**Getting Started** 

Appeon InfoMaker® 2017 R2 FOR WINDOWS

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Appeon Limited, 1/F, Shell Industrial Building, 12 Lee Chung Street, Chai Wan District, Hong Kong.

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# **1 Welcome to InfoMaker**

InfoMaker is a powerful yet easy-to-use reporting and data maintenance tool that lets you work with data in the Windows environment.

With InfoMaker you can create sophisticated forms, reports, graphs, crosstabs, and tables, as well as applications that use these as building blocks. You can also move data between databases using the InfoMaker data pipeline.

This chapter describes:

- What you make with InfoMaker
- Starting InfoMaker
- Using the tutorials
- InfoMaker samples

# 1.1 What you make with InfoMaker

#### Forms

Employee Data	N	- • ×
Employee	Data	
Employee ID: 102	Birth Date:	06/05/1966
Manager ID: 501	Soc. Sec. No.:	017-34-9033
Emp. First Name: Fran	Salary:	\$45,700.00
Emp. Last Name: Whitney	Start Date:	02/26/1994
Department ID: 100	Termination Date:	00/00/0000
Street: 49 East Washington Street	Status:	<ul> <li>Active</li> </ul>
City: Needham		O Terminated
State: MA		On Leave
Zip Code: 02192-	Health Insurance:	✓
Phone: (617) 555-3985	Life Insurance:	
Sex: O Male	Day Care:	

#### Reports

Total Co Salary P	•	ation Rep nefits	Value of I	health ins. = \$4,8 ife insurance = \$ day care = \$5,20	6(5.43 x sa	alary)/1,i	000	Page 2 of 3 2017/6/20
Department ID	Employee ID	Employee First Name	Employee Last Name	Salary	Health Ins.	Life Ins.	Day Care	Salary Plu Benefits
200	902	Judy	Snow	\$87,500	1	1		\$92,775
	913	Ken	Martel	\$55,700		1		\$56,002
	930	Ann	Taylor	\$46,890	1	<b>V</b>	<b>V</b>	\$57,145
	949 1021	Pamela Paul	Savarino. Sterling	\$72,300 \$64,900		<ul><li>✓</li></ul>		\$77,493 \$75,252
	1039	Shih Lin	Chao	\$33,890		V	<b>V</b>	\$39,274
	1101	Mark	Preston	\$37,803	1	1		\$42,808
	1142	Alison	Clark	\$45,000		1	1	\$50,444
	1162	Kevin	Goggin	\$37,900	<b>v</b>	1		\$42,906
	1446	Caroline	Yeung	\$32,300		1		\$32,475

#### Crosstabs

Number of employees by department and salary 30,000 includes up to 39,999	Dept Id					Total number of employees making the salary
Salary	100	200	300	400	500	
20000				2	5	7
30000	3	8	2	5	2	20
40000	6	5	2	5	1	19
50000	4	3	3	2	1	13
60000	4	1		2		7
70000	2	1	1			4
80000	2	1				3
90000	1					1
130000			1			1
Total number of employees in the department	22	19	9	16	9	

# **Reports with nested reports**

2/21/2001	Customers a	and Ord	ers				
Customer Information			Orde	r Hist	ory		
Customer ID: 105							
First Name: Laura	Sales	Order Date	Sales	Line #		Quantity	Date
Last Name: McCarthy	Order ID		Rep ID		ID		Shipped
Address: 1210 Highway 36	2006	09/28/98	299	1	_300	48	09/28/98
City: Carmel							
State: IN		03/30/98	105		501	36	03/31/98
Zip Code: 46032-				'			
Phone Number: (317) 555-8437							
Company Name: Amo & Sons	2454	06/16/98	299	1	501	36	06/17/98
	2568	09/21/98	856		600	36	09/22/98
				2	601	36	09/22/98

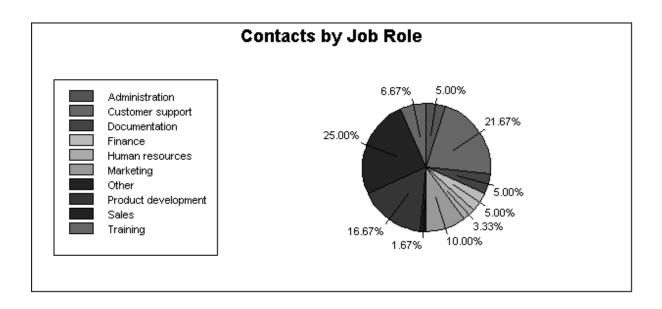
# **Composite reports**

2/2	1/2001		Quick Re	eferer	ice	Inform	nation		
	Product	s and Current Inv	entory		ור	Sales	Representatives ar	id Total Number of	Orders
Product ID	Product Name	Product Description	Uni1 Price	Number In Stoci		Sales Rep ID	Marne	Phone	Yumber of Orders
300	Tee Shirt	Tank Top	\$0.00	- 28		129	Philip Chin	(404) 555-234	1 57
301	Tee Shirt	V-neck	\$14.00	- 54		195	Ward Dill	(617) 555-214	4 50
302	Tee Shirt	Crew Neck	\$14.00	75		200	Rollin Overbey	(510) 555-725/	5 114
400	Baseball Cap	o Comor Cap	50.00	112		467	James Klobucher	(713) 555-862	7 56
401	Baseball Cap	o Wool cap	\$10.00	12		667	Wary Garcia	(713) 555-343	1 54
500	Visor	Cloth Visor	\$7.00	36		690	Kathleen Politas	(617) 555-392	52
501	Visor	Plastic Visor	\$7.00	- 28		856	Samuel Singer	(508) 555-325/	5 66
600	Sweatshirt	Hooged Sweats	hiπ \$24.00	- 39		902	Wolra Kelly	(508) 555-376	9 47
601	Sweatshirt	Zipped Swearsh	iπ \$24.00	32		949	Pamela Savarino	(310) 555-1851	7 53
700	Shorts	Cotton Shorts	\$15.00	- 80		1142	Allson Clark	(\$10) \$55-243	7 57
	Product	Sakes Summary		[			Sales Sum	marv	
Product ID	Product Name	Product Description	Quanity Sold Do	lars	٦p	ped Sweat Wool	shin-	mary	
300	Tee Shirt	Tank Top	2364 \$21	1,276			eck-		
301	Tee Shirt	V-neck	2388 \$33	3,432		Tank		-	
302	Tee Shirt	Crew Neck	2148 \$30	>,072		Plastic V			
400	Baseball Cap	Cotton Cap	3278 \$25	7,502	Hoo	aea Sweat	shin-		
401	Baseball Cap	Wool cap	2701 \$27	7,010		Crew 4	leck -		
500	Visor	Cloth Visor	2652 \$18	8,564		Cotton Sh	ions -		
501	Visor	Plastic Visor	*··	7,556		Cotton	Cap-		
600	Sweatshirt	Hooged Sweatshirt	*	3,440		Cloth V	lisor-		
601				·			0 20000	40000 60000	30000
	Sweatshirt	Zipped Sweatshirt		5,376				Dollars	
700	Shorts	Cotton Shorts	4636 \$68	3,040 L					

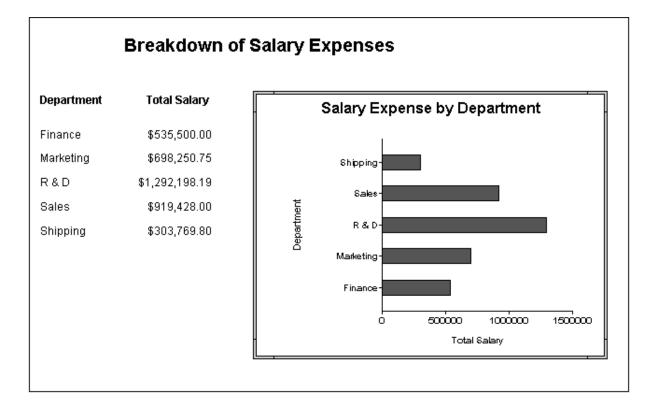
# Forms with reports

Maintain Contact Information						
Id: 4						_
Last Name: Lambert	Add a cont	act	Delete a d	ontact	Save changes	;
First Name: Terry		Id	Last Name	First Name	Job Role	
Job Role: Administration		1	Hildebrand	Jane	Marketing	
Street: 204 Page St.		2	Simmon	Larry	Sales	Ш
City: Canton		3	Critch	Susan	Product developme	
-		4	Lambert	Terry	Administration	
State: MA		5	Sullivan	Dorothy	Customer support	
Zip: 94608		6	Paull	Rose	Finance	
		7	Glassmann	Beth	Product developme	
Phone: (617) 555-2246		8	Powell	Gene	Training	
Fax: (617) 555-3692		9	Fish	Jeffrey	Marketing	
		10	Clarke	Molly	Sales	
		11	Kelley	William	Documentation	
		12	Lyman	Thomas	Customer support	-
		•	III			

### Graphs



# **Reports with graphs**



#### Labels



## Applications

Contact	2									
ontacts										
Obje	ts Window	Help								
	Ad Hoc 🛛 👔		<u>@</u>	<b>1</b> 4						
	By Job			Exit						
	· -									
	Data									
_										
👰 Co	ntacts									
File	Display Row	vs Windo	w Help							
11			· · ·							-
- P	h 📻	20		75.*	14					
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For	rms Reports	Ad Hoc	Ву Јођ	Data E	xit					
For	rms Reports	Ad Hoc	Ву Јов	Data E	xit	<b>∏</b> ¢ Close				
For	rms Reports	Ad Hoc	Ву Јођ	Data E	xit	<b>∏</b> ¢ Close				
For Retr	rms Reports	Ad Hoc	By Job Next	Data E Last F	xit					
For Retr	rms Reports	Ad Hoc Prior	By Job Next	Data E Last F	ixit		City	State		
For Retr	rms Reports	Ad Hoc Prior	By Job Next	Data E Data E Last F	ixit	Close	City Danvers			
For Retr Id	rms Reports  Report - contac  Last Name	Ad Hoc Prior ctgrid_with	By Job Next D_promptin Product d	Data E Last F g b Role evelopment	ixit	Street nter St.		State	Zip	
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For Retr Id 3 7 19 26	rms Reports	Ad Hoc Prior First Nan Susan Beth David Joan	By Job Next Product d Product d Product d Product d Product d	Data E Data E Data E Data E Last E g b Role evelopment evelopment evelopment	xit rint 45 Cer 44 Oal 16 Wa 109 W	Street nter St. k St. verly Rd. iestborn Ter.	Danvers Lexington Burlington Burlington	State MA MA MA MA	Zip 01923 02173 01803 01803	
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For Retr Retr Id 3 7 19 26 30 35 40 42 46	Report - contac First Report - contac Last Name Critch Glassmann Chin Mulley DeMarco Burrill Jordan Haddad Crossland	Ad Hoc Prior Etgrid_with First Nan Susan Beth David Joan Michael Dana Susan Paul Ellen	By Job Next Product d Product d Product d Product d Product d Product d Product d Product d Product d	Data E Data E	xit 45 Cer 44 Oal 16 Wa 109 W 23 Cla 234 Be 95 Gor 829 Pl 27 Rus	Street nter St. k St. verly Rd. /estborn Ter. ire Ave. eacon St. rdon St. leasant St. sh Rd.	Danvers Lexington Burlington Bedford Needham Burlington Schaumburg Burlington	State MA MA MA MA MA MA IL MA	Zip 01923 02173 01803 01803 01730 02192 01803 60173 01803	

# **1.2 Starting InfoMaker**

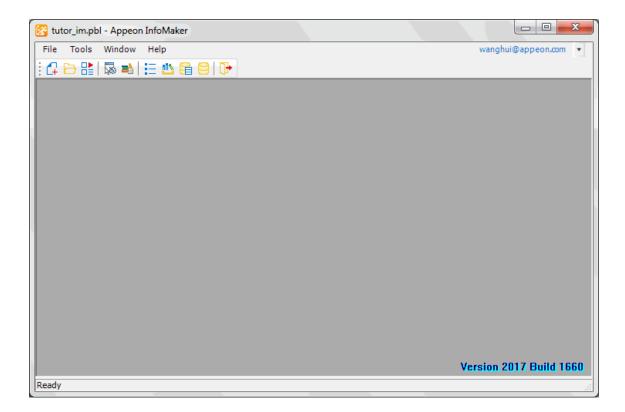
These instructions assume that you have already installed InfoMaker.

For information, see the Installation Guide.

#### To start InfoMaker using the Windows Start menu:

• Display the Start menu and select Programs, then Appeon, then InfoMaker 2017 R2, and then InfoMaker 2017 R2. The initial InfoMaker screen displays.

The initial screen includes the PowerBar, which has buttons for creating new objects and accessing existing objects.



# 1.3 Using the tutorials

#### Requirements

To use the InfoMaker tutorials, you need to:

- Be connected to the Demo Database
- Have the sample library named tutor\_im.pbl open

## If you do not have SQL Anywhere

This tutorial uses the PB Demo Database database that installs with InfoMaker. This is a SQL Anywhere database and requires an SQL Anywhere engine.

• If you do not already have SQL Anywhere on your local machine or server, you must install it now. You can download and install SQL Anywhere from the SAP web site. If you installed InfoMaker in a nondefault location, you must make sure that the odbc.ini registry entry defining the Demo Database as a data source points to the correct location of the SQL Anywhere engine.

#### Approximate times

Tutorial	Lesson	Minutes
InfoMaker Basics	1	15
Form	2	45
Report	3	45

# Table 1.1:

Tutorial	Lesson	Minutes
Table	4	45
Query	5	15
Graph	6	30
Environment	7	30
Application	8	30

# 1.4 InfoMaker samples

The InfoMaker sample library named tutor\_im.pbl is the library you use in the tutorials. The tutor\_im.pbl library includes sample reports, forms, a sample query, and a sample pipeline. After you have finished with the tutorials, you might want to look at these samples to learn more. Many of the samples are discussed in the InfoMaker User's Guide.

# 2 LESSON 1: InfoMaker Basics Tutorial

The InfoMaker world is a friendly and efficient environment in which to work. It provides features such as movable toolbars, pop-up menus, views, and more.

In this tutorial you learn the basic skills you need for working in InfoMaker.

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Total C	ompensal Plus Bene	tion Rep		Value of hea Value of life	lth ins. = \$4,80 insurance = \$( care = \$5,200	0	'P	age"+pag day()		
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#### How long does this tutorial take?

About 15 minutes.

# 2.1 Start InfoMaker

Where you are

> <u>Start InfoMaker</u>

Access objects and painters

Use toolbars

Use views

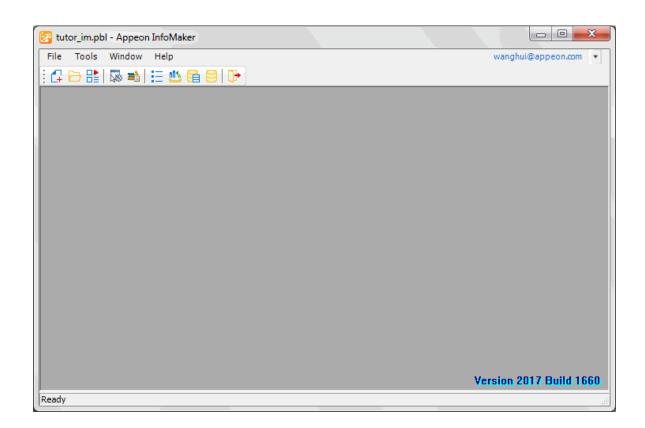
Use pop-up menus

Use the mouse with controls

Now you start InfoMaker.

- 1. Display the Windows Start menu.
- 2. Select Programs, then Appeon, then InfoMaker 2017 R2, and then InfoMaker 2017 R2.

The InfoMaker initial screen displays. It includes the PowerBar, which has buttons for various InfoMaker activities.



# 2.2 Access objects and painters

Where you are

Start InfoMaker

> Access objects and painters

Use toolbars

Use views

Use pop-up menus

Use the mouse with controls

#### What click means

The word click is used throughout these tutorials to mean move the pointer somewhere and press the left (primary) mouse button. For example, click the Open button.

1. Click the Open button in the PowerBar.

😵 tutor_im.pbl - Appeon InfoMaker									
File	Tools	Window	Help						
L+ New		Preview	Sel Lib	Eib List	To-Do List	Library	DB Prof	Database	Exit

Your toolbar might not be showing text on the buttons. You learn how to display text in a few minutes.

The Open dialog box displays. It lists the objects in the current library, which is the library named tutor\_im.pbl. This library includes samples that come with InfoMaker; it is the library you use for the tutorials.

Open	x
Object:	
attrib_birthdays	ОК
attrib_birthdays attrib_crossout_and_visible	Cancel
attrib_escapement_rotation	Help
attrib_font_height attrib_format	
attrib_graybar_emp_total_comp	
Comments:	1.1.1.
Sample: Demonstrates the color and underline a by highlighting birthdays of employees that fall current month.	
Library:	
C:\Users\Public\Documents\Appeon\InfoMal	ker 17.0\Tutor
<	Þ
Object Type:	
Reports	•

#### If the current library is not tutor\_im.pbl

If the current library is not tutor\_im.pbl, you need to change it. Select File>Select Library and use the Browse page to navigate to tutor\_im.pbl in the Tutorial folder (in the folder structure where InfoMaker is installed). Then click the Open button in the PowerBar.

2. Select Reports as the Object type at the bottom of the dialog box.

Click expenses (scroll the list until you see the report named expenses) and then click OK.

Open	×
Object:	
expenses	ОК
emp_telephone_attributes emp_total_compensation employee_grouped_salary expenses	Cancel Help
printer_sales tabular_orders v	
Comments:	
Tutorial: Used for tutorial. Expenses for years 1997	1995-
Library:	
C:\Users\Public\Documents\Appeon\InfoMa	ker 17.0\Tutor
٠ III ::	۱.
Object Type:	
Preports	<b>▼</b>

InfoMaker connects to the Demo Database and the report displays in the Report painter. You learn about the Report painter in the Report tutorial. For now you learn basic skills.

First you are going to make a few settings in your working environment.

3. If InfoMaker does not fill your screen, click the maximize box in the upper-right corner of the InfoMaker frame.

InfoMaker fills the screen.

4. Select View>Layouts>(Default) from the menu bar.

InfoMaker displays the Report painter default layout of views. (Your views may already have been set to the default. Now you know how to get back to the default anytime you want to.)

Now you close the tabbed view at the bottom right of the screen since you are not going to be using those views.

5. Move the pointer to a position just above the up-arrow (at the lower right edge to the right of DB Name) until the title bar of the view drops (displays).

😰 tutor_im.pbl - ODB [PB Demo DB V2017] - Appeon InfoMaker	
File Edit View Insert Format Design Rows Tools	Window Help wanghui@appeon.com •
: 🗗 🗁 🔡   🐺 🛋   🗄 👛 😂   🕩   :	Tahoma 🔻 12 🔻 月
🖽 🗗 🄄 🖘   A +   X 🖻 টি 🏹   ½ 🏹   🗉 ×	W3
expenses * - Report	
Expenses	
	Units
Amount	1/1000 Inch (2)
in thousands	Timer Interval:
Header1 1: Header group year1	0 🖈
	Hide Gray Line on page brea
description 2: Header group description †	Web DataWindow
	Show Backcolor On XP
Evnon	000 for 2002
	Column Specification - expenses
xml version="1.0" encoding="UTF-16LE" standalone= expenses	Name         Type         Prompt DB Name           1         year         char(4)         fin data.year
expenses_row	2 guarter char(2) fin data.guarter
i i i i i i i i i i i i i i i i i i i	3 amount decimal(0) fin_data.amount
year	
description -	5 description char(50)  fin_code.description
XML - (untitled)	Column Specification - expenses (Data - expenses) Control List
Ready	Page 1 of 3

6. Continue moving the pointer until it is over the Close button (the button with the X in it) and click it.

The tabbed view closes and the Export/Import XML Template view (originally positioned on the bottom left) displays in the full horizontal space.

7. Now close the Export/Import XML Template view using the same process you used with the tabbed view.

Your screen should look something like this now. Because InfoMaker offers so much flexibility in arranging your work area, your screens may not match many of the pictures in the remaining lessons. It does not matter as long as you are getting the correct results.

😵 tutor_im.pbl - ODB [PB Demo DB V2017] - Appeon InfoMaker	1/2 - D - X
File Edit View Insert Format Design Rows Tools Window Help	wanghui@appeon.com 🔹
🗄 🛟 🗁 🔡 🔜 🕌 🔛 😭 😂 🕞 🕩	<b>→</b> 12 <b>→</b> B
: 🔚 ⊖   🌣 🌣   A +   X 🗈 û �   I₂ T₂   Ε ×	
expenses * - Report	
Expenses for year	General Background F
Amount in thousands	Units 1/1000 Inch (2) Timer Interval:
Header1 1: Header group year1	0
	🔄 Hide Gray Line on page brei
description 2: Header group description †	Web DataWindow
quart amouni	Show Backcolor On XP
Detail	
sum(ar	
2: Trailer group description †	
1: Trailer group year 1	
Expenses for 2003	
Ready Page 1 of 3	

# 2.3 Use toolbars

Where you are

Start InfoMaker

Access objects and painters

> <u>Use toolbars</u>

Use views

Use pop-up menus

Use the mouse with controls

InfoMaker comes with several toolbars: the PowerBar, three PainterBars, and the StyleBar. You can control whether individual toolbars display and where they display. You can also choose whether to display text in the toolbars.

In this exercise you learn how to use toolbars.

(You can also create your own toolbars and customize toolbars, but this tutorial does not cover these advanced activities.)

1. Move the pointer to the toolbar area.

Click the right mouse button.

The pop-up menu for the toolbars displays.

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#### About the pop-up menu

Throughout InfoMaker, pop-up menus provide a fast way to do things. The right mouse button accesses the pop-up menu. The menu changes depending on the painter you are in and where you are when you click the right mouse button.

2. Select Floating from the pop-up menu.

The PainterBar changes to a floating toolbar.

3. Move the pointer to the title bar and drag the floating toolbar to another location.

#### How to drag the toolbar

Press and hold the left mouse button. While holding the button, move the mouse (an outline displays to show the current location of the toolbar). When the toolbar is where you want it, release the mouse button.

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You can put toolbars in different locations: left, top, right, bottom, and floating.

4. Select Tools>Toolbars from the menu bar.

#### **About the notation Tools>Toolbars**

Throughout the tutorials, commands issued from the menu are shown as a sequence of choices separated by arrows. For example, to select Tools>Toolbars means to select Tools from the menu bar and then Toolbars from the menu items.

The Toolbars dialog box displays. Notice that the PowerBar is highlighted. If the PowerBar is currently displayed, the middle button says Hide.

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- Click PainterBar1 and then click the Bottom button.
   The PainterBar displays at the bottom of the InfoMaker screen.
- Click Show Text to make text display on the buttons.
   Click the Close button to close the dialog box.

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Ready Page 1 of 3	

7. Move the pointer over one of the toolbar buttons.

After a couple of seconds, the PowerTip that tells what the button does displays.

8. Click the small black triangle next to the Text button in the PainterBar.

The Objects drop-down toolbar displays. It holds buttons for the controls you can add to reports. (A text control is one type of control you can add to a report.) Several buttons on other PainterBars have small black triangles. These buttons belong to other drop-down toolbars (such as the Border drop-down toolbar).

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9. Click in the white space to the right of the toolbar to make the Objects drop-down toolbar close.

Now you know several ways to move the toolbars and you know how to turn text display on and off.

For the rest of these tutorials, you should move the toolbars where you like to have them. Your screen may not match the pictures in this book, depending on where and how you display toolbars.

# 2.4 Use views

Where you are

Start InfoMaker

Access objects and painters

Use toolbars

> <u>Use views</u>

<u>Use pop-up menus</u>

Use the mouse with controls

InfoMaker provides a number of views in each painter to make it easier for you to work. The View menu in each painter lists the views available to you. You can use the View menu items to display and close the various views. In this exercise you learn how to manage views.

1. Move the pointer to the upper-left corner of one of the views.

When the bar drops and the pushpin displays, click the pushpin.

Repeat this for the other two views.

Now the three views have title bars that identify the Design view, the Preview view, and the Properties view.

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 Move the pointer to the Preview view#s title bar and press the right mouse button. Select Float from the pop-up menu.

Now the view is floating. You can drag it wherever you want it and resize it as needed.

3. Display the pop-up menu on the Preview view#s title bar and select Dock.

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The view goes back to where it was. There are more options for moving views around, including dragging them and overlaying one view on top of another to make tabbed views. You can read about these in the InfoMaker User#s Guide.

# 2.5 Use pop-up menus

Where you are

Start InfoMaker

Access objects and painters

Use toolbars

Use views

> <u>Use pop-up menus</u>

Use the mouse with controls

Now you take a look at pop-up menus and the Properties view.

1. Move the pointer to the words Expenses for.

Click the right mouse button.

The pop-up menu for a piece of text (also called a text control) displays. Whenever you position the pointer on something that has a pop-up menu and click the right mouse button, the appropriate menu items display.

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2. If the Properties view is not currently displayed, select Properties from the pop-up menu.

Look at the contents of the Properties view.

The Properties view displays the properties of the Expenses for text control because the text control is currently selected. For a text control, the Properties view has five tabs, which identify five pages of information. The General page is on top.

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#### About the Properties view

The Properties view displays a collection of information about a control or the report object itself. You use the Properties view to find out and set properties.

For example, a text control has properties such as font, font size, location, border, and so on. You can see the current settings for these properties on the control#s property sheet. You can also change them there.

3. Position the pointer on the word description and click.

The Properties view now displays information for the data column (Column control) called description. The property pages and options are different from those for the text control.

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4. Click the word Font on the Font tab.

The Font page comes to the front of the Properties view.

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5. Select the font size 14 from the drop-down list in the Size box.

The font size of the text control changes to 14 in the Properties view, the Design view, and the Preview view.

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6. Select the font size 10 from the drop-down list in the Size box.

The font size of the text control changes back to 10.

## 2.6 Use the mouse with controls

Where you are

Start InfoMaker

Access objects and painters

Use toolbars

Use views

Use pop-up menus

> <u>Use the mouse with controls</u>

Now you move some of the controls in the report. Be sure not to save the changed report, because you will use the original report later. When you leave the Report painter, you are prompted to save changes. The instructions remind you to say no.

1. Select Design>Options from the menu bar.

The Report Options property sheet displays.

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In this property sheet, you turn on some design options that make it easier to work with controls in reports.

2. Select the Show Grid check box.

Select the Show Ruler check box. Select the Show Edges check box.

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3. Click OK.

Now edges display around the controls, and a grid and ruler display in the Report painter Design view.

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4. Click the text control with the text Expenses for.

Black boxes in the corners mean the control is selected.

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5. Press and hold the Ctrl key.

Click the year box and the Amount in thousands box.

Release the Ctrl key.

Now you have selected all three controls.

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6. Press and hold the Left Arrow key until the controls are on the far left of your screen.

Release the key.

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7. Move the pointer to the word Expenses.

Make sure the controls are still selected.

Press and hold the left mouse button.

Drag all the controls to the right.

Release the mouse button.

While you are dragging, gray boxes show the current position of the controls.

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When you release the mouse button, you drop the controls where the pointer is currently positioned. Notice that the controls are still selected as indicated by the little black boxes.

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8. Click in an unused area to deselect the controls.

The controls are no longer selected (the black boxes are gone).

Amount in thousands

Getting Started 9. Move the pointer to the position shown here by the big black dot.

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10.Press and hold the left mouse button.

Drag the mouse diagonally down and to the right until the box surrounds or touches all three controls.

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11.Release the mouse button.

All the controls are selected. This is called lasso selection. You can use this lasso technique to select many controls quickly. Then you can move them all together or change something about them all at once.

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12.Press the Delete key.

The three selected controls are deleted, but you really did not mean to delete them.

13.Select Edit>Undo Control Delete from the menu bar.

The deletion is reversed.

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#### About Undo

You can undo as many operations as necessary.

14.Select File>Close from the menu bar.

InfoMaker displays a message box to see whether you want to save the changes you have made to the expenses report. You do not want to save changes. You use this report later in the Graph tutorial.

Report	×
?	Save changes to c:\users\public\documents\appeon\infomaker 17.0\tutorial\tutor_im.pbl(expenses)?
	Yes No Cancel

15.Click No.

The Report painter closes. Now you are ready to learn how to create a form.

# **3 LESSON 2: Form Tutorial**

## This tutorial requires the Form painter

The Form painter component of InfoMaker is optional; you must have installed it to do this tutorial.

Forms display data and provide a way to interact with the database. You can use forms to view information and change it.

In this tutorial you create a form that updates the contact table. The form includes:

- All columns in the contact table
- Buttons for maintaining contact information
- A report that provides access to all information in the contact table

Maintain Contact Information					
Id: 1					_
Last Name: Hildebrand	Add a contact	Delete a d	contact	Save changes	•
First Name: Jane		d Last Name	First Name	Job Role	
Job Role: Marketing	1	Hildebrand	Jane	Marketing	
Street: 1280 Washington St.	2	Simmon	Larry	Sales	=
City: Emeryville	3	Critch	Susan	Product developme	
	4	Lambert	Terry	Administration	
State: MI	5	Sullivan	Dorothy	Customer support	
Zip: 94608	6	Paull	Rose	Finance	
Phone: (510) 555 1200	7	Glassmann	Beth	Product developme	
Phone: (510) 555-1309	8	Powell	Gene	Training	
Fax: (510) 555-4209	9	Fish	Jeffrey	Marketing	
	10	Clarke	Molly	Sales	
	11	Kelley	William	Documentation	
	12	Lyman	Thomas	Customer support	÷
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#### How long does this tutorial take?

About 45 minutes.

# 3.1 Create the basic form

Where you are

> <u>Create the basic form</u>

Preview (run) the form

Save the form

Add buttons to the form

Enhance the form

#### Use the form to update the database

Now you create the basic form. To do this you select a predefined InfoMaker form style and the data to be displayed in the form.

1. Click the New button in the PowerBar.



The New dialog box displays.

2. Select the Object tab if it is not already on top.

The Object tab page contains the icon for creating any type of new form and icons for the various report presentation styles.

3. Select the Form icon and click OK.

The New Form dialog box displays. It contains the data sources and form styles you can choose.

New Form				×
Data Source	SQL Select	Query		OK Cancel Help
Form Style	Grid	Master/Detail One-To-Many	Master/Detail Many-To-One	

## About data sources

Quick Select is simply for choosing columns and specifying selection criteria and Gettisgrifing; which is what you want for this tutorial. SQL Select is for using other SQL options not available with Quick Select.

Query is for specifying the name of a query that describes the data source. You define queries in the Query painter.

#### About form styles

A form style is a predefined way of presenting and processing information on the form. Usually the style includes the common database functions (insert, delete, and update).

InfoMaker comes with a set of form styles. PowerBuilder users at your site can create additional styles, which also display in the New Form dialog box.

4. Click Quick Select and Free Form to select them (the words are highlighted).

New Form		X
Data Source Quick Select	Query	OK Cancel Help
Form Style	Master/Detail One-To-Many Many-To-One	

5. Click OK.

The Quick Select dialog box displays. In this dialog box you select the table to use and the columns you want to include in the form.

Quick Select		×
<ol> <li>Click on table(s) to select or deselect</li> <li>Select one or more columns.</li> <li>(Optional) Enter sorting and selection criteria below.</li> </ol>	To display comments for a table or column, click the right mouse button.	OK Cancel
Tables:	Columns:	Add All
ponus   call_track   contact   customer   department   employee   exam_xref_info   examples	4	Help
Column: Sort: Criteria: Or:		

6. Click contact in the Tables box.

The columns for the contact table display. You include all columns in the form.

Quick Select		×
<ol> <li>Click on table(s) to select or deselect</li> <li>Select one or more columns.</li> <li>(Optional) Enter sorting and selection criteria below.</li> </ol>	To display comments for a table or column, click the right mouse outform.	OK Cancel
Tables:	Columns:	Add All
contact <ul> <li>&lt; □□</li> <li>Comments:</li> <li>A list of contacts</li> </ul>	id last_name first_name title street city state zip ◀ Ⅲ	Help
Column: Sort: Criteria: Or:		•

7. Click the Add All button.

All columns are selected. They display in a grid at the bottom of the dialog box.

Quick Sele	ect	$\sim$			×
2. Select 3. (Option	n table(s) to select or one or more columns nal) Enter sorting and ion criteria below.		To display comm table or column, the right mouse	click	OK Cancel
Tables:			Columns:		Add All
Comment A list of co	s:	4	id last_name first_name title street city state zip ◀ ∭		Help
Column:	Id	La	st Name	First Name	
Sort:					
Criteria:					
Or:					<b>v</b>
	•				•

You could reorder columns and enter sorting and selection criteria in this grid. For your form you do not need to do any of these things.

8. Click OK.

Your form displays. It uses the columns and form style you selected. The text labels come from the extended attribute system tables. Instead of data, the names of the database columns appear where the data values will be displayed.

📋 (Untitled) * - Form	
Id: contact	
Last Name: contact_last_name	
First Name: contact_first_name	
Job Role: contact_title	
Street: contact_street	
City: contact_city	
State: contact	
Zip: contact_zip	
Phone: contact_phone	
Fax: contact_fax	
	-
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## The extended attribute system tables

The extended attribute system tables store information about data such as labels and display formats. When you create forms and reports, InfoMaker uses extended attribute information to create the basic form or report.

You put information into the extended attribute system tables using the Database painter. For example, in the Table tutorial you define the label Job Role: for the title column. Then when you use the title column in a form or report, InfoMaker uses the label Job Role:.

# 3.2 Preview (run) the form

Where you are

Create the basic form

> <u>Preview (run) the form</u>

Save the form

Add buttons to the form

Enhance the form

Use the form to update the database

Now you preview the form. Running the form is the way you preview it while you are designing it and the way you use it when you have finished designing it.

## 1. Click the Run button in the



InfoMaker runs your form, which includes going to the database and retrieving data.

Notice that real values have replaced the column names in the form.

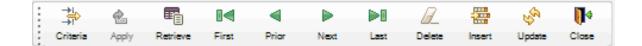
🕕 Untitled	
Id: 1	
Last Name: Hildebrand	
First Name: Jane	
Job Role: Marketing	
Street: 1280 Washington St.	
City: Emeryville	
State: MI	
Zip: 94608	
Phone: (510) 555-1309	
Fax: (510) 555-4209	

The PainterBar now has buttons that let you view and change data. Now you view the data using the form.

2. Click the Next button.

Click the Last button.

Click the First button.



This moves you among the rows. Later in this tutorial you insert a new row.

3. Click the Close button in the



<u>You return to the Form painter Layout view.</u>

# 3.3 Save the form

Where you are

Create the basic form

Preview (run) the form

> <u>Save the form</u>

Add buttons to the form

Enhance the form

Use the form to update the database

Now you save the form and give it a name.

1. Click the Save button in the



PainterBar.

The Save Form dialog box displays with the pointer positioned for you to type a name for the form.

- 2. Type contact\_maintenance.
- 3. Click in the Comments box and type This form updates my contact table.

Save Form	×
Forms:	
contact_maintenance	ОК
customer_details customer_list customer_maintenance departments_and_their_employees employee_data	Cancel Help
Comments:	
This form updates my contact table.	* *
Library:	
C:\Users\Public\Documents\Appeon\InfoMaker	17.0\Tutorial\
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4. Click OK.

InfoMaker saves your form. Anytime you have completed a unit of work, you should save. To save, select File>Save from the menu bar or click the Save button.

# 3.4 Add buttons to the form

Where you are

Create the basic form

Preview (run) the form

Save the form

> <u>Add buttons to the form</u>

Enhance the form

Use the form to update the database

Now you add three buttons to the form. Later when you run the form, you can click the buttons to add and delete contacts.

Layout	
Id: contact	A
Last Name: contact_last_name	
First Name: contact_first_name	Add a contact
Job Role: contact_title	Delete a contact
Street: contact_street	
City: contact_city	Save changes
State: contact	
Zip: contact_zip	
Phone: contact_phone	
Fax: contact_fax	
<	4

#### **About controls**

The items you see on a form are called controls. For example, a button is a type of control. The controls you can use on a form are listed in the Insert menu on the menu bar.

- 1. Select Insert>CommandButton from the menu bar.
- 2. Move the pointer to an empty area of the form and click.

If you need to move the button, drag it.

#### How to drag

Position the pointer over an object, and press and hold the left mouse button. While pressing the button, move the mouse until the object is where you want it. Then release the mouse button.

A button with the text none displays. The text none also displays in a text box in the StyleBar.

🕼 Layout	
Id: contact	<u>^</u>
Last Name: contact_last_name	
First Name: contact_first_name none	
Job Role: contact_title	
Street: contact_street	
City: contact_city	
State: contact	
Zip: contact_zip	
Phone: contact_phone	
Fax: contact_fax	
] * 🔤	· · ·

# If the text box does not display

This means the button is not selected. To select the button, click it. Small black boxes in the corners mean it is selected.

3. Make sure the button is still selected.

Type Add a contact.

The text displays on the button as you type and in the text box in the StyleBar.

4. Click B (for bold) on the StyleBar.

Layout 3		
Id: contact		<b>_</b>
Last Name: contact_last_name		
First Name: contact_first_name	Add a contact	
Job Role: contact_title		
Street: contact_street	]	
City: contact_city		
State: contact		
Zip: contact_zip		
Phone: contact_phone		
Fax: contact_fax		
		-
		•

The text displays in bold. Next you make the button work. To do this you associate an InfoMaker action with the button.

# Using the StyleBar

You can use the StyleBar to change text fonts, font size, and font style (bold, italic, and underline). You can also use it to specify text alignment (left-aligned, centered, and right-aligned).

To use options on the StyleBar, you select a control with text and then click the appropriate button on the StyleBar.

5. Move the pointer to the Add a contact button.

Press the right mouse button to display the pop-up menu for the button.

Select Action from the pop-up menu.

Layout		
Id: contact		
Last Name: contact_last_name		
First Name: contact_first_name	Add a co	ontact
Job Role: contact_title	1	Action
Street: contact_street		Cut
City: contact_city	E	Сору
State: contact	<ul><li></li></ul>	Delete
Zip: contact_zip		Duplicate
Phone: contact_phone	<b>1</b>	Bring to Front
Fax: contact_fax		Send to Back
		Properties
	_	
		-
I = 1		•

The Select Action dialog box displays. It lists the actions you can assign to the button.

Select Action	×
Select an action from the list below and provide parameters as required.	ОК
Actions:	Cancel
Apply_Criteria Cancel_Updates Clear_Filter Close	Parameters
Delete_Row Filter_Dialog	Help
	)

# About InfoMaker actions

An action is what you want to have happen when the button is clicked.

Whenever you associate an InfoMaker action with a button, InfoMaker creates the code to enable the button to perform the action. You do not see the code. All you have to do is select the action for the button.

InfoMaker comes with predefined actions. PowerBuilder users at your site can create additional actions, which also display in the Select Action dialog box.

6. Scroll through the list of actions and double-click Insert\_Row.

Select Action	×
Select an action from the list below and provide parameters as required.	ОК
Actions:	
Filter_Dialog	Cancel
First_Row Import_File	Parameters
Insert_Row	
Last_Row	
Next_Row T	Help

InfoMaker creates the code that enables your Add a contact button to display a blank form so that you can add information for a new contact. You will see the button work later.

Now you add two more buttons.

7. Select Insert>CommandButton from the menu bar.

Move the pointer below the Add a contact button and click.

Type Delete a contact.

Display the Delete a contact button's pop-up menu and select Action.

Select the action Delete\_Row from the Select Action dialog box.

Click OK.

Select Action	×
Select an action from the list below and provide parameters as required.	ОК
Actions: Apply_Criteria Cancel_Updates	Cancel
Clear_Filter Close Delete Row	Parameters
Filter_Dialog	Help

8. Select Insert>CommandButton from the menu bar.

Move the pointer below the Delete a contact button and click.

Type Save changes.

Display the Save changes button's pop-up menu and select Action.

Select the action Update\_Row from the Select Action dialog box.

Click OK.

Now you have three buttons. InfoMaker has created the code that enables the buttons to work.

Layout	
Id: contact	·
Last Name: contact_last_name	
First Name: contact_first_name	Add a contact
Job Role: contact_title	Delete a contact
Street: contact_street	
City: contact_city	Save changes
State: contact	
Zip: contact_zip	
Phone: contact_phone	
Fax: contact_fax	
<	

# 3.5 Enhance the form

Where you are

Create the basic form

Preview (run) the form

Save the form

Add buttons to the form

> Enhance the form

Use the form to update the database

In this exercise you:

- Add a title
- Change the border for data

- Move the buttons
- Add a report

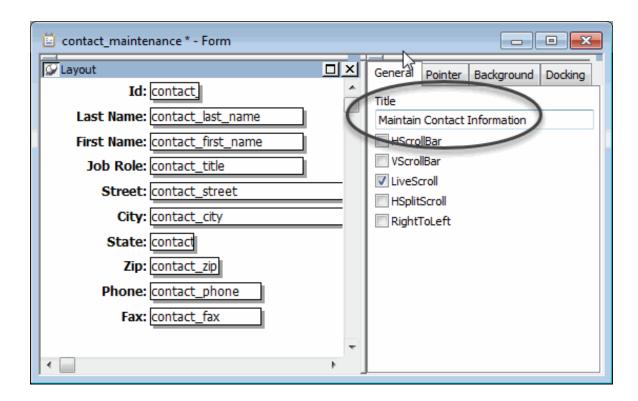
# Add a title

1. Move the pointer to an unused area of the form and click.

This causes the Properties view to display the form's properties.

2. Type Maintain Contact Information in the Title box.

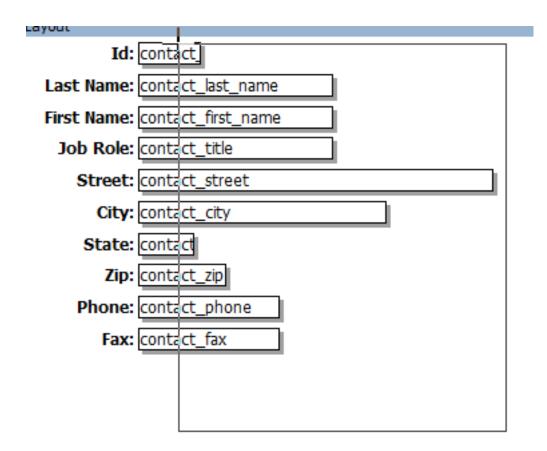
The title does not display now. When you run the form, the title displays.



## Change the border for data

Now you change the border for all data values. This improves the form's appearance. You use lasso select to select the data.

- 1. Move the pointer near the bottom of the data and on the right.
- 2. Press and hold the left mouse button and drag diagonally to the left and up until the box (the lasso) touches all the data.



3. Release the mouse button.

All the objects inside the box are selected. Black boxes display in all the corners.

Layout	
Id: contact	<u>^</u>
Last Name: contact_last_name	
First Name: contact_first_name Add a conta	ct
Job Role: contact_title Delete a cor	atact
Street: contact_street	itact
City: contact_city Save change	es
State: contact	
Zip: contact_zip	
Phone: contact_phone	
Fax: contact_fax	
	+
	Þ

4. Select Lowered or whatever value you want from the Border drop-down list on the General page in the Properties view.

All the areas on the form used to display data values now have your selected border.

contact_maintenance * - Form		- • •
Layout		General Pointer Positio
Id:       contact_         Last Name:       contact_last_name         First Name:       contact_first_name         Job Role:       contact_title         Street:       contact_street         City:       contact_city         State:       contact_zip         Phone:       contact_phone         Fax:       contact_fax	Add a contact Delete a contact Save changes	General Pointer Position

## Move the buttons

Now you move the buttons to make room for the report you are about to add.

1. Select a button.

You can use lasso select or click one. Small black boxes in the corners mean it is selected.

2. Drag the button to the top of the form.

Select and drag the other two buttons until your form looks like this.

S Layout					۱
Id:	contact_				4
Last Name:	contact_last_name	Add a contact	Delete a contact	Save changes	-
First Name:	contact_first_name				
Job Role:	contact_title				
Street:	contact_street				
City:	contact_city				
State:	contact				
Zip:	contact_zip				
Phone:	contact_phone				
Fax:	contact_fax				
					-
•				Þ	

Now the buttons are near the top of the form. There is more room for the report you are about to add.

## Add a report

Now you add a report to provide information when you are working with the form. You can scroll in the report while you are filling out the form for a new contact. This means, for example, that you can look up an area code or zip code if it is already present for another contact.

1. Select Insert>Report from the menu bar.

Move the pointer into the workspace.

Your next click positions the report that you are adding to the form.

2. Move the pointer to the empty space on the right part of the form and click.

Four dots marking the corners of the box that will hold the report display on the form.

Contact_maintenance * - Form		- • •
<pre>contact_maintenance * - Form C Layout Id: contact_ Last Name: contact_last_name First Name: contact_first_name Job Role: contact_title Street: contact_street City: contact_city</pre>	Add a contact Delete a contact Save changes	General Other DataObject RichText Toolbar Activatio richtexttoolbaractivatior V Title none
State: contact Zip: contact_zip Phone: contact_phone Fax: contact_fax	Id: Last Name: First Name: Job Role:	TitleBar TitleBar HScrollBar ✓ UsveScroll HSplitScroll RightToLeft ✓ Border BorderStyle □ StyleBox! ▼ Transparency (%) 0

Now you use the Properties view to specify a few things about the report. First you are going to select the report whose contents display in the box.

3. Click the Browse button (the button with three dots on it) next to the DataObject field on the General page in the Properties view.

The Open dialog box displays. It lists the reports (DataWindows) in tutor\_im.pbl, the current library.

Open		×	J
DataWindows:			
attrib_birthdays		ОК	
attrib_birthdays attrib_crossout_and_visible		Cancel	
attrib_escapement_rotation attrib_font_height		Browse	
attrib_format		Help	
attrib_graybar_emp_total_comp attrib_italic			
attrib_rotate_emp_total_comp	Ŧ		
Comments:			
Sample: Demonstrates the color and under by highlighting birthdays of employees the current month.			
1.5			
Library:	nfoMal	ker 17 0\Tutor	
	пома		
٠ III	-	۱.	
		.1	1

4. Scroll the list of reports, select contactgrid, and click OK.

The contactgrid report displays in the form, and its name displays in the DataObject field in the Properties view.

😵 tutor_im.pbl - ODB [PB Demo DB V2017] - Appeon InfoMaker	
<u>File Edit View Insert Format Design Tools Window H</u> elp	wanghui@appeon.com 👻
[ C D 🔡 🐼 🛋 🗄 🖄 😭 🌖	<b>▶</b>
2	bot
	E 🗄 🕑 🗙
Save Cut Copy Paste Delete Undo Redo Button Properties	
Bring to FL. Send to Align L. Autosize FG Cir BG Cir Box	Tahoma • 10 • B I Bold halic
	····
Contact_maintenance * - Form	
Cayout	General Other
Id: contact	DataObject
Last Name: contact_last_name Add a contact	Delete a contact Save changes
First Name: contact_first_name	RichText Toolbar Activatio
Job Role: contact_title	richtexttoolbaractivatior 💌
Street: contact_street	Title
City: contact_city	▼ visible
State: contact	TitleBar
Zip: contact_zip	Id Last Name First Na
Phone: contact_phone	VScrollBar
	↓ LiveScroll
Fax: contact_fax	HSplitScroll
	RightToLeft
	BorderStyle
	□ StyleBox! ▼
	+ Transparency (%)
•	
Ready	Name: dw_1 1966,668 686x400

Next you specify that the report is to have the StyleBox border and scroll bars.

5. Make sure the BorderStyle selection is StyleBox.

Select the HScroll Bar, VScroll Bar and Border check boxes.

🚰 tutor_im.pbl - ODB [PB Demo DB V2017] - Appeon InfoMaker	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>I</u> nsert F <u>o</u> rmat <u>D</u> esign <u>T</u> ools <u>Wi</u> ndow <u>H</u> elp	wanghui@appeon.com 🔹
1 🗗 🖻 🔡 🗔 🛋 🖽 🛍 🔒 🕒	
New Open Preview Sel Lib Lib Lib Lib Lib Lib Lib Lib Library DB Prof Database Exit	
Save Cut Cony Parte Defete Undo Redo Button Properties Tab Order Data Run Close	
	B I
Bring to F., Send to., Align L Autosize FGCir BGCir Box	▼ 10 ▼ D I Bold Italic
Contact_maintenance * - Form	
□ ×	
Id: contact	outer
Last Name: contact_last_name Add a contact Delete a contact Save changes	DataObject
	contactgrid RichText Toolbar Activatio
First Name: contact_first_name	richtexttoolbaractivatior -
Job Role: contact_title	Title
Street: contact_street	none
City: contact_city	Visible
State: contact	TitleBar
Zip: contact_zip Id Last Name First A	▼HScrolBar
Phone: contact_phone	VScrollBar
Fax: contact fax	LiveScroll HSplitScroll
	RightToLeft
· · · · · · · · · · · · · · · · · · ·	▼ Border
	BorderStyle
	□ StyleBox! 👻
-	Transparency (%)
	0
Ready Name:	dw_1 1966,668 686x400

When you run the form, the report displays as a window with horizontal and vertical scroll bars. This gives you flexibility in looking at data while working on the form.

6. Resize the report to show more data.

To resize, move the pointer near an edge until the pointer becomes a double-pointed arrow. Then press the left mouse button, hold, and drag.

When you finish resizing, the report should look something like this.

ayout							General Other
Id: contact						_ <b>^</b>	DataObject
Last Name: contact_last_name	Add a cont	act	Delete a d	ontact	Save changes		contactgrid
First Name: contact_first_name							RichText Toolbar Activatio
Job Role: contact_title		ld	Last Name	First Name	Job Role	<b>^</b>	Title
Street: contact_street							none
City: contact_city							Visible
							TitleBar
State: contact						=	V HScrollBar
Zip: contact_zip							VScrollBar
Phone: contact_phone							✓ LiveScroll
Fax: contact_fax							HSplitScroll
							RightToLeft
							Border
						Ŧ	BorderStyle
		1			P.	_	□ StyleBox!
						_	Transparency (%)

# 3.6 Use the form to update the database

Where you are

Create the basic form

Preview (run) the form

Save the form

Add buttons to the form

Enhance the form

> <u>Use the form to update the database</u>

Now you use the form to add a new contact to the database.

1. Click the Run



Your finished form displays with data in place. The report on the form gives you a way to see all your contact data.

🕽 Maintain Contact Information						
Id: 1						_
Last Name: Hildebrand	Add a conta	ict	Delete a d	contact	Save changes	
First Name: Jane	[	ld	Last Name	First Name	Job Role	
Job Role: Marketing		10 1	Hildebrand	Jane	Marketing	
Street: 1280 Washington St.		2	Simmon	Larry	Sales	=
		3	Critch		Product developme	
City: Emeryville		4	Lambert	Terry	Administration	
State: MI		5	Sullivan	Dorothy	Customer support	
<b>Zip:</b> 94608		6	Paull	Rose	Finance	
-		7	Glassmann	Beth	Product developme	
Phone: (510) 555-1309		8	Powell	Gene	Training	
Fax: (510) 555-4209		9	Fish	Jeffrey	Marketing	
		10	Clarke	Molly	Sales	
		11	Kelley	William	Documentation	
		12	Lyman	Thomas	Customer support	-
		•			+	

2. Click the Add a contact button in the form.

An empty form displays. You use this form to enter a new contact.

Id: Last Name:	Add a co	ntact	Delete a	contact	Save changes	
					<b>_</b>	
First Name:		ld	Last Name	First Name	Job Role	*
Job Role:		1	Hildebrand	Jane	Marketing	
Street:		2	Simmon	Larry	Sales	Ξ
City:		3	Critch	Susan	Product developme	
-		4	Lambert	Terry	Administration	
State: MA		5	Sullivan	Dorothy	Customer support	
Zip:		6	Paul	Rose	Finance	
Phone: ( ) -		7	Glassmann		Product developme	
		8	Powell	Gene	Training	
Fax: ( ) -		9	Fish		Marketing	
		10	Clarke	Molly	Sales	
		11	Kelley	William	Documentation	
		12	Lyman	Thomas	Customer support	Ŧ
		٠.	111		•	

The cursor is in the Id box, but you do not know the next available number. You look in the report to see what number was used last.

3. In the report window, use the scroll bar to scroll down to the last row of the report and check the value in the Id column.

If the data has not been changed since installation, the value is 60, so the next available number is 61.

ld	Last Name	First Name	Job Role		*
51	Trayers	Ken	Sales	234	
52	Long	Peter	Training	78 (	
53	Tippet	Debbie	Customer support	85 /	
54	Hodson	Jack	Customer support	69 L	
55	Kosko	Kim	Product development	334	
56	McEvoy	Jim	Sales	23 F	
57	Goodall	Sandra	Sales	56 \$	
58	Elkins	John	Training	899	
59	Masalsky	Kurt	Customer support	29 (	
60	Collins	MaryBeth	Administration	56 L	Ξ
					Ŧ
٠ [				Þ	

4. Click the Id column and type 61.

Maintain Contact Information	
Id: 61	
Last Name:	Add a conta
First Name:	

5. Press Tab and type Carter for Last Name.

Press Tab and type Jimmy for First Name.

Press Tab.

At this point you are on the Job Role box. In this box you cannot type. You must select a job role from a list of possible ones.

In the Database painter, the column was defined to be associated with a DropDownListBox edit style. The extended attribute system tables store this and other information about data.

6. Click the down arrow on the drop-down list to display the choices.

Maintain Contact Information					
Id: 61					
Last Name: Carter					
First Name: Jimmy					
Job Role:					

7. Select Marketing.

🕕 Maintain Conta	ct Information
Id:	61
Last Name:	Carter
First Name:	Jimmy
Job Role:	Marketing 💌
Street:	Administration
City:	Documentation
State:	Finance Human resources
Zip:	Marketing
Phone:	Other & Product development -
Fax:	( ) -

- 8. Press Tab and type Peanut Way for Street.
- 9. Press Tab and type Atlanta for City.
- 10.Press Tab and type G to select GA for State (another drop-down list).
- 11.Press Tab.

To determine what to enter for Zip, scroll the report until you find another Atlanta entry.

Then click the Zip box in the form and type the zip code you see in the report.

Maintain Contact Information						, • 💌
<b>Id:</b> 61						
Last Name: Carter	Add a contac	ct Dele	ete a cont	act	Save cl	hanges
First Name: Jimmy	10	Street	City	State	Zip	P 🔺
Job Role: Marketing		t Main St.	Houston	TX	77079	(713)58
Street: Peanut Way	ar	irk Street	Burlington	MA	01803	(617)58
City: Atlanta		w Rd.	Needham	MA	02192	(617)58
		ckstone St.	Arlington	MA	02174	(617)58
State: GA		estborn Ter		MA	01803	(617)58
Zip: 30339		shington St.	Atlanta	GA	30339	(+04)58
Phone: ( ) -		nklin Pl.	Houston	TX	77079	(713)58
		Center St.	Arlington	MA	02174	(617)58
Fax: ( ) -		re Ave.	Bedford	MA	01730	(617)58
	-	orter St.	Burlington	MA	01803	(617)58
	de	len St.	Iselin	NJ	08830	(603)58
	n	ntral Ave.	Needham	MA	02192	(617)58 🛫
		•				•

12.Press Tab and type 4045557833 for Phone.

Notice that you type only the digits. The form formats the phone number. An Edit Mask edit style was defined for this column to handle the formatting. This edit style is stored in the extended attribute system tables.

13.Press Tab and type 4045554291 for Fax.

This is what your screen should look like now.

🕕 Maintain Contact Information					
<b>Id:</b> 61	<u>}</u>				
Last Name: Carter	Add a contact	Delete a cont	act	Save c	hanges
First Name: Jimmy	Stree	t City	State	e Zip	p 🔺
Job Role: Marketing	st Main		TX	77079	(713)58
Street: Peanut Way	ark Str	eet Burlington	MA	01803	(617)58
City: Atlanta	aw Rd	Needham	MA	02192	(617)58
	ckston	e St. Arlington	MA	02174	(617)58
State: GA	estbor	n Ter. Burlington	MA	01803	(617)58
Zip: 30339	shingto	on St. Atlanta	GA	30339	(404)58
•	anklin F	Pl. Houston	TX	77079	(713)58
Phone: (404) 555-7833	Center	St. Arlington	MA	02174	(617)58
Fax: (404) 555-4291	ire Ave	e. Bedford	MA	01730	(617)58
	orter S	t. Burlington	MA	01803	(617)58
	den St	Iselin	NJ	08830	(603)58
	ntral A	ve. Needham	MA	02192	(617)58 🖕
	•				•

14.Click the Save changes button in the form to update the database with the new contact.

The database is updated.

Note that the report always displays the information from the database when you start running the form. If you update the database, the report does not show the updates. To update the report, you return to the workspace and rerun the form.

15.Click the Close button in the PainterBar to return to the Form painter



D

16.Click the Run button again and scroll the report to the 61st row in the

report. Run

Notice that your report has been updated.

17.Click the Close button in the PainterBar to return to the Form painter

workspace. Close

18.Select File>Close from the menu bar.

**N**4

If you have not already saved the current version of the form, you are prompted to save changes.

19.Click Yes.

The Form painter closes.

# **4 LESSON 3: Report Tutorial**

Reports display and summarize data. You can view reports on the screen, save reports to a file, and print them on the printer.

In this tutorial you create a report using the data in the contact table. The report you create groups contacts by job role and lists phone and fax numbers for each contact.

This is what the report looks like when you have finished.

Prev	view - contacts_by_jobrole					8×
	2017/6/23		My Contacts			E
		Last Name	First Name	Phone	Fax	
	Administration					
		Brier	Michael	(617) 555-2398	(617) 555-3337	
		Collins	MaryBeth	(617) 555-1199	(617) 555-9586	
		Lambert	Terry	(617) 555-2246	(617) 555-3692	
		Romeo	John	(310) 555-4533	(310) 555-1233	
	Customer support					<b>T</b>
•		0.11	Del III	(404) 555 0000	(404) FEE 0111	E. ▲

# How long does this tutorial take?

About 45 minutes.

# 4.1 Create the basic report

Where you are

> Create the basic report

Preview the report

Save the report

Set up the design environment

Define sorting and grouping

Enhance the report

Save the report as a PDF file

#### Print the report

Now you create the basic report. To do this you select a report style and the data to be used for the report.

1. Click the New button in the PowerBar.

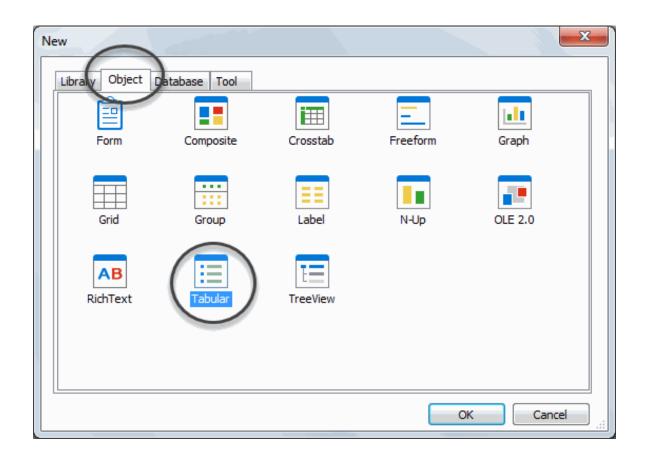
😵 tutor_im.pbl - ODB [PB Demo DB V2017] - Appeon InfoMaker								
File Tools V	Vindow	Help						
	₽	8	=	Ξ	01%	6	8	0
New Open	Preview	Sel Lib	Lib List	To-Do List	Library	DB Prof	Database	Exit

The New dialog box displays.

2. Select the Object tab if it is not already on top.

The Object tab page contains the icon for creating any type of new form and icons for the various report presentation styles.

3. Select the Tabular presentation style and click OK.



The wizard for creating tabular reports (also called DataWindows) starts up.

## About report presentation styles

A report presentation style is a predefined way of presenting information in a report.

4. Select the Quick Select data source.

Make sure the Retrieve on Preview check box is selected and click Next. Getting Started

Tabular Report Generator		? ×
enan	Which data source would you like to use?	
	Quick Select SQL Select Query	External
	Retrieve on Preview	
	< Back	Next > Cancel

#### About data sources

Quick Select is simply for choosing columns and specifying selection criteria and sorting, which is what you want for this tutorial.

SQL Select is for using other SQL options not available with Quick Select.

Query is for specifying the name of a query that describes the data source. You define a query in the Query painter.

External is for specifying data that comes from a source other than a database.

Stored Procedure is for specifying data using a stored procedure.

The Quick Select dialog box displays. In this dialog box you select the table to use and the columns you want to include in the report.

5. Click contact.

Quick Select		x
<ol> <li>Click on table(s) to select or deselect</li> <li>Select one or more columns.</li> <li>(Optional) Enter sorting and selection criteria below.</li> </ol>	To display comments for a table or column, click the right mouse button.	OK Cancel
Tables:	Columns:	Add All
ponus call track contact customer department employee exam_xref_info exam_xref_list examples		Help
Column: Sort:		
Criteria: Or:		

The columns for the contact table display. For this report you select five columns.

Quick Select		×
<ol> <li>Click on table(s) to select or deselect</li> <li>Select one or more columns.</li> <li>(Optional) Enter sorting and selection criteria below.</li> </ol>	To display comments for a table or column, click the right mouse button.	OK Cancel
Tables:	Columns:	Add All
<pre>contact </pre> < III → Comments: A list of contacts	id last_name first_name title street city state zip ◀ III	Help
Column: Sort: Criteria: Or:		•

6. Click last\_name, first\_name, and title.

Use the scroll bar to scroll the list of columns.

Click phone and fax.

InfoMaker moves the selected columns to the grid at the bottom. You can use this grid for reordering columns and for providing sort and selection criteria. For this report you do not need selection criteria, and you specify sorting later.

Quick Sele	ect			X
2. Select 3. (Optio	n table(s) to select or deselect one or more columns. nal) Enter sorting and ion criteria below.	To display comments for a table or column, click the right mouse button.		OK Cancel
Tables:		Columns:		Add All
Comment Fax Numb	•	first_name title street city state zip phone fax ◀ Ⅲ		Help
Column: Sort: Criteria: Or:	Last Name	First Name	1	Title
Or:				+

# 7. Click OK.

The Select Color and Border Settings dialog box displays. You are going to accept the defaults.

Select Color and Border Se	ettings		? X
	Select color and border options for your report:		
SP	Background Color:	Window Background	•
	Text		
	Color:	Window Text	-
5	Border:	NoBorder	-
2	Columns		
ww	Color:	Window Text	-
5/57	Border:	NoBorder	-
20		<u>S</u> ave	as default
		< Back Next >	Cancel

8. Click Next.

A dialog box summarizing all your specifications displays.

Ready to Create Tabular Report		
man	A Tabular Report with th generated.Click Finish v	んこ e following characteristics will be created or vhen you are ready.
C. C.	Property	Value
	Data Source Select	PBSELECT(TABLE(NAME="contact") COLUMN()
	Wrap Height (inches)	0
RIXOK	Background Color	Window Background
2010	Text Color	Window Text
5	Column Color	Window Text
5	Text Border	NoBorder
www.	Column Border	NoBorder
.5/15		
SIL		
2/1	•	4 III
Generate To-Do List		
		< Back Finish Cancel

9. Look over your specifications and then click Finish.

Your report displays in several views in the Report painter. It uses the columns and report style you selected.

Design - (untitled)					🕼 Properties - DataWindow 📃
			12 13 14		General Background Pointer
Last Name	First Name	Job Role	Phone	Fax 🗠 🔺	
Headert					Units
last_name	• first_name • • • • • • • • •	• • title• • • • • • • • • • • • • • • • • • •	·phone····	fax····	PowerBuilder (0)
Detail †					Timer Interval:
Summary†					0
Footer†					Hide Gray Line on page break
					Web DataWindow
				<b>T</b>	Show Backcolor On XP
•					
Preview - (untitled)				미지	
Preview - (untitled)					
Preview - (untitled) Last Name	First Name	Job Role	Phone	Fax	
	First Name Larry	Job Role Sales	Phone (713) 555-8960	^	
Last Name				Fax	
Last Name Simmon	Larry	Sales	(713) 555-8960	Fax (713) 555-92	
Last Name Simmon Critch	Larry Susan	Sales Product development	(713) 555-8960 (508) 555-4829	Fax (713) 555-92 (508) 555-30	
Last Name Simmon Critch Lambert	Larry Susan Terry	Sales Product development Administration	(713) 555-8960 (508) 555-4829 (617) 555-2246	Fax (713) 555-92 (508) 555-30 (617) 555-36	

The Design view is where you do much of your work perfecting the report. The text for the column headers comes from the extended attribute system tables. The names of the columns appear where the data values will be displayed.

Design - (untitled)	미뇌
	<u>I</u>
Last Name First Name Job Role Phone Fax	(† † 🔺
Header1	
last_name · · · · · · · · · · · · · · · · · · ·	• •
Detail 1	
Summary 1	
Footer1	_
12	
	-
	F.

#### The extended attribute system tables

The extended attribute system tables store information about data such as labels and display formats. When you create forms and reports, InfoMaker uses extended attribute information to create the basic form or report.

You put information into the extended attribute system tables using the Database painter. For example, in the Table tutorial you define the label Job Role: for the title column. Then when you use the title column in a form or report, InfoMaker uses the label Job Role:.

## **4.2 Preview the report**

Where you are

Create the basic report

> <u>Preview the report</u>

Save the report

Set up the design environment

Define sorting and grouping

Enhance the report

Save the report as a PDF file

Print the report

In this exercise you look at the Preview view of your report to see what it looks like when you print it.

1. Position the pointer in the upper-right corner of the Preview view (this drops the title bar) and click the maximize button.

Design - (untitled)					🕼 Properties - DataWindow
Last Name	4 5 6 7  First Name		Phone	15 16 16 Fax · · · · · · · · · · · · · · · · · · ·	General Background Pointer 4 Units PowerBuilder (0)
Detail 1	hist_hand	cicio	phone		Timer Interval:
Summary 1					
Footer†					Hide Gray Line on page break
					Web DataWindow
					Web DataWindow
					Show Backcolor On XP
				-	
•					
Preview - (untitled)				-	
	First Name	Job Role	Phone	Fax	
Preview - (untitled)	First Name Larry	Job Role Sales	Phone (713) 555-8960	Ū.	
Preview - (untitled)				Fax	
Preview - (untitled) Last Name Simmon	Larry	Sales	(713) 555-8960	Fax (713) 555-92	

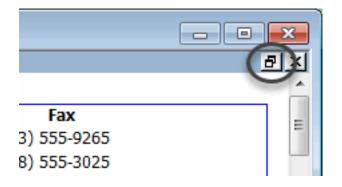
The Preview view becomes large and overlays all the other views. Notice that it includes the header information for the report and information from the database. InfoMaker retrieves information for all contacts and displays as many as fit in the Preview view.

iew - (untitled)					<u>t</u>
Last Name	First Name	Job Role	Phone	Fax	
Simmon	Larry	Sales	(713) 555-8960	(713) 555-9265	
Critch	Susan	Product development	(508) 555-4829	(508) 555-3025	
Lambert	Terry	Administration	(617) 555-2246	(617) 555-3692	
Sullivan	Dorothy	Customer support	(508) 555-3925	(508) 555-9931	
Paull	Rose	Finance	(617) 555-6392	(617) 555-1495	
Glassmann	Beth	Product development	(617) 555-0273	(617) 555-9933	
Powell	Gene	Training	(617) 555-3528	(617) 555-9563	
Fish	Jeffrey	Marketing	(617) 555-3528	(617) 555-9563	
Clarke	Molly	Sales	(617) 555-4325	(617) 555-7638	
Kelley	William	Documentation	(617) 555-8474	(617) 555-2594	
Lyman	Thomas	Customer support	(510) 555-5378	(510) 555-3372	
Davidson	Joann	Marketing	(510) 555-7363	(510) 555-9278	
Pettengill	Mark	Sales	(510) 555-3533	(510) 555-1146	
Moore	Dawn	Sales	(404) 555-4834	(404) 555-8291	
Lencki	John	Customer support	(617) 555-5348	(617) 555-4619	
Kaplan	Burt	Sales	(617) 555-3887	(617) 555-2398	

2. Use the scroll bar on the right side of the window to see more data.

Use the command File>Print Preview Rulers to turn the display of rulers on and off.

3. Click here in the upper-right corner to return the Preview view to its original size and location.



# 4.3 Save the report

Where you are

Create the basic report

Preview the report

> <u>Save the report</u>

Set up the design environment

Define sorting and grouping

Enhance the report

Save the report as a PDF file

Print the report

Now you save the report and give it a name.

1. Select File>Save from the menu bar.

The Save Report dialog box displays, with the pointer positioned for you to type a name for the report.

- 2. Type contacts\_by\_jobrole.
- 3. Click in the Comments box and type This report shows my contacts grouped by job role.

Save Report	
Reports:	
contacts_by_jobrole OK	
attrib_birthdays       Cancel         attrib_crossout_and_visible       Help         attrib_font_height       Help         attrib_format       attrib_graybar_emp_total_comp         attrib_italic       Italic	- -
attrib_rotate_emp_total_comp	
This report shows my contacts grouped by job role.	
Library:	
C:\Users\Public\Documents\Appeon\InfoMaker 17.0\Tutorial\	
• III •	
	знi

4. Press the Enter key.

InfoMaker saves your report. Anytime you have completed a unit of work and are satisfied, you should save your work.

## 4.4 Set up the design environment

Where you are

Create the basic report

Preview the report

Save the report

> <u>Set up the design environment</u>

Define sorting and grouping

Enhance the report

Save the report as a PDF file

Print the report

In this exercise you set up the design environment to make it easier to work. To do this, you:

- Show the edges of controls
- Display the grid and ruler

Control edges show how big the controls are. By displaying control edges, you can easily check for overlapping and make sure the spacing around controls is what you want. Displayed edges are a design aid only; they do not appear in the report.

The InfoMaker grid and ruler help you align controls.

## If you completed Lesson 2

The design options you set here may already be set correctly.

1. Select Design>Options from the menu bar.

The Report Options property sheet displays.

 Make sure the Show Grid option, Show Ruler option, and Show Edges option are selected. Make sure Snap to Grid is not selected.

Click OK.

Report Options	×
General Generation	Prefixes
Alignment Grid	-
Snap to Grid	<u>X</u> : 8
Show <u>G</u> rid	<u>Y</u> : 8
Show <u>R</u> uler	
Show <u>E</u> dges	
Retrieve on Preview	v
ОК Са	ncel Apply Help

The Design view shows a dotted grid and a ruler. Text and columns show edges.

Design - contacts_by_jobrole	<u>I</u> ×I
	15
Last Name First Name Job Role Phone	· *
Headert	
ast_name · · · · · · · · · · · · · · · · · · ·	32
Detail †	
Summary 1	
Footer1	_
	Ψ.
J • 🗌 •	•

## 4.5 Define sorting and grouping

Where you are

- Create the basic report
- Preview the report
- Save the report
- Set up the design environment
- > <u>Define sorting and grouping</u>

Enhance the report

Save the report as a PDF file

Print the report

Now you specify sorting and grouping. You want the report to group contacts by title. This means you need to sort by title and then specify grouping by title.

1. Select Rows>Sort from the menu bar.

The Specify Sort Columns dialog box displays.

Specify Sort Columns		23
1) Drag and Drop items. 2) Double-click column to edit Source Data last_name first_name title phone fax	Columns Ascendi	OK Cancel Help
•		

2. Move the pointer to the word title in the Source Data box and drag it to the Columns box.

(To drag, press and hold the left mouse button, move the mouse, then release the mouse button.)

Specify Sort Columns			×
<ol> <li>Drag and Drop items.</li> <li>Double-click column to edit</li> <li>Source Data</li> </ol>	Columns	Ascending	OK Cancel
last_name first_name title phone fax	title		Help

## Ascending and descending

Ascending and descending are options for sorting. Since you are alphabetizing in this tutorial, you want to sort in ascending (from A to Z) order. Ascending is the default, so you do not have to do anything.

You have specified the sorting required to group by title.

Next you specify sorting by last name and then by first name. This alphabetizes your contacts within each group.

3. Drag last\_name and first\_name to the Columns box.

Specify Sort Columns		×
1) Drag and Drop items. 2) Double-click column to edit Source Data last_name first_name title phone fax	Columns Ascending title last_name first_name	OK Cancel Help

4. Click OK.

The sorting definition is complete.

5. Select Rows>Create Group from the menu bar.

The Specify Group Columns dialog box displays. You are going to group on the title column. All contacts with the same title will be grouped together.

6. Drag title to the Columns box and click OK.

Specify Group Columns		×
1) Drag and Drop items. 2) Double-click column to edit Source Data last_name first_name title phone fax	Columns title	OK Cancel Help
•	•	

The grouping definition is completed. You have two new bands for the group in the report. You learn about bands in the next exercise.

Design - contacts_by_jobrole
Last Name · · · · · First Name · · · · Job Role · · · · Phone · · · · · A
Header
1: Header group title†
last_name·····phone·····first_name·····title·····phone·····phone·····fav
Detail †
1: Trailer group title†
Summary†
Footer1
· · · · · · · · · · · · · · · · · · ·

7. Look at the Preview view.

You see the report and its data. Notice that the data is sorted. You do not see the groups yet. In a few minutes you will make some changes so the groups appear.

Last Name	First Name	Job Role	Phone	Fax
Brier	Michael	Administration	(617) 555-2398	(617) 555-3337
Collins	MaryBeth	Administration	(617) 555-1199	(617) 555-9586
Lambert	Terry	Administration	(617) 555-2246	(617) 555-3692
Romeo	John	Administration	(310) 555-4533	(310) 555-1233
Cobb	Paul	Customer support	(404) 555-2239	(404) 555-8111
Cohen	Paul	Customer support	(617) 555-8883	(617) 555-4499
Goggin	Kevin	Customer support	(713) 555-3340	(713) 555-9211
Hayne	William	Customer support	(508) 555-7780	(508) 555-4422
Hodson	Jack	Customer support	(508) 555-2998	(508) 555-0022
Lencki	John	Customer support	(617) 555-5348	(617) 555-4619
Lyman	Thomas	Customer support	(510) 555-5378	(510) 555-3372
Masalsky	Kurt	Customer support	(404) 555-5111	(404) 555-8347
Reeves	Scott	Customer support	(603) 555-0988	(603) 555-5556
Short	Russell	Customer support	(617) 555-0993	(617) 555-1170
Sullivan	Dorothy	Customer support	(508) 555-3925	(508) 555-9931
Tippet	Debbie	Customer support	(706) 555-8227	(704) 555-8474

# 4.6 Enhance the report

Where you are

- Create the basic report
- Preview the report

Save the report

Set up the design environment

Define sorting and grouping

> Enhance the report

Save the report as a PDF file

Print the report

You can enhance reports in many ways. In this exercise you:

- Rearrange controls
- Add a title and date
- Add page numbers
- Add a count of the total number of contacts

#### **Rearrange controls**

To rearrange controls, you:

• Put the job role into the group header and change its display font

• Move the remaining columns to close the gap left by moving the column

This is what the Design view looks like when you have finished rearranging the controls.

	Design - contacts_by_jobrole	IJŇ
-	1         2         3         4         5         6         7         8         9         10         11         12         13           Last Name         First Name         Job Role         Pho	ne 🔺
I_	Header†	
	title	
	1: Header group title †	
	phone phone	
_	Detail†	
I_	1: Trailer group title†	
	Summary †	
	Footer†	
		-
		F.

## About report bands

The design version of the report that you see in the Design view divides the report into bands of information.

The header band contains heading information and is located at the top of each page.

The detail band contains the retrieved data.

The summary band contains summary information that applies to the entire report and is located at the end of the report.

The footer band contains information to be located at the bottom of every page, such as a page number.

For groups, the group header band and group trailer band contain information for the group.

1. Move the pointer to the gray bar entitled 1: Header group title until you see a doublepointed arrow

Ø	Design - contacts_by_jobrole	×
	Last Name First Name Job Role Phone	A 1
	Headert	
-		
<u> </u>	1: Header group title † 🗘	_
	last_name;	
	Detail †	-
_	1: Trailer group title†	_
	Summary †	_
	Footer†	_
		Ŧ
	× 🗌 🔸	

2. Drag the band down about 4 to 6 grid dots.

(To drag, press and hold the left mouse button, move the mouse, then release the mouse button.)

Design - contacts_by_jobrole	미지
E · · · · Last Name · · · · · · First Name · · · · Job Role · · · · · Pho	ne 🔺
Headert	
	<u></u>
1: Header group title †	_ /
last_name first_name title phone phone	
☐ Detail↑	
1: Trailer group title†	=
Summary 1	-
Footer	_
	_
	-
	- C

3. Move the pointer to the title column and drag it into the band for the group header. Put it near the bottom of the band as shown.

Design - contacts_by_jobrole	
1	12 13
Header†	
	: : : : : : : : : : [
title	
1: Header group title †	
last_name: first_name:	phone: : : :
Detail	<u></u>
1: Trailer group title†	
Summary†	
Footer†	
	<b>v</b>
	•

4. With the title column still selected, click B for bold and I for italic on the StyleBar.

	Design - contacts_by_jobrole
_	
	Last Name     First Name     Job Role     Phone
-	Header1
	<i>CKDe</i>
<u> </u>	1: Header group title†
	last_name phone phone
-	Detail †
	1: Trailer group title† Summary†
	Footer†

This makes the job role (title) stand out in the report.

5. Look at the Preview view.

You see the report and its data.

Last Name	First Name	Job Role	Phone	Fax
Administration				
Brier	Michael		(617) 555-2398	(617) 555-3337
Collins	MaryBeth		(617) 555-1199	(617) 555-9586
Lambert	Terry		(617) 555-2246	(617) 555-3692
Romeo	John		(310) 555-4533	(310) 555-1233
Customer support				
Cobb	Paul		(404) 555-2239	(404) 555-8111
Cohen	Paul		(617) 555-8883	(617) 555-4499
Goggin	Kevin		(713) 555-3340	(713) 555-9211
Hayne	William		(508) 555-7780	(508) 555-4422
Hodson	Jack		(508) 555-2998	(508) 555-0022

Notice that the value of the title column appears only once for each group. This is because the title column is now located in the group header band.

The Preview view is helpful for identifying problems. Notice that the header Job Role is still present even though there is no longer a column in the detail band. Next you delete the header.

6. Click the text Job Role in the header band.

	Design - contacts_by_jobrole	×
	<u>1</u>	لسب
	Last Name First Name Job Role Phone Fax	
_	Header1	
- 1		
1_	title	
	1: Header group title †	
-	last_name phone first_name fax	
	Detail †	.
	1: Trailer group title †	
	Summary †	
	Footer1	
		-
	4	

7. Press the Delete key.

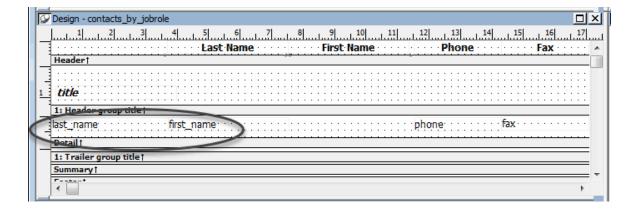
	Design - contacts_by_jobrole
17	Last Name     First Name     Fax
	Header1
1	title
	1: Header group title †
	last_name:first_name:
<u> </u> _	Detail †
	1: Trailer group title †
	Summary 1
	Footer1
	· · · · · · · · · · · · · · · · · · ·

8. Drag the First Name and Last Name text boxes in the header band to the right to fill the empty space.

	De	esi	gn	-	c	or	nt	a	ct	s	ł	2)	<u>_</u>	jo	b	r	ol	e																																																																									Е	]	>
	١	ىلى	1	ļ				1	1			L		3			1		4	I.		.1		1	5			J,			5	l			L		i	1			1			8	L			L			9	L			L	1(	p		Т		11	l			L	1	2	L		.1		1	3			L	1	4			Ŀ	1	I.		Ŀ	.1	6	I.		Т	1	7	
1		0			L	a	sl	t	N	a	ņ	Ņ	ł	•	•				ł	•	·	•	•		F	i	ŗ	sl	t	N	ķ	a	n	1	e			•	•			9	)		Ċ					•	:			•		•	:			•	:						•	•	•	P	ł	10	DI	n	e	•	·	÷	·	ŀ	•	•	÷	•	Į	a	×	÷	•	•	÷	÷	
		-	-	-	ŧ	_	_	_	-	-	-	-	-	-	_		_	_	-	-	-	-	_		_	-	-		_	-	-		_		_		-	-	-	_	-				-	_	-	_	_	-	-	_	_	-	-	-	-	_	_	-	-	_			_	-	-	-	_	_		-	-	-				_		-	-	-	-	-			-	-	-	-	_		IF.
1-	ш	ea	ae	1	-	-		-					_	_	_	_	_	_				_	_	_	_	_								-	2	-	-	-	-						_	_	_	_	_			_		_			_	_	 _	_			_	_	_		_	_	_	_	_		_	-	_	_	_	_	_			_	_	_	5	2	_	_	-	_	-	-	•
1-		ea																																																																																											•
		ea :																													•																								•									,																													
-	1:								•	•	•	•	•	•	•				•												•																								•									,																													

	Design - contacts_by_jobrole	미×
_		
	Last Name First Name Phone Fax	<u></u>
-		

9. Drag the first\_name and last\_name columns in the detail band to the right to fill the empty space.



Ø	Design - contacts_by_jobrole
	3 4 5 5 6 17 18 19 20
	Last Name First Name Phone Fax
	Headert
1.3	
1	1: Header group and f
	last_name first_name phone fax
	Detail†
	1: Trailer group title †
	Summary t
	<b>F</b> *

You make one final visual improvement now by left-aligning the text in the column headers.

10.Choose Edit>Select>Select Text from the menu bar.

This selects all the headers. It might be difficult to see that they are selected because the band is so narrow.

11.Click the left justification button on the StyleBar.

If your headers are not already bold, click the Bold button.

All the headers become left justified (and bold).

ß	Design - contacts_by_jobrole
2_	4
	Last Name First Name Phone Phone First Name
	Headert
1_	title
	1: Header group title†
	last_name first_name phone fax
	Detail
	1: Trailer group title †
-	▲ □

12.Look at the Preview view.

ew - contacts_by_jobrole				1
	Last Name	First Name	Phone	Fax
Administration				
	Brier	Michael	(617) 555-2398	(617) 555-3337
	Collins	MaryBeth	(617) 555-1199	(617) 555-9586
	Lambert	Terry	(617) 555-2246	(617) 555-3692
	Romeo	John	(310) 555-4533	(310) 555-1233
Customer support				
	Cobb	Paul	(404) 555-2239	(404) 555-8111
	Cohen	Paul	(617) 555-8883	(617) 555-4499
	Goggin	Kevin	(713) 555-3340	(713) 555-9211
	Hayne	William	(508) 555-7780	(508) 555-4422
	Hodson	Jack	(508) 555-2998	(508) 555-0022

## Add a title and date

Now you add a title and date to the header band. They will be at the top of each page.

1. Move the pointer to the gray bar marked Header and drag it down about 10 grid dots.

Design - contacts_by_jobrole
1       2       3       4       5       6       7       8       9       10       11       12       13       14       15         Last Name       First Name       Phone       F       ▲
Header1
1 title 1: Header group title †
1: Trailer group title† Summary†
Footer1

2. Choose Edit>Select>Select Text from the menu bar (or use lasso selection).

This selects all the headers.

3. Drag all the headers down close to the gray band.

This leaves room for the title.

ø	Design - contacts_by_jobrole
1	
	2
2	
	Last Name First Name Phone Fax
-	Header1 Last Name First Name Phone Fax
-	
-	
1	title
·	1: Header group title †
	last_name first_name phone fax
_	Detail
	1: Trailer group title 1
	Summary1
	Footer1

- 4. Click the Text button in the Objects drop-down toolbar in the PainterBar (or select Insert>Control>Text from the menu bar).
- 5. Move the point of the pointer above the First Name box and down one grid dot from the top of the page.
- 6. Click the left mouse button.



This positions the text box for the title.

	Design - contacts_by_jobrole
1	text
-	Last Name First Name Phone Fax
1	title
	1: Header group title †
	last_name first_name phone fax
i I	Detail
	1: Trailer group title †
	Summary1
	Footer1
	▼   

7. Type My Contacts.

Select 14 from the Size drop-down list on the Font tab in the Properties view to make the title bigger (enlarge the text box if necessary).

📃 conta	cts_by_jo	brole *	- Report					٢
		HTML	Position	Tooltip	Background	Fon	t 🔳	×
Faceivam								*
Taho	ma					•		
Size								
14						-	Z	
8								
9							N	
10 11							2	
12								
14							Z	=
16								
18 20							Z	
22								
24							Z	
26 28								
36								
48								
72 variable								
	!					- ×,		
Sample								
AaBl	bYyZz	z123	3					
Family	-							Ŧ

The title is now enlarged.

ß	Design - contacts_by_jobrole
	My Contacts
2	Last Name First Name Phone Fax
	title
	1: Header group title1
-	last_name     first_name     phone     fax       Detail t
-	1: Trailer group title† Summary†
	Footer1

8. Select Insert>Control>Today() from the menu bar.

Move the point of the pointer to the upper-left corner.

Click.

This places a computed field in the report. The computed field is for today's date.

Ø	Design - contacts_by_jobrole
 1  2	today()
-	Header 1 Header 1
1	title
	1: Header group title †
	Detail 1     phone     fax:
-	1: Trailer group title†
	Summary †
	Footer1

9. Look at the Preview view.

Your report now has a title and today's date.

2017/6/23		My Contacts		2	
	Last Name	First Name	Phone	Fax	
Administration					
	Brier	Michael	(617) 555-2398	(617) 555-3337	
	Collins	MaryBeth	(617) 555-1199	(617) 555-9586	
	Lambert	Terry	(617) 555-2246	(617) 555-3692	
	Romeo	John	(310) 555-4533	(310) 555-1233	
Customer support					
			(404) 555 0000	(404) FEE 0111	

## Add page numbers

Now you put page numbers in the footer band.

1. Move the pointer to the gray bar marked Footer and drag it down about 4 grid dots.

If necessary, use the scroll bar to make room at the bottom of the Design view.

Dragging down the footer bar makes space for the page number in the footer band. The page number is another computed field.

	Design - contacts_by_jobrole
P	
-	
	today() My Contacts
1	
2	
	Last Name First Name Phone Fax
	Header1
1	
1	title
1-	1: Header group title †
- 1	
- 1	Detail
	1: Trailer group title 1
	Summary1
1	
1-	Footer1 v
	•

2. Select Insert>Control>Page n of n from the menu bar.

In the footer band, move the pointer to the center and down 2 grid dots.

Click.

Select a different font size (10) in the Properties view, Font page.

This places a computed field for page numbers.

Design - contacts_by_jobrole
today() My Contacts
2
Last Name First Name Phone Fax
Headert
[] · · · · · · · · · · · · · · · · · · ·
1 <i>title</i>
1: Header group title†
ast name first name phone phone
Detail 1
1: Trailer group title†
Summary t
'Page ' + page() + ' of ' + pageCount()
Footer†

3. Look at the Preview view.

Click the scroll bar until you move to the bottom of the page.

You now have a page number on your report.

Marketing				
	Carter	Jimmy	(404) 555-7833	(404) 555-4291
	Davidson	Joann	(510) 555-7363	(510) 555-9278
	Fish	Jeffrey	(617) 555-3528	(617) 555-9563
	Galvin	Liz	(617) 555-9312	(617) 555-9870
	Hildebrand	Jane	(510) 555-1309	(510) 555-4209
	Shishov	Irina	(404) 555-1233	(404) 555-6837
	Weaver	Joe	(713) 555-1956	(713) 555-4455

## Add a count of the total number of contacts

Now you add a count of the total number of contacts you have to the end of the report. You put the information in the Summary band, which means it prints at the end of the report.

Like the date and page number, the count is a computed field, only this time, you create it yourself.

## How to use lasso selection

Position the pointer, press and hold the left mouse button, and drag the lasso around everything you want to select. Then release the mouse button.

<i>count( la contacts in all</i> Page '+ page() + 'of '+ pageCount()												
	· · · •		•••••••••••••••••••••••••••••••••••••••									
		countí la	contacts in all									
Page ' + page() + ' of ' + pageCount()												

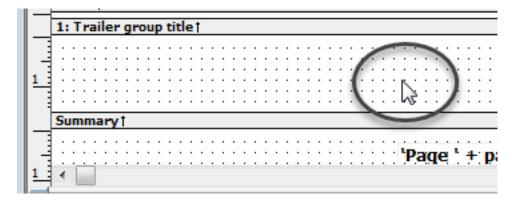
1. Move the pointer to the gray strip marked Summary for the summary band and drag it down about 6 grid dots.

This makes space for the total number of contacts, which is a computed field.

Design - contacts_by_jobrole				미의
4			15 16 17	18
today()	My Contacts			· · · · · · · · · · · · · · · · · · ·
	Hy conducts			
				💷
2				
	First Massa	<b>D</b> haara	<b>F</b>	
Lasc Name	HISC Name	Phone	Fax	<u></u>
Headert				
<u>_</u>				
1 title				
1: Header group title				
ast_name	first_name	phone:	fax	
Detail				
1: Trailer group title †				
4				
Summary 1				
4 · · · · · · · · · · · · · · · · · · ·	Page ' + page() + ' of ' +	pageCount()		<del>-</del>
<b>11</b> < <b>□</b>				4

2. Select Insert>Control>Computed Field from the menu bar.

In the summary band, move the point of the pointer to the center and down 4 grid dots. Click.



This sets the position for a computed field that you use for the total number of contacts. The Modify Expression dialog box displays.

3. In the Functions box, click count(#x for all).

Your dialog box should look like this. The placeholder for what to count is highlighted.

Modify Expression		×
Expression:		ОК
count( #x for all )	Cancel	
		Verify
	-	Help
Functions:	Columns:	
+ - ceiling(x) char(x)	last_name first_name	
<pre> charA(x)  cos(x)  count(#x for all)  crosstabavg(1)</pre>	title phone fax date_1	
() crosstabavgdec(1) crosstabavgdec(1) crosstabcount(1)	page_1	

4. In the Columns box, click last\_name.

This selects the last\_name column to apply the count function to. You are going to count all the last names to find out how many contacts you have in the report.

Modify Expre	ession			×
Expression:				ОК
count( last	t_name (for all )		A	Cancel
				Verify
			-	Help
	Functions:		Columns:	
+ -	ceiling(x)	*	last_name	
	char(x) charA(x)		first_name title	
	cos(x)		phone	
	count( #x for all ) crosstabavg( 1 )		fax date_1	
	crosstabavg(1)		page_1	
	crosstabcount(1)	Ŧ		

5. Click Verify.

You should get the message box stating that your expression is valid.



6. Click OK to close the message box.

Click OK to complete the definition of the expression for the computed field. The computed field is in place.

count( la Page ' + page() + ' of ' + pageCount()				
<u>count( la</u> Page ' + page() + ' of ' + pageCount()	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · ·	· · · · · · · · · · · · ·	· · · · · · · · · · · · · ·
Page '+ page() + ' of ' + pageCount()	count( le	<u></u>		

7. Select Insert>Control>Text from the menu bar.

Position the pointer to the right of the computed field and click.

Type contacts in all.

Drag the text box to line it up with the computed field.

						Ċ		:	:	:	:	1		:		ċ	0	n	t	a	cl	s		in		al	l			:	
:	:	:	:	:	ÿ	2	ġ	J	2		4	-	p	a	g	e	C	):	4			o	f		4	-	P	a	g	ę	Ç

8. Select the computed field and the text using lasso selection.

On the Font page of the Properties view (or on the StyleBar), select 10 for a font size and click I for italic and B for bold.

9. Look at the Preview view.

Use the scroll bar until you see the end of your report.

The summary band of your report now shows the total number of contacts in the report. The number you see may not be 61. The number depends on the contacts currently in your database.

Preview - contacts_by_jobrole	Miller Powell	Henry Gene		(617) 555-1332 (617) 555-9563	
		61	contacts in all		
			Page 2 of 2		=
•		III			-

## 4.7 Save the report as a PDF file

Where you are

Create the basic report

Preview the report

Save the report

Set up the design environment

Define sorting and grouping

Enhance the report

> <u>Save the report as a PDF file</u>

#### Print the report

You can save the data in a report in many different formats, including XML, HTML, Microsoft Excel, and PDF.

### Saving as PDF

Before you can save the data in a report object to a PDF file, you must install GNU Ghostscript on your computer. For information about using the GNU Ghostscript distiller, see the User's Guide.

Now you save the report as an XML file.

1. Select the Preview view by clicking it.

This ensures that the Preview view is the current view.

2. Select File>Save Rows As from the menu bar.

Select XML from the Save as Type drop-down list.

itor_im.pbl - ODE	CSV with headers Dbase 2	*	- [contacts_by_jobro
<u>F</u> ile <u>E</u> dit <u>V</u> ie	Dbase 3 DIF Enhanced Metafile		ols <u>W</u> indow <u>H</u> elp
+ 🗆 🗆	Excel Excel with headers Excel5		Database Exit
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Save As	PDF		×
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File name:	Excel12(*.xlsx) with headers Excel12(*.xlsb) Excel12(*.xlsb) with headers		Save
Save as type:	Text with headers	•	Cancel
Encoding:	Unicode LE	•	Help

3. Type a name for the file and click Save.

# 4.8 Print the report

Where you are

- Create the basic report
- Preview the report

Save the report

Set up the design environment

Define sorting and grouping

Enhance the report

Save the report as a PDF file

## > <u>Print the report</u>

1. Select the Preview view by clicking it.

This ensures that the Preview view is the current view.

2. Select File>Print Report from the menu bar.

The Windows Print dialog box displays.

Print	×
Printer: Adobe PDF	
Copies: 1	ОК
Page Range	Cancel
All	Printer
Current Page	Help
Pages:	Пер
Enter page numbers and/or page ranges separated by commas. For example, 2,5,8-10	Print to File
	Collate Copies
Print: All Pages in Range	

- 3. Click OK.
- 4. Select File>Close from the menu bar.

If you are prompted to save changes, click Yes.

The Report painter closes.

# **5 LESSON 4: Table Tutorial**

## This tutorial requires the Database painter

The Database painter component of InfoMaker is optional; you must have installed it to do this tutorial.

Tables are the way relational databases organize information. To take full advantage of InfoMaker's ability to create forms and reports, you should learn how to create and work with database tables.

InfoMaker is installed with an SQL Anywhere database. You can create and work with tables in the SQL Anywhere database and in any other database you have access to.

After you create a table, you can display its columns on a form and use the form to add information into the database. For a final printed copy of the data in your tables, you can create and print reports.

In this tutorial you:

- Create a database table
- Define extended attribute information
- Add data to the table

When you are finished, you can create forms to view and update information, and you can create and print reports using information in the table.

#### How long does this tutorial take?

About 45 minutes.

## 5.1 Create the database table

Where you are

> <u>Create the database table</u>

Define extended attribute information

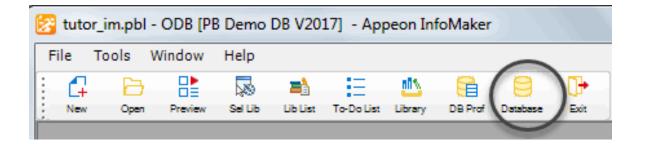
Add data to the table

To create the database table, you:

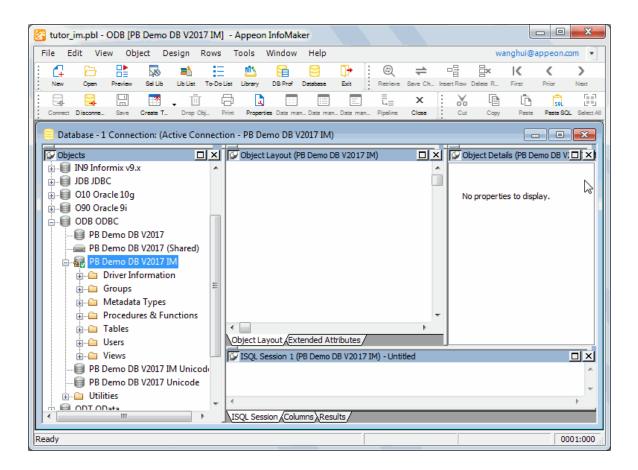
- Define the columns in the table
- Define a primary key
- Enter comments to document the table
- Save the table

## Define the columns in the table

1. Click the Database button in the PowerBar.



The Database painter workspace displays. It contains many views for working with database information. If your workspace does not look like this, you may want to select View>Layouts>(Default).



2. Position the pointer on the Tables folder in the PB Demo DB V2017 IM database and select New Table from the pop-up menu.

File Edit View Obj	B Demo DB V2017 IM] ject Design Rows	Tools Window Help	wanghui@appeon.com									
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Database - 1 Connection: (Active Connection - PB Demo DB V2017 IM)												
Objects		父 Object Layout (PB Demo DB V2017 IM)	□ × Ø Object Details (PB Demo DB V:□:×									
ianie IN9 Informix v9.3 ianie IDB JDBC	x ^		<u>^</u>									
			No properties to display.									
010 Oracle 10g			No properties to display.									
PB Demo DB	V2017											
- 🚔 PB Demo DB	V2017 (Shared)											
😑 🏭 PB Demo DB												
🖶 🗀 Driver Inf	formation											
i ⊡ Groups	=											
🕀 💼 Metadata												
⊕…	es & Functions											
⊕ <u>⊡</u> Us(	New Table	Layout Extended Attributes										
te ⊡	Show System Tables	L Session 1 (PB Demo DB V2017 IM) - Uni	titled 🗆 🖂									
	Table Security		A									
PB Der												
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<b>ම</b> PB Der ⊕ <b>白</b> Utilitie	Refresh	_	- F									
🗑 PB Der	Refresh Properties	ession (Columns) Results /	b T									

The view in which you define the columns in the table displays. The cursor is in the Column Name box for the first column.

😰 tutor_im.pbl - ODB [PB Demo DB V2017 IM] - Appeon InfoMaker
File         Edit         View         Object         Design         Rows         Tools         Window         Help         wanghui@appeon.com         •
[][[]] [] [] [] [] [] [] [] [] [] [] []
New Open Preview Sel Lib Lib Lib Lib Lib Lib Lib Lib To-Do List Library DB Prof Database Exit
Connect Disconne Save Create T Drop Obj Print Properties Data man Data man Data man Pipeline Close : Cut Copy Paste SQL Select All
Database - 1 Connection: (Active Connection - PB Demo DB V2017 IM)
Objects 🛛 🗙 Object Layout (PB Demo DB V2017 IM) 🗖 🗙 Object Details (PB Demo DB V: 🗋 🗙
IN9 Informix v9.x
I I I I I I I I I I I I I I I I I I I
tin - € 010 Oracle 10g No properties to display.
B O90 Oracle 9i
PB Demo DB V2017
PB Demo DB V2017 (Shared)
□ - 🔐 PB Demo DB V2017 IM
Driver Information
🗓 🛅 Groups 🗧
😥 🗀 Metadata Types
🔒 🗀 Procedures & Functions 💿
Tables
Users Object Layout Extended Attributes
🗄 🗁 Views 🖉 Columns (PB Demo DB V2017 IM) - Untitled 🔲 🗙
PB Demo DB V2017 IM Unicode Column Name Data Type Width Dec Null Default
PB Demo DB V2017 Unicode
ISQL Session Columns Results
Ready 0001:000

3. Type id and press Tab.

The cursor moves to the Data Type box. The default datatype (char) is highlighted. The datatype for the id column needs to be integer.

## About default datatypes

Char is the default datatype for the first column. The default datatype for subsequent columns is the type of the previous column.

4. Click the arrow to the right of the word char and select integer from the drop-down list of available datatypes.

This changes the datatype.

5. Press Tab three times.

This moves you past the setting of No for the column labeled Null. No means you do not want to allow the column you are defining to be empty (to have a null value). Since you always want a value for id, you leave the value No. You also move past the column labeled Default. You are not going to specify a default.

	Columns (PB Demo DB V2017 IM) - Untitled											
	Column Name	Data Type		Width	Dec	Null		Default				
	id	integer	Ŧ			No	•	(None)	-			
	▼ (None) ▼											
\IS	ISQL Session Columns Results											

6. Type last\_name and press Tab.

The cursor moves to the Type column. The most recently used datatype (integer) is highlighted. The last\_name column should be type char, so you change the datatype.

7. Type c and press Tab.

Typing c is a shortcut for choosing char quickly. The cursor moves to the Width column.

8. Type 15.

This allows 15 characters for the last name instead of 10.

9. Press Tab three times.

This moves you past the setting of No for the column labeled Null to the Name box for the next column. No is what you want (name cannot be empty). You move past the column labeled Default again.

Ø	Columns (PB Demo DB V2017 IM) - Untitled								
	Column Name	Data Type		Width	Dec	Null		Default	
	id	integer	Ŧ			No	Ŧ	(None)	-
	last_name	char	Ŧ	15		No	Ŧ	(None)	•
			Ŧ				T	(None)	-
ISQL Session Columns Results									

10.Finish entering information about the table columns.

The following table shows all the values needed to define the columns in the contact table. You have already entered values for the first two columns (id and last\_name).

Name	Туре	Width	Dec	Null	Default
id	integer			No	(None)
last_name	char	15		No	(None)
first_name	char	15		No	(None)
title	char	2		No	(None)
street	char	30		No	(None)

Table 5.1:

Name	Туре	Width	Dec	Null	Default
city	char	20		No	(None)
state	char	2		No	(None)
zip	char	5		No	(None)
phone	char	10		Yes	(None)
fax	char	10		Yes	(None)

When you have finished, the Columns view should look like this.

Column Name	Data Type		Width Sec	Null	_	Default	
id	integer	•		No	•	(None)	-
last_name	char	-	15	No	•	(None)	-
first_name	char	-	15	No	•	(None)	-
title	char	-	2	No	•	(None)	-
street	char	-	30	No	•	(None)	-
city	char	-	20	No	•	(None)	-
state	char	-	2	No	-	(None)	-
zip	char	-	5	No	•	(None)	-
phone	char	-	10	No	-	(None)	-
fax	char	-	10	No	-	(None)	-
[					_		_

## Save the table

You have now entered all of the column information needed. Now you finish creating the table.

1. Select File>Save from the menu bar.

The Create New Table dialog box displays.

You leave the owner as dba (database administrator) and enter a name for the table.

2. Type contact1 in the Table Name box.

Click OK.

Create New Tal	ble		x
Owner Name:	dba	I	
Table Name:	contact1		
	ОК	Cancel	

InfoMaker passes the SQL needed to create the table to the SQL Anywhere DBMS, which creates the table.

InfoMaker displays a representation of the table in the Database painter Object Layout view.



The list of columns displays. The scroll bar on the right side means that there are more columns than can be displayed at once. To see the other columns, you can click the down arrow at the bottom of the scroll bar.

## Define a primary key

A primary key uniquely identifies each row. In your contact table, id is the unique identifier of each row of data.

1. Select Object>Insert>Primary Key from the menu bar. (If the menu item is grayed out, click the Object Layout view to make it current and then select the menu item from the menu bar.)

The Primary Key property sheet displays in the Object Details view. Here you can pick one or more columns as the primary key.

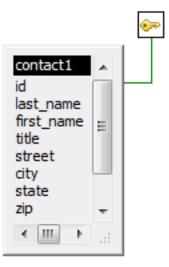
Prima Key (PB Demo DB V20 🗖	×
General	
Table: contact1	Â
Columns: id last_name first_name title	ш
Order:	
	Ŧ

2. Click id in the list of columns.

Gener	×
Table: contact1 Columns: Iast_name first_name title	•
Order:	-

3. Select File>Save from the menu bar.

This defines id as the primary key for your table. Notice that the representation of the table now includes a symbol for the primary key of the table.



Next you define a comment for the table.

#### Enter comments to document the table

Although not required, comments can be helpful in identifying tables.

1. Position the pointer on the title bar of the representation of the contact1 table, display the pop-up menu, and select Properties.

The Table Properties property sheet displays in the Object Details view.

2. Click in the Comments box and type This is the sample table for the tutorial created by [your name].

😰 Table (	PB Demo DB	V2017 IM) - cor	ntact1 🔲 🗙
General	Data Font	Heading Font	Label Font
Owner:			
dba			
Table:			
contact1	L		
Comment	s:		
	ne sample ta by Appeon	ble for the tutor	ial 🔺
			~

This associates the comments with the table you are creating.

#### 3. Select File>Save from the menu bar.

# 5.2 Define extended attribute information

Where you are

Create the database table

> Define extended attribute information

Add data to the table

Now you extend the basic definitions of the columns in the table.

The following table summarizes how you extend the column definitions of the contact1 table columns.

Column name	What you do to extend its definition
id	Nothing.
last_name	
first_name	
title	Define a DropDownListBox edit style of job roles, change the column header and label to Job Role, and enlarge the display width of the column to 1.5 inches (3.81 cm).
street	Nothing.
city	
state	Assign the DropDownDataWindow edit style for state to the state column. Set the default value of state to MA.
zip	Nothing.
phone	Define an Edit Mask edit style for a phone
fax	number and apply it to phone and fax.

#### Table 5.2:

#### About extended attribute information

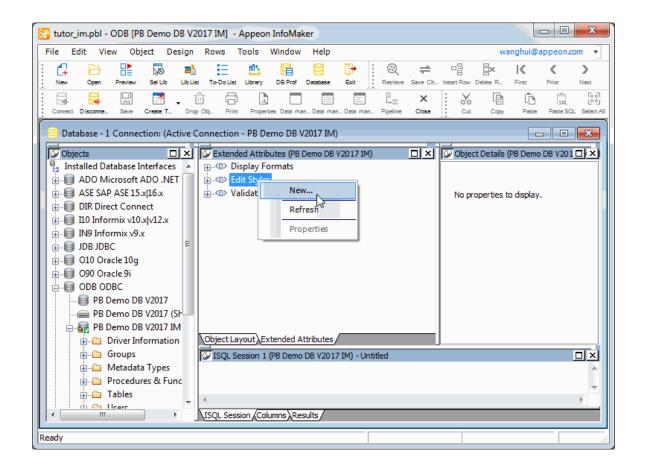
InfoMaker stores extended attribute information in the extended attribute system tables and uses it to display and validate data in forms and reports. In the Report painter or Form painter, you can override whatever you specified in the Database painter, which is where you are now.

#### Define a DropDownListBox edit style for the title column

Now you define a DropDownListBox edit style that has the valid job roles for the title column. When you have finished, this is what it looks like in a form.

Marketing 🗨
Administration
Customer support
Documentation
Finance
Human resources
Marketing
Other
Product developmer

- 1. Select View>Layouts>(Default) from the menu bar.
- 2. Click the Extended Attributes tab to bring the view to the front.
- 3. In the Extended Attributes view, display the pop-up menu for Edit Styles and select New.



The Edit Style dialog box displays.

💭 Edit Style (PB Demo DB V2017 IM) - Untitled 📃 📃	l ×
General	
Edit Style	
Style Type	
Edit	
Format	
Case	
▼	
Limit	
0	Ξ
Accelerator	
Auto Selection	
Display Only	
Show Focus Rectangle	
Empty String is NULL	
Password	
Required	
Auto Horizontal Scroll	
Auto Vertical Scroll	
Horizontal Scroll Bar	
Vertical Scroll Bar	Ψ.

4. Enter the name JobRoles1.

Select DropDownListBox in the Style box next to Edit Style.

Check Sorted to alphabetize your entries.

Check Vertical Scroll Bar to display a vertical scroll bar on your list.

Edit Style (PB Demo DB V2017 IM) -	JobRoles1	
General		
Edit Style		
JobRoles1		
Style Type		
DropDownListBox		-
Accelerator		
Case		
		-
Allow Editing		
Auto Horizontal Scroll		=
Sorted		
Empty String is NULL		
🔲 Required		
Always Show List		
Always Show Arrow		
Vertical Scroll Bar		
Limit		
0		÷
Code Table		
Display Value	Data Value	
1		_
	·	

5. Enter the Display Values and Data Values shown in the table below.

Be sure to use lowercase for the data values.

To enter each pair of values, type the values and press the Tab button.

For the last pair of values, do not click Tab.

Display Value	Data Value
Sales	sa
Customer support	cs
Product development	pd
Administration	ad

Display Value	Data Value
Training	tr
Documentation	do
Marketing	ma
Human resources	hr
Finance	fi
Other	ot

When you finish entering values, the Edit Style dialog box looks like this.

КI	Edit Style (PB Demo DB V2017 IM) - Job	bRoles1	
맅	General		
G	JODKOIESI		
6	Style Type		
6	DropDownListBox		
E	Accelerator		
6			
E	Case		
•	Allow Editing	13	
E	Auto Horizontal Scroll		
	✓ Sorted		
	Empty String is NULL		
	Required		
	Always Show List		=
	Always Show Arrow		
	Vertical Scroll Bar		
	Limit		
	0		÷
	Code Table		
	Display Value	Data Value	<b>^</b>
	7 Marketing	ma	
	8 Human resources	hr	
6	9 Finance	fi	
	10 Other	ot	
	VISQL Session 1 (PB Demo DB V2017 IM)	Lintified	
1 3 6		- ondeo	비스
	ISQL Session Columns Results		

#### About display values and data values

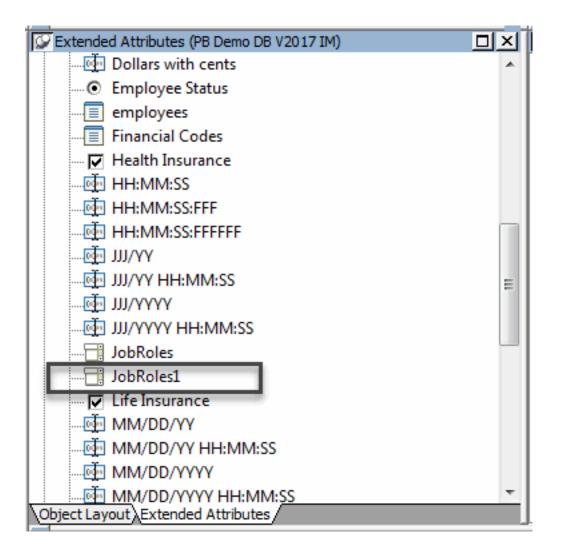
Display values show in forms and reports. Data values are stored in the database. Display values should be meaningful -- such as Human Resources. In contrast, data values are often codes that are short -- such as hr. Short codes conserve space in the database.

6. Click OK to accept the definition of the DropDownListBox Edit Style named JobRoles1.

InfoMaker adds the JobRoles1 edit style to the extended attribute system tables in the database and lists it as one of the available edit styles in the Extended Attributes view.

7. Expand the tree view of Edit Styles by clicking the plus (+) sign.

Use the scroll bar to scroll down to the JobRoles1 Edit Style.

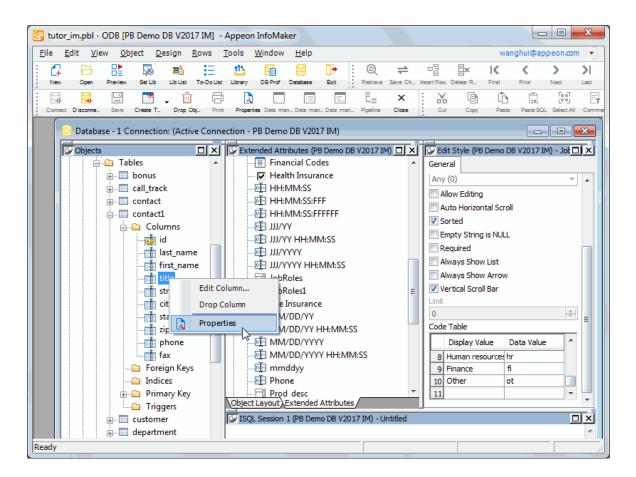


Now that JobRoles1 is defined in the extended attribute system tables, you can use it for any appropriate column in any table in the database. You are going to assign it to the title column in the contact1 table.

8. Expand PB Demo DB V2017 IM in the Objects view to display Tables and then the Columns in the contact1 table.

Display the pop-up menu for the title column and select Properties.

The Object Details view now includes the property sheets for the title column.



9. If the Edit Style tab is not visible, use the arrows in the upper-right corner of the Object Details view to display the Edit Style tab.

Click the Edit Style tab to bring it to the front.

Itutor_im.pbl - ODB [PB Demo DB V2017 IM] - Appeon InfoMaker         File       Edit       View       Object       Design       Rows       Tools       Window       Help       wanghui@appeon.com	×
[[] [] [] [] [] [] [] [] [] [] [] [] []	) Last
Database - 1 Connection: (Active Connection - PB Demo DB V2017 IM) Tables Tables Finance General Any (0) Call_track Contact HH:MM:SS Contact HH:MM:SS HH:MM:SS HH:MM:SS Finance first_name firs	

10.Scroll the list of edit styles until JobRoles1 displays.

Click it to apply the edit style JobRoles1 to the title column.

Select File>Save from the menu bar.

#### Change the column header, label, and display width of title

Now you change the label and header text for the title column. The text you supply appears on forms and reports you create.

The column name is title, but the text you want to display is Job role. Also, you change the display width to 1.5 inches (3.81 cm). The internally stored data value is only two characters, but the values you intend to display are longer.

1. The title column should still be current (if not, display its pop-up menu and select Properties).

Click the Headers tab to bring the Headers property page for the title column to the front in the Object Details view.

All the extended attribute information for a column is definable using the various pages in the Object Details view.

2. Type Job Role in the Label box.

Type Job Role in the Heading box.

😥 Column	(PB Demo	o DB V2017 I	IM) - conta	×
Headers	Display	Validation	Edit Style	•
- Label -				_
Label:				
Job Role				
Position:				
left				•
- Headin	g ——			-
Heading:				
Job Role			-	
			-	-
Position:				
center				•

3. Click the Display tab to bring the Display page to the front.

Type 1.5 in the Display Width box.

🕼 Column (PB Demo DB V2017 IM) - conta					
General Headers Display Validation					
Display Format: (None) Justify: left Display Height (in): 0.166 Display Width (in):					
1.5 Case:					
(None) 🔻					
Picture					

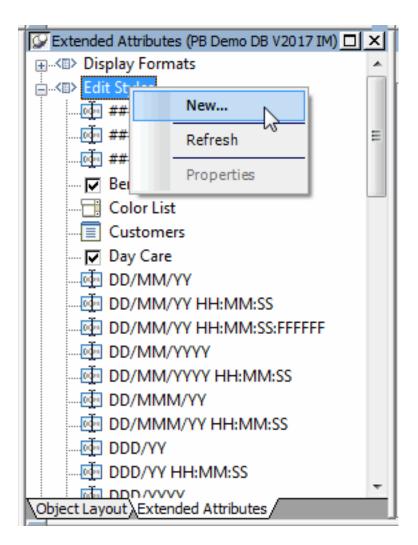
4. Select File>Save from the menu bar.

InfoMaker adds the extended attribute information for the column to the extended attribute system tables.

#### Assign a DropDownDataWindow edit style and initial value to state

For the state column, you assign an edit style that includes all the state names (as well as the provinces of Canada). Then when you enter information into this field, you pick from a list of states. You also set the initial value to MA, since many of your contacts are in Massachusetts.

1. In the Extended Attributes view, display the pop-up menu for Edit Styles and select New.



The Edit Style dialog box displays.

🖾 Edit Style (PB Demo DB V2017 IM) - Unt 🗖	×
General	
Edit Style	-
Style Type	
Edit 👻	
Format	
ŢŢ	=
Case	-
▼	
Limit	
Accelerator	
Auto Solostian	
Auto Selection	
Display Only	
Show Focus Rectangle	
Empty String is NULL	
Password	Ŧ

2. Type StateCode1 in the Edit Style box.

Select DropDownDW from the Style drop-down list.

Click the ellipsis next to the DataWindow drop-down list.

The Open dialog box displays.

Select d\_dddw\_states and click OK.

The StateCode1 edit style uses a report (DataWindow) named d\_dddw\_states. The report gets its values from the state table.

×	🕼 Edit Style (PB Demo DB V2017 IM) - Sta 🗖	×
^	General	
	DropDownDW 👻	
	Accelerator	
=	Case	
-	· · · · · · · · · · · · · · · · · · ·	
	Allow Editing	
	Empty String is NULL	
	Required	
	Always Show List	
	Always Show Arrow	
	Horizontal Scroll Bar	=
	Vertical Scroll Bar	
	Split Horizontal Scroll Bar	
	Auto Horizontal Scroll	
	AutoRetrieve	
	Limit	
	0	
	Lines In DropDown	
	0	
	Width of DropDown(%)	
	DataWindow	
Ŧ	d_dddw_states	

## About DropDownDataWindow edit styles

A DropDownDataWindow edit style gets its values from a report that it references. The report gets its values from the database.

This is what the d\_dddw\_states report looks like.

ID	Name	Country
В	Alberta	CAN
٩K	Alaska	NUSA
AL	Alabama	ซีรA
AR	Arkansas	USA
AZ	Arizona	USA
BC	British Columbia	CAN
CA	California	USA
CO	Colorado	USA
СТ	Connecticut	USA
DC	District of Columbia	USA

3. Select state\_id from the list for Display Column and for Data Column.

Type 550 for the Width of DropDown.

Select Vertical Scroll Bar.

Click Save to accept the definition of the StateCode1 edit style.

Edit Style (PB Demo DB V2017 IM) - StateCode1		×
General		
Edit Style		•
StateCode1		
Style Type		-
DropDownDW		=
Accelerator	_	
Case		
Any (0)	-	
Allow Editing	_	
Empty String is NULL		
Required		
Always Show List		
Always Show Arrow		
Horizontal Scroll Bar		
Vertical Scroll Bar		
Split Horizontal Scroll Bar		
Auto Horizontal Scroll		
AutoRetrieve		
Limit	_	
0	×	
Lines In DropDown		
•		
Width of DropDown(%)		
	\$	
DataWindow		
	••	
Display Column		
state_id Data Column	<u> </u>	
	_	
_state_id	<u> </u>	Ŧ

InfoMaker adds the StateCode1 edit style to the extended attribute system tables, where it is available to be assigned to any appropriate column in the database. Now you assign it to the state column in the contact1 table.

4. Display the pop-up menu for the state column in the contact1 table and select Properties.

5. In the Column Properties view, select the Edit Style tab.

Select StateCode1 for the edit style to assign to the state column.

(If the StateCode1 edit style is not listed, select View>Reset View. This refreshes the list of edit styles.)

💯 Colum	n (PB Demo	DB V2017	7 IM) - conta	act1:state	
General	Headers	Display	Validation	Edit Style	
Style Nar	ne:				
SocSecN StateCo	lumber				
StateCo StatusBu	de1				<b>-</b>

This assigns the StateCode1 edit style (which includes 63 entries -- states, territories, and possessions of the United States and provinces of Canada) to the state column in the contact table. The values that this edit style displays and the values that it stores are state postal abbreviations (such as MA for the state of Massachusetts).

6. Click the Validation tab.

Make sure the Validation Rule setting is (None).

Type MA in the Initial Value box.

This assigns an initial value of MA to the state column.

Columr	n (PB Demo	DB V201	7 IM) - conta	ct1:state	
General	Headers	Display	Validation	Edit Style	
Validation	n Rule:				
(None)					
Initial Val	ue:				
MA					-

The Validation page lets you create and assign a validation rule to a column and enter an initial value for the column.

You are not going to assign a validation rule. You have handled validation by forcing the user to select from exactly 63 valid values presented in the States drop-down DataWindow.

#### About column validation rules

You can use column validation rules to express requirements for entries in a column. For example, you could define a rule for a salary column that requires salaries to be greater than \$15,000 and less than \$100,000.

When you assign a column validation rule to a column, no one can enter a value that breaks the rule.

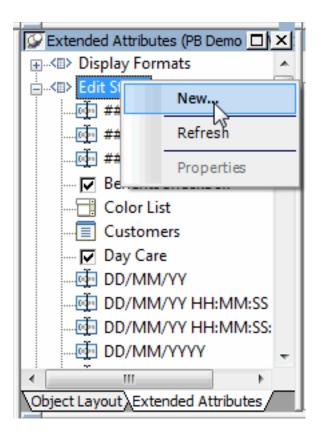
7. Select File>Save from the menu bar.

InfoMaker saves the extended attributes you just defined for the state column in the extended attribute system tables.

#### Define an Edit Mask edit style for phone and fax

Now you define an Edit Mask edit style to display phone and fax numbers for both viewing and editing.

1. In the Extended Attributes view, display the pop-up menu for Edit Styles and select New.



The Edit Style property displays.

🖾 Edit Style (PB Demo DB V2017 IM) - Untitled 📃	×
General	
Edit Style	<b>_</b>
Style Type	
Edit 👻	Ξ
Format	
Case	
Show Focus Rectangle	
Empty String is NULL	
Password	
Required	
Auto Horizontal Scroll	
Auto Vertical Scroll	
Horizontal Scroll Bar	≡
Vertical Scroll Bar	
Use Code Table	
Use Ellipsis	-

2. Type TelephoneNumber1 in the Edite Style box.
Select EditMask in the Style drop-down list.
Delete xxx and type (###) ###-#### in the Mask box.
This specifies the edit mask.

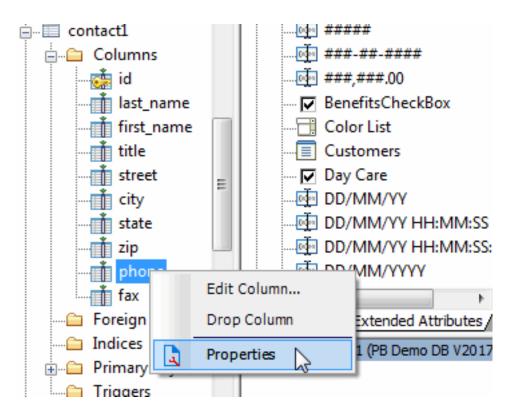
🕼 Edit Style (PB Demo DB V2017 IM) - TelephoneNumbe	×
General Calendar	
Edit Style	
TelephoneNumber 1	
Style Type	
EditMask 🔹	Ξ
Mask	
(###) ###-####	
Accelerator	
AutoSkip	
Show Focus Rectangle	
Туре	
String	
Read Only	Ŧ

The pound signs (#) in the Mask box are placeholders for numbers. Only numbers 0 through 9 can be entered in each of these positions. Parentheses, the hyphen, and the space are where you want them to display.

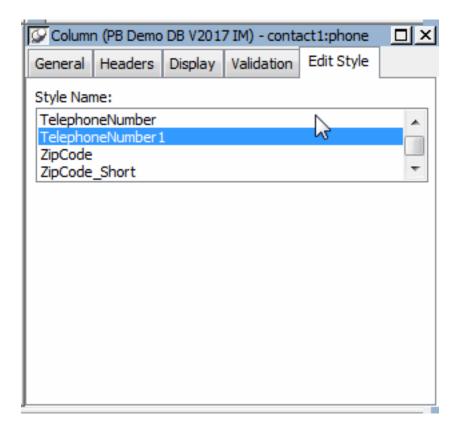
3. Click Save to accept the definition of the Edit Mask edit style named TelephoneNumber1.

InfoMaker adds the TelephoneNumber1 edit style to the extended attribute system tables in the database and lists it as one of the available edit styles in the Extended Attributes view.

4. Display the pop-up menu for the phone column and select Properties.



5. In the Object Details view, click the Edit Style tab, then scroll the list and select the TelephoneNumber1 edit style.



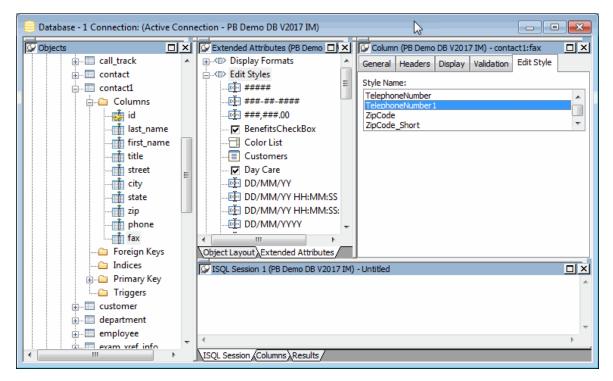
This assigns the TelephoneNumber1 edit style to the phone column. Now you use the same edit style with the fax column. Once you have created an edit style, it is available for any column.

6. Display the pop-up menu for the fax column and select Properties.

InfoMaker prompts you to save the changes you just made in assigning the TelephoneNumber1 edit style to the phone column.

- 7. Select Yes.
- 8. In the Object Details view for the fax column, select the Edit Style tab and the TelephoneNumber1 edit style.

Select File>Save from the menu bar.



Now you have finished extending the definitions of your columns. Next you add data to the table.

# 5.3 Add data to the table

Where you are

- Create the database table
- Define extended attribute information
- > Add data to the table

To add data to your table, you import a text file of tab-separated values. Importing the file quickly adds 60 rows of data.

Typically you create a form to add data to the database. In the form tutorial you saw how to add data using a form.

- 💭 Extended Attributes (PB Demo 🗖 × 🗄 🔲 contact Edit Styles Ξ 00m ##### 🗆 ... 📰 New ###-##-#### Edit Data Grid.... Tabular... Data Pipeline Freeform... Alter Table... Drop Table Day Care 🝈 DD/MM/YY Add to Layout DD/MM/YY HH:MM:SS Print Definition DD/MM/YY HH:MM:SS: Fi DD/MM/YYYY Export Syntax ш Þ Properties Layout Extended Attributes
- 1. Display the pop-up menu for contact1 and select Edit Data>Grid.

The Results view shows column headers but no data. This view lets you view, add, modify, and delete data.

Sesults			
Id Last Name	First Name	Job Role	Street
•	m		۴.
ISQL Session Columns Res	ults		

2. Select Rows>Import from the menu bar.

The Select Import File dialog box displays. You might need to change to the Tutorial folder, which contains the file you use.

3. If necessary, change to the Tutorial folder.

Double-click the contact.txt file.

InfoMaker imports the data into the Results view (the data is not yet in the database).

HildebrandJaneMarketino1280 Washington St.Emeryvil2 SimmonLarrySales34 Granville St.Houston3 CritchSusanProduct developmen 45 Center St.Danvers	Result	ts				
2 SimmonLarrySales34 Granville St.Houston3 CritchSusanProduct developmen 45 Center St.Danvers	Id	Last Name	First Name	Job Role	Street	City
3 Critch Susan Product developmen 45 Center St. Danvers	1	Hildebrand	Jane	Marketina	1280 Washington St.	Emeryville
	2	Simmon	Larry	Sales	34 Granville St.	Houston
4Lambert Terry Administration 204 Page St. Canton	3	Critch	Susan	Product developmen	45 Center St.	Danvers
	4	Lambert	Terry	Administration	204 Page St.	Canton

4. Select Rows>Update from the menu bar.

This adds 60 rows of data to the database. To be sure that the data is in the database, you retrieve it from the database.

5. Select Rows>Retrieve from the menu bar.

InfoMaker retrieves all the contact data from the database and displays the data in the Results view.

6. Select File>Close from the menu bar.

This closes the Database painter.

You have created a new database table, complete with extended attribute information and data.

# **6 LESSON 5: Query Tutorial**

A query is a SQL SELECT statement created with the Query painter and saved with a name so that it can be used repeatedly to define data requirements. A SQL SELECT statement is the way you tell the DBMS exactly which rows and columns to retrieve.

Queries save time because you can use them to define all your data retrieval needs. For example, you can specify the columns and rows to select, as well as the sorting requirements. Then you specify the query as the data source whenever you create forms and reports that use the data the query is intended to retrieve.

#### How long does this tutorial take?

About 15 minutes.

# 6.1 About the query

The query you create retrieves financial data. When you have finished, the query returns data from the database that is similar to this.

SQL Preview							
Year	Quarter	Amount in thousands	Туре	Description	*		
2004	Q1	643	expense	Services			
2004	Q2	687	expense	Services			
2004	Q3	898	expense	Services	=		
2004	Q4	923	expense	Services			
2005	Q1	921	expense	Services			
2005	Q2	975	expense	Services			
2005	Q3	984	expense	Services			
2005	Q4	982	expense	Services			
2003	Q1	1437	expense	Sales & Marketing			
					Ŧ		
		III			Þ.		

The financial data is stored in two tables: the fin\_data and fin\_code tables.

The following illustration shows the two tables with some data. The code value in the fin\_data table gets its meaning from the fin\_code table.

Reality			5	×	Regult	2		6
Year	Quarter	Code	Amount in thousands	٠	Code	Туре		Descripti
1997	Q1	2	1839		ol	expense	Fees	
1997	q2	el	204		-2	expense	Services	
1997	Q2	#Z	975		e3	expense	Sales & Marketing	
1997	Q2	e3	4500		64	expense	RLD	
1997	Q2	e4	1472		-5	expense	Administration	
1997	02	65	983	-	Æ	tevenue	Feet	
1997	02 🤇	1	10968	1	12	levenue	Services	
1997	Q2	2	201					
1997	qз	el	214					
1997	63	6Z	584					
1997	Q3	e3	4532					
1997	Q3	e4	1439					
1397	Q3	60	305					
1997	a3 🤇	1	13567					
1997	Q3	2	2997	1				
1997	Q4	el	231					
1997	64	e2	982					
1997	Q4	e3	5299					
				-				
1			1		1			
	lunis (Rea	1187		×	Access of the second	struns), Feords		
Ready			Rowo 6:	A	Ready	,	vRows 1a	1/

For example, the r1 circled in the fin\_data table means the row reports a revenue amount for fees.

## 6.1.1 Select columns

Where you are

> <u>Select columns</u>

Save the query

Specify row selection criteria

Specify sorting for the rows

Create a report using the query

1. Click the New button in the PowerBar.

🛜 tutor_im.pbl - ODB	PB Demo	DB V20	17 IM] 🖓	Appeor	n InfoMa	ker	
File Tools Window	/ Help						
	20	=	Ξ	<u>015</u>	6	8	•
New Open Previe	v Sel Lib	Lib List	To-Do List	Library	DB Prof	Database	Exit

The New dialog box displays.

2. Select the Database tab and the Query icon.

Click OK.

	x
Library Object Database Tool Database Painer Query Data Pipeline	
OK Cancel	

The Select Tables dialog box displays. In this dialog box you can select one or more tables to use.

d untitled - Query	
Table Layout	
Selection List: ( )	
Select Tables       bonus       call_track       contact1       customer       department       employee       exam_xref_list       examples       catagories_list       fin_code       fin_data       ink	
Drag and drop columns in the order in which you want	
\Sort ⟨Where\Coroup \Having\Compute \Syntax/	

3. Click the tables named fin\_code and fin\_data.

Select Tables			x
bonus call_track contact contact1 customer department employee exam_xref_info exam_xref_list examples examples examples_categories_list fin_code fin_data ink	ß	4	Open New Cancel Help
Show system tables			

4. Click Open.

The fin\_code and fin\_data tables display. Both tables have a code column. The tables are joined on the code column.

💯 Table Layout
Selection List:
fin_code code type description

The fin\_data table has a code value in each row to indicate what the row of data applies to (for example, r1 means revenue from fees).

The fin\_code table stores information about codes, including the actual values (such as r1 and e4), the type of each code (revenue or expense), and a description of each code.

Next you select columns from the tables.

5. Click year in the fin\_data table.

Click quarter in the fin\_data table.

Click amount in the fin\_data table.

Click type in the fin\_code table.

Click description in the fin\_code table.

When you click each column, it is highlighted in the table and added to the selection list above the tables.

🗟 (Untitled) * - Query	
Table Layout	
Selection List:  year quarter amount type description	
fin_code code type description	
Drag and drop columns in the order in which you want	
"fin_code"."code"	<u> </u>
"fin_code". "type"	
"fin_code"."description" "fin_data"."year"	=
"fin_data"."quarter"	
"fin_data". "code"	
Sort Where Group Having Compute Syntax	T

6. Select Design>Preview from the menu bar.

You can see the results of your query. InfoMaker uses your query as it is currently defined to access the database and retrieve data.

Water_im.pbl - ODB [PB Demo DB V2017 IM]     - Appen InfoMaker       File     Edit     Design       Rows     Tools     Window       Help     wanghui@appeon.com						
C+ New		eview Sel Lib Lib List To-Do List	Library DB Pr		Det Contraction C	
🔳 SQI	L Preview					×
	Quarter	Amount in thousands	Туре		Description	<b>^</b>
2003	Q1	101	expense	Fees		
2003	•	93	expense	Fees		н
2003	•	129	expense	Fees		
2003	•	145		Fees		
2004	Q1	153	expense	Fees		
2004	Q2	149	expense	Fees		
2004	Q3	157	expense	Fees		
2004	Q4	163	expense	Fees		
2005	Q1	198	expense	Fees		
2005	Q2	204	expense	Fees		
2005	Q3	214	expense	Fees		
2005	Q4	231	expense	Fees		
2003	Q1	403	expense	Services		
2003	Q2	459	expense	Services		
2003	Q3	609	expense	Services		
2003	Q4	632	expense	Services		
2004	Q1	643	expense	Services		
•					•	
Ready			Rows 1 to 1	17 of 84		

7. Use the scroll bar to view the data.

Each row has either the word expense or the word revenue in the Type column. First you save the query and then you use the value in the Type column to select rows for the query.

8. Select File>Close from the menu bar.

You return to the workspace.

## 6.1.2 Save the query

Where you are

Select columns

> <u>Save the query</u>

Specify row selection criteria

Specify sorting for the rows

Create a report using the query

Now you save the query and give it a name.

1. Make sure you are back in the workspace.

Select File>Save from the menu bar.

The Save Query dialog box displays with the pointer positioned for you to type a name for the query.

2. Type q\_expenses.

Save Query	×
Queries:	
q_expenses	ОК
what_your_customers_are_ordering	Cancel
	Help
Comments:	
Conments.	A
	-
Library:	
C:\Users\Public\Documents\Appeon\InfoMaker	17.0\Tutorial\

3. Click in the Comments box and type This query retrieves financial data from the fin\_data and fin\_code tables. The query selects expense rows and sorts rows by year, description, and quarter.

Save Query	×
Queries:	
q_expenses	ОК
what_your_customers_are_ordering Comments:	Cancel Help
This query retrieves financial data from the fin	data and 🔺
fin_code tables. The query selects expense row sorts rows by year, description, and quarter.	
Library:	
C:\Users\Public\Documents\Appeon\InfoMaker	17.0\Tutorial\
<	►

4. Press Enter.

InfoMaker saves your query.

## 6.1.3 Specify row selection criteria

Where you are

Select columns

Save the query

> <u>Specify row selection criteria</u>

Specify sorting for the rows

Create a report using the query

Now you select the rows to include in the query. To do this you specify selection criteria.

The query you are creating is for expenses, so the rows you need are those whose type is expense. You do not need the rows whose type is revenue.

1. Click the Where tab at the bottom of the workspace if it is not in front.

The Where tab comes to the front. In the Where tab you specify selection criteria for retrieving rows.

🔀 tutor_i	m.pbl - ODB [PE	B Demo [	DB V201	7 IM] -	Appeor	n InfoMa	iker - [q	expens	ses -	Query]			x
🛃 File	View Design	n Tools	Wind	ow He	elp			wang	ghui@	⊉appeo	n.com 🔹	_	Ξ×
E 🕻	🖻 🔡	8	=	Ξ	<u>005</u>	6	8	0+	1		-	88	e
New	Open Preview	Sel Lib	Lib List	To-Do List	Library	DB Prof	Database	Exit		Save	Tables	Jain	Previe
💯 Table L	ayout												
Selection L	ist: 🔸 🔜 🔹 🕨	year o	uarter a	amount	type d	escriptior	ı						
fin_code			in_data										<u> </u>
code	┋		rear										
type descript	ion		uarter ode										
descript			mount										
		_											
													E T
	Column			Oper	ator			Value	_			Logical	_
	Column							Value				cogical	- 1
Va Curr					_			_	_				
Ready	ere (roup Havin	ng λCompu	ite <u>\</u> Synta	ax/									

 Click the first space under Column and then click the arrow to display a list of columns. Click the column named "fin\_code"."type" in the list of columns.

Column	Operator	Value	Logical
Sort Where Group Having Compute Syntax			
Ready	<u> </u>		
(ready)			

Column	Operator	Value	Logical
"fin_code". "type"	<b>▼</b> =		
"fin_code"."code"			
"fin_code"."type"			
"fin_code"."description"			
"fin_data"."year"			
"fin_data"."quarter"			
"fin_data"."code"			
"fin_data"."amount"			
Sort Where Group Having Compute Syn	tax/		

The equal sign (=) displays by default in the Operator box. This is what you want.

3. Move the pointer over the Value box.

Press the right mouse button to display the pop-up menu.

Select Value.

Column	Column Operator V		lue		Logical	
"fin_code"."type"	=					1
				Colum	ns	L
				Functio	ons	l
				Argum	ents	l
				Valu		l
				Select.		l
			_	Clear		l
				Insert	Clause	
Sort Where Group Having Compute Syntax	</th <td></td> <td></td> <td>Delete</td> <th>Clause</th> <td>h</td>			Delete	Clause	h

When you select Value, InfoMaker lists the values in the "fin\_code"."type" column, which are expense and revenue.

Туре		
expense		Paste
revenue	$\sim$	Cancel

4. Select expense and click the Paste button.

The selection criteria are complete. Notice that the value expense is surrounded with single quotes. These are required. If you type the value here rather than choosing it, you need to type the single quotes.

Column	Operator	Value	Logical
"fin_code"."type"	=	'expense'	
Sort Where Group Having Compute Syntax	</td <td></td> <td></td>		

Notice that the Logical box displays at the end of the line. This box is for choosing a logical connector such as AND so that you can specify more than one selection requirement. You do not need to use this box for this query.

5. Select Design>Preview from the menu bar.

Use the scroll bar to view the data.

Now all rows have expense in the Type column. Rows with revenue in the Type column are not retrieved.

2003 Q 2003 Q	01		Туре		escription	
2003 Q	-	101	expense	Fees		
	2	93	expense	Fees		
2003 Q	23	129	expense	Fees		
2003 Q	24	145	expense	Fees		
2004 Q	21	153	expense	Fees		
2004 Q	2	149	expense	Fees		
2004 Q	23	157	expense	Fees		
2004 Q	24	163	expense	Fees		
2005 Q	21	198	expense	Fees		
2005 Q	2	204	expense	Fees		
2005 Q	23	214	expense	Fees		
2005 Q	24	231	expense	Fees		
2003 Q	21	403	expense	Services		
2003 Q	22	459	expense	Services		

6. Select File>Close from the menu bar.

You return to the workspace.

### 6.1.4 Specify sorting for the rows

Where you are

Select columns

Save the query

Specify row selection criteria

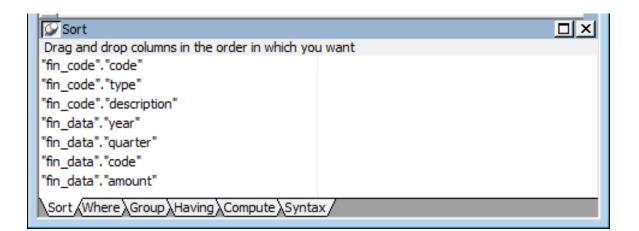
> <u>Specify sorting for the rows</u>

Create a report using the query

Now you specify sorting for the rows. When you specify sorting, you also enable grouping. Before you can define a group, the rows have to be sorted so that the data can be grouped.

1. Click the Sort tab at the bottom of the workspace.

The Sort tab comes to the front. In the Sort tab, you specify one or more columns to use for sorting the rows.



2. Scroll the list as needed to drag and drop column names.

Drag and drop "fin\_data"."year" from the left box to the right box.

Drag and drop "fin\_code"."description" from the left box to the right box.

Drag and drop "fin\_data"."quarter" from the left box to the right box.

In all cases Ascending is what you want. Ascending means years and quarters are ordered by increasing values and descriptions are alphabetized from A to Z.

Sort Sort		
Drag and drop columns in the order in which you	want	
"fin_code". "code"	"fin_data"."year"	Ascending
"fin_code"."type"	"fin_code"."description"	Ascending
"fin_code". "description"	"fin_data"."quarter"	Ascending
"fin_data"."year"		
"fin_data". "quarter"		
"fin_data". "code"		
"fin_data". "amount"		
	,	
Sort Where Group Having Compute Syntax	/	

3. Select Design>Preview from the menu bar.

Use the scroll bar to view the data.

First the rows are sorted by year. All the 2003 information is first. Then they are sorted by description so that expenses of the same category are together. Finally the rows are sorted by quarter so that the data is always time-sequenced.

Year	Quarter	Amount in thousands	Туре		Description	
2003	Q1	381	expense	Administration		
2003	Q2	402	expense	Administration		
2003	Q3	412	expense	Administration		
2003	Q4	467	expense	Administration		
2003	Q1	101	expense	Fees		
2003	Q2	93	expense	Fees		
2003	Q3	129	expense	Fees		
2003	Q4	145	expense	Fees		
2003	Q1	623	expense	R & D		
2003	Q2	784	expense	R & D		
2003	Q3	856	expense	R & D		
2003	Q4	1043	expense	R & D		

4. Select File>Close from the menu bar.

You return to the workspace.

Select File>Close from the menu bar.
 If prompted to save changes, click Yes.
 The Query painter closes.

### 6.1.5 Create a report using the query

Where you are

- Select columns
- Save the query

Specify row selection criteria

- Specify sorting for the rows
- > <u>Create a report using the query</u>

Now you use the query to create a new report.

 Click the New button in the PowerBar. Select the Object tab. Select the Tabular presentation style. Click OK.

N	ew	Carrow Contraction			and the second second	x
	Library Object	Database Tool				
	Form	Composite	Crosstab	Freeform	Graph	
	Grid	Group	Label	N-Up	OLE 2.0	
	<b>AB</b> RichText	Tabular	TreeView			
					ОК Са	ncel

The wizard for creating tabular reports displays.

2. Select the Query data source.

Make sure the Retrieve on Preview check box is selected and click Next.

Tabular Report Generator		8 x
renan	Which data source would you like to use?	
	Quick Select SQL Select Query External	
S S S S S S S S S S S S S S S S S S S	Stored Procedure	
2		
	< Back Next >	Cancel

The Select Query dialog box displays. In this dialog box you specify the query to use. You are going to use the query you just created as the data source.

3. Click the button to the right of the Specify Query box.

Select Query	2 ×	J
	Specify Query:	
	< <u>B</u> ack Next > Cancel	

The Open dialog box displays.

Open	×
Queries:	
q_expenses	ОК
g_expenses what_your_customers_are_ordering	Cancel Help
-	
Comments:	
This query retrieves financial data from the fin_ fin_code tables. The query selects expense row sorts rows by year, description, and quarter.	
Library:	
C:\Users\Public\Documents\Appeon\InfoMa	ker 17.0\Tutor
×	Þ
Object Type:	
Queries	<b>▼</b> :

4. Click q\_expenses and click OK.

The query q\_expenses displays in the Specify Query box.

Select Query	8	x
Janan -	Specify <u>Q</u> uery:	
B YOM	q_expenses	
	< <u>B</u> ack Next > Cance	

5. Click Next.

The Select Color and Border Setting dialog box displays. You are going to accept the defaults.

Select Color and Border Se	ettings	S ×	
	Select color and bor	ler options for your report:	
CP	Background Color:	Window Background	
	Text		
	Color:	Window Text 👻	
2	Border:	NoBorder 👻	
20	Columns		
www.	Color:	Window Text 👻	
5/57	Border:	NoBorder 🗸	
		Save as default	
		< <u>B</u> ack Next > Cancel	

6. Click Next.

A dialog box summarizing all your specifications displays.

7. Look over your specifications and then click Finish.

Your report displays in the Report painter. This is the Design view.

Design - (untitled)	
Year         Quarter         Amount in thousands         Type         Description	
Header1	
fin_daffin_data_qifin_data_amount· · · · · · · fin_code_tyfin_code_description · · · · · · · · · ·	· · · · :
Detail †	
Summary 1	
Footer†	
	-
	· ·
	•

InfoMaker uses the query you created to retrieve data from the database. Because the query includes selection criteria and sorting requirements, the database returns only the data you selected, in the sort order you specified. Here is the report in the Preview view.

Preview - (untitled)		]	
Year Quarter	Amount in thousands Type	Description	_
2003 Q1	381 expense	Administration	
2003 Q2	402 expense	Administration	
2003 Q3	412 expense	Administration	
2003 Q4	467 expense	Administration	
2003 Q1	101 expense	Fees	
2003 Q2	93 expense	Fees	
2003 Q3	129 expense	Fees	
2003 Q4	145 expense	Fees	
2003 Q1	623 expense	R & D	
2003 Q2	784 expense	R & D	
2003 Q3	856 expense	R & D	
2003 Q4	1043 expense	R & D	
2003 Q1	1437 expense	Sales & Marketing	
2003 Q2	2033 expense	Sales & Marketing	
2003 03	2184 expense	Sales & Marketing	

At this point you could continue designing and improving your report, but for this tutorial, you leave the Report painter now. You do not save the report.

8. Select File>Close from the menu bar.

This Message Box displays to see if you want to save your report.

Report		×
Save changes to (Untitled)?		
Yes	No	Cancel

9. Click No.

The Report painter closes.

# 7 LESSON 6: Graph Tutorial

Graphs present data in a visual way so that you can interpret it more easily. You can use graphs to supplement the numbers in a report or you can replace numbers with a graph. InfoMaker provides a variety of graph styles and options.

The graph you create in this tutorial uses financial data (the same data as the Query tutorial). You start with a report that is already created and add a graph to the report. When you have finished, the report and the graph look like this:

R	eport - expenses_gra	ph					3
				2017/6/26 Expenses for 2003 Page 1 of 3			* 
			Amount	Expense Breakdown			
			in thousands	13.7176			
	Administration			3.05%			
		Q1	381		S		
		Q2	402	21.55%			
		Q3	412	21:3376			
		Q4	467				
			1662				
	Fees			50.85%			
		Q1	101				
		Q2	93	Adminis Fees R & D Sales & Service			
		Q3	129				
		Q4	145				
			468				
	R & D						
		Q1	623				
		02	784				Ŧ
•						- F	

### How long does this tutorial take?

About 30 minutes.

## 7.1 Open the report to contain the graph

Where you are

- > Open the report to contain the graph
  - Create the basic graph

Save the graph (report)

Enhance the graph

Print the graph (report)

First you open a report that has been created for you. This report provides the data for your graph.

1. Click the Open button in the PowerBar.

🔡 tutor_i	m.pbl -	ODB [PB	Demo	DB V20:	17 IM] - /	Appeon	InfoMa	ker	
File To	ols W	/indow	Help						
E C (	B			=	Ξ	<u>00 %</u>	6	8	0
New	Open	Preview	Sel Lib	LibList	To-Do List	Library	DB Prof	Database	Exit

The Open dialog box displays. It lists objects in the current library (tutor\_im). You will be using the report named expenses.

2. Select the Reports object type at the bottom of the dialog box.

Click expenses (scroll the list).

Click OK.

Open X
Object:
expenses OK
emp_telephone_attributes emp_total_compensation employee_grouped_salary Help
expenses printer_sales tabular_orders
Comments: Tutorial: Used for tutorial. Expenses for years 1995-
1997
Library:
C:\Users\Public\Documents\Appeon\InfoMaker 17.0\Tutor
۲
Object Type:
Reports -

The report displays in the Report painter. Here is the Design view.

Design - expenses	Ľ
today()	: 🔺
Expenses for year 'Page' + page()	
	:
Amount in thousands	
Header1	-
1: Header group year i	_
description	
2: Header group description t	_
quart amoun	:
Detail †	_
sum(ar	
2: Trailer group description 1	_
1: Trailer group year 1	_
Summary 1	-

3. Look at the Preview view.

InfoMaker retrieves information from the database and displays as much as fits on the screen.

	I	Expenses for 2003	2017/0 Page 1
	Amount in thousands		
Administration			
Q1	381		
Q2			
Q3			
Q4	467		
	1662		
Fees			
Q1	101		

4. Use the scroll bar on the right edge of the report to see more data.

The entire report consists of three pages: one for 2003, one for 2004, and one for 2005.

## 7.2 Create the basic graph

Where you are

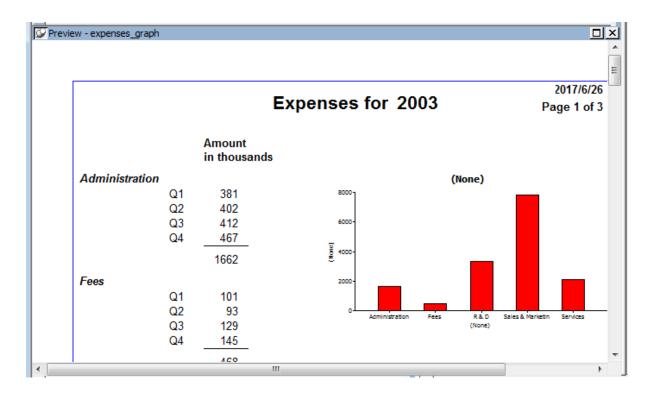
Open the report to contain the graph

> Create the basic graph Save the graph (report) Enhance the graph

### Print the graph (report)

The report you are working with has three pages, one for each of three years. The graph you create will be on all three pages. Its format will look the same from page to page, but the data will be for the correct year for each page.

This is what a graph for 2003 looks like. It shows the year's expenses in five categories.



1. Select Insert>Control>Graph from the menu bar.

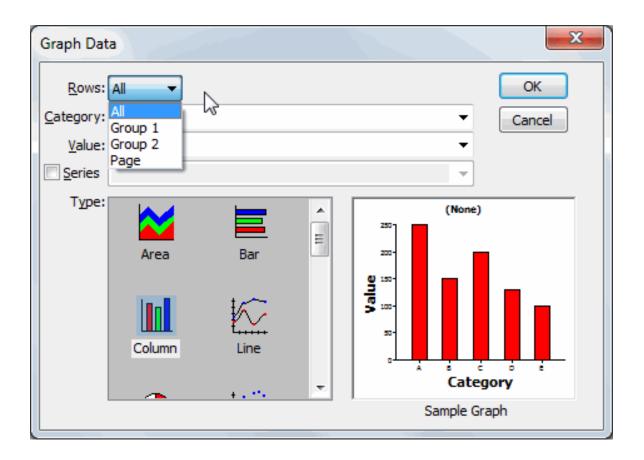
Click in the middle of the Design view.

The Graph Data dialog box displays.

Graph Dat	a	ander a see		×
Rows: Category: Value:				Cancel
Series				
Type:	Area	Bar	•	(None)
	Column	Line	Ŧ	S 100- 50- 3 4 5 5 0 5 Category
				Sample Graph

2. Click the down arrow on the Rows box.

The drop-down list shows choices for rows.



The All option includes all rows in the graph. Since you want to have the appropriate graph for each of three years, you do not want to include all rows in the graph at the same time.

The Group 1 option includes the rows for the current Group 1. Group 1 for this report is grouping by year, so Group 1 is what you want. When you specify Group 1, you ensure that the graph includes only rows from the current year.

3. Select Group 1.

Next you fill in the Category and Value boxes. The graph will show expenses for the year by type of expense. (For this graph you do not need to fill in the Series box.)

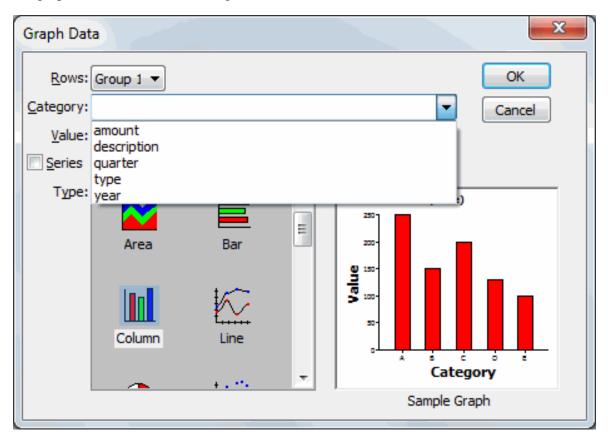
The description column provides the categories (Administration, Fees, R&D, Sales & Marketing, Services).

The sum of the amounts for the four quarters for each category provides the values.

1	Preview - expenses_	graph		Expenses for 2003	2017/6/27 Page 1 of 3
			Amount in thousan	ıds	
L	Administration				
		Q1	381		
		Q2	402		
		Q3	412		
		Q4	467		
L			1662		
L	Fees				
		Q1	101		
		Q2	93		
		Q.3	129		<b>T</b>
14					► .

4. Click the down arrow next to the Category box.

A drop-down list displays the columns you can choose to supply the categories to use in the graph. (You can think of categories as X values.)



5. Select description.

This specifies that the values in the description column are the categories.

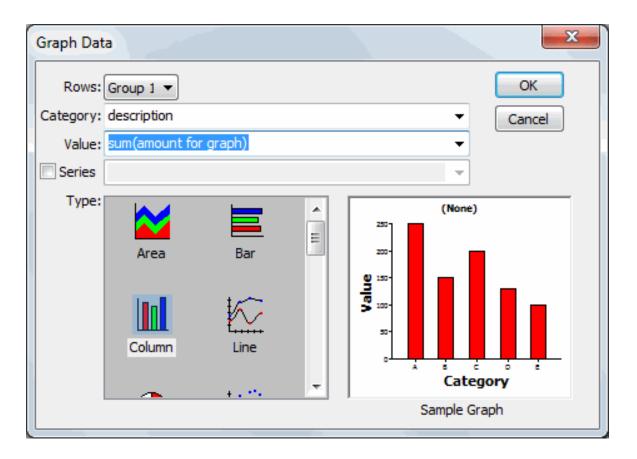
6. Click the down arrow next to the Value box.

A drop-down list displays all the choices for the column to supply the values to use in the graph. Notice that the choices include expressions such as counts and sums.

Graph Dat	ta	×
Rows:	Group 1 💌	ОК
Category:	description	▼ Cancel
<u>V</u> alue:		<b>•</b>
Series	amount count(description for graph)	
Туре:	count(quarter for graph) count(type for graph) count(year for graph) description	:)
	quarter sum(amount for graph) type year	
	Column Line	
		Category
		Sample Graph

7. Select sum(amount for graph).

This specifies that the sum of the amount column is the value. A separate value is calculated for each category within each year.



8. Click OK.

The graph displays in the report. What you see in the Design view is a representation of the graph. To see what it looks like in the report, you need to look at it in the Preview view.

		_
ß	Design - expenses	×
		<u></u>
·	today()	
	Expenses for year 'Page' + page()	
-		
	Amount	
1	in thousands	
-	Headert	-
	1: Header group year 1	-
-	1: Header group year 1 description	-
-	description	-
	description       2: Header group description 1       quart       amount	= - -
  -  -	description	-
	description       2: Header group description 1       quart amouni       Detail 1	-
- - - -	description       2: Header group description 1       quart       amount	-

9. Look at the graph in the Preview view.

In the Preview view, InfoMaker displays the data retrieved from the database both in the report and in the graph. The graph is small right now. In a few minutes, you will resize it.

view - expenses			<b>F</b> umanaa fan 2002	2017/6
			Expenses for 2003	Page 1 o
		Amount in thousands	S	
Administration				
	Q1	381	(Nore)	
	Q2	402	·····	
	Q3	412		
	Q4	467	2.000	
		1662		
Fees			100 J	
	Q1	101		
	Q2	93		
	Q3	129		
	Q4	145		
1				

# 7.3 Save the graph (report)

Where you are

Open the report to contain the graph

Create the basic graph

> <u>Save the graph (report)</u>

Enhance the graph

Print the graph (report)

Now you save the graph. The graph is part of the report, so to save the graph, you save the report that contains it. To leave the original report unchanged, you will use the Save As command. Save As saves a new report with the name you supply.

1. Select File>Save As from the menu bar.

The Save Report dialog box displays; the name of the report you opened earlier is highlighted.

Save Report	×
Reports:	<u> </u>
expenses	<del>из ок</del>
attrib_birthdays attrib_crossout_and_visible attrib_escapement_rotation	Cancel <u>H</u> elp
attrib_font_height attrib_format attrib_graybar_emp_total_comp	
attrib_italic attrib_rotate_emp_total_comp	
Comments:	
	*
Library:	
C: \Users \Public \Documents \Appeon \InfoMaker	17.0\Tutorial\
	l

- 2. Type expenses\_graph.
- 3. Click in the Comments box and type This report summarizes expense data for 2003, 2004, 2005. It includes graphs as well as numeric data.

Save Report	×
Reports:	
expenses_graph	ОК
attrib_birthdays attrib_crossout_and_visible attrib_escapement_rotation attrib_font_height attrib_format attrib_graybar_emp_total_comp attrib_italic attrib_rotate_emp_total_comp	Cancel Help
Comments:	
This report summarizes expense data for 2003, 2005. It includes graphs as well as numeric data	
Library:	
C:\Users\Public\Documents\Appeon\InfoMaker	17.0\Tutorial\
<	► 

4. Press Enter.

InfoMaker saves your report, including the graph.

## 7.4 Enhance the graph

Where you are

Open the report to contain the graph

Create the basic graph

Save the graph (report)

> Enhance the graph

Print the graph (report)

To enhance the graph, you:

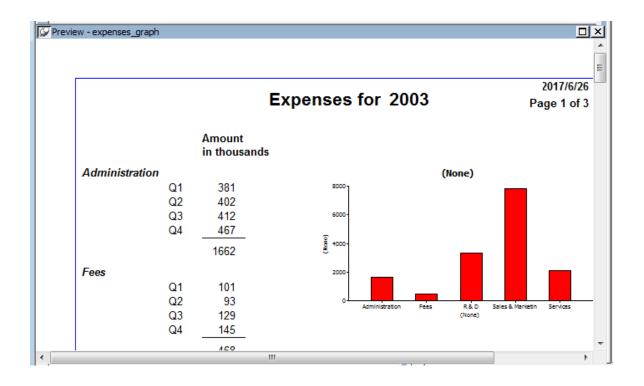
• Resize and reposition it

- Add a title
- Change graph types

### **Resize and reposition the graph**

Usually you work in the Design view when enhancing a report or graph, but to resize and reposition a graph, you may find it easier to work on it in the Preview view. You can get a much better idea of what the page looks like. The sizing and positioning changes you make are retained and reflected in the Design view.

1. Resize and reposition the graph so that it looks like the one shown here.



To make the graph bigger, put the pointer near a corner or a side until the pointer changes shape. Then press the left mouse button and drag the corner or the side. To move the graph, put the pointer in the middle of the graph. Then press the left mouse button and drag the graph.

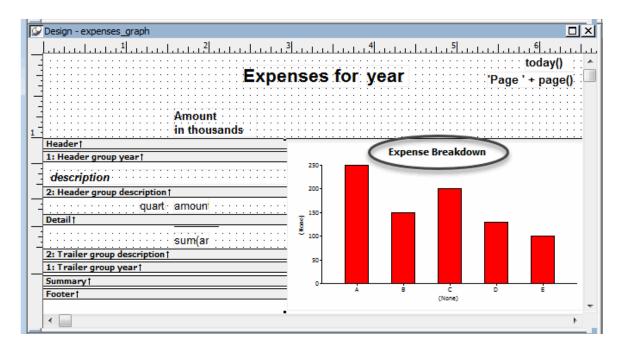
2. Use the scroll bar to display the graphs for 1996 and 1997.

### Add a title

1. Move the pointer to the middle of the graph in the Design view (not the Preview view) and click.

This selects the graph. The current title, (None), displays on the graph, in the text box in the StyleBar, and in the Properties view.

2. Type Expense Breakdown.



### Change the graph type

You can use many different types of graphs to present the same data. Sometimes it is useful to try different types until you find the one that works best for the data you are presenting.

Now you try several graph types with the expense data.

- 1. If you need to, use the scroll bar to display the entire graph in the Design view.
- 2. Move the pointer to the graph in Design view and click it.

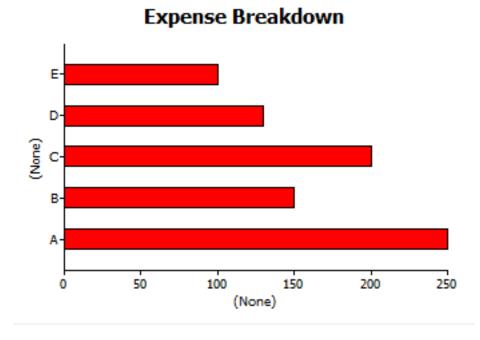
The graph is selected. The properties for the graph display in the Properties view, with the General page on top. On this page you can choose a graph type. The current graph type is Column (Col (7)).

💯 Proper	ties - gr_	1			×
General	Pointer	Position	Tooltip	4	•
Title					*
Expense	Breakdo	wn			
Name					
gr_1					
Tag					
HideSr	naked				
🔽 Visible				Z	Ε
Border					
NoBo	order (0)		•	Z	
Text Colo	r				
Wir	ndow Tex	t	•		
BackColor	r				
Wir	ndow Bad	kground	•		
ShadeCol	or				
			-		
GraphTyp	e				
📗 Col (	(7)		-		
Rende	er 3D				
Legend					
Bottom (	4)		•		
Perspecti	ve				Ŧ
1					

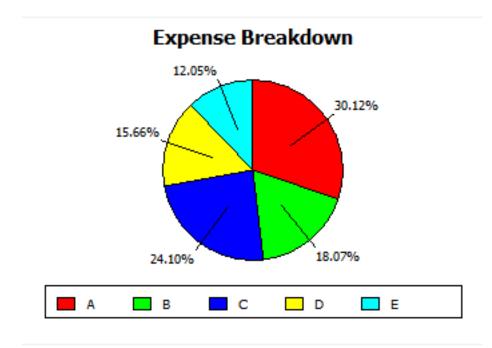
3. Select the Bar (2) graph type from the Graph Type drop-down list.

💯 Proper	ties - gr_	1			×
General	Pointer	Position	Tooltip	1	×
Title					4
Expense	Breakdo	wn			
Name					
gr_1					
Tag					
HideSi	naked				
🔽 Visible	1			Z	Ε
Border					
NoBe	order (0)		•	Z	
Text Colo	r				
Wir	ndow Tex	t	•		
BackColor	r				
Wir	ndow Bac	karound	•		
ShadeCol	or				
			-		
GraphTyp	e				
🗮 Bar (	(2)		-		
Rende	er 3D				
Legend					
Bottom (	(4)		•		
Perspecti	ve				-

The graph looks like this in the Preview view.

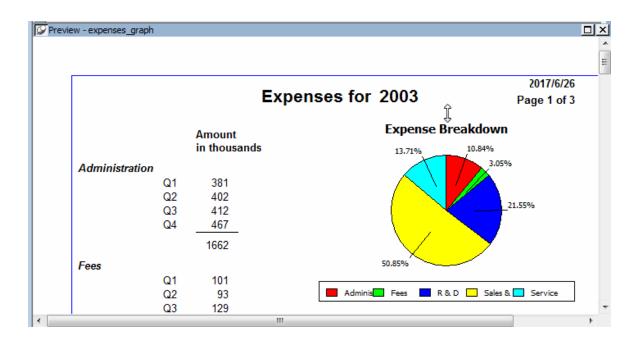


 Select the Pie (13) graph type from the Graph Type drop-down list. InfoMaker redisplays the graph using the Pie style.



Pie seems to be a good style for showing the data, so you do not change the graph style again.

This is what the report with the graph looks like now.



# 7.5 Print the graph (report)

Where you are

Open the report to contain the graph

Create the basic graph

Save the graph (report)

Enhance the graph

> <u>Print the graph (report)</u>

1. Click the Preview view to make sure that it is current.

Select File>Print Report from the menu bar.

The Print dialog box displays.

Print	×
Printer: Adobe PDF	
Copies: 1	ОК
Page Range	Cancel
<ul> <li>All</li> <li>Current Page</li> <li>Pages:</li> </ul>	Printer Help
Enter page numbers and/or page ranges separated by commas. For example, 2,5,8-10	Print to File Collate Copies
Print: All Pages in Range	

2. Click OK to accept the defaults and print the report.

Your report goes to the printer or the print queue.

3. Select File>Close from the menu bar.

If you have not saved all your changes, a message box displays to see if you want to save changes.

4. Click Yes (if the message box displays).

The Report painter closes.

# 8 LESSON 7: Environment Tutorial

You use the Library painter to manage forms, reports, queries, pipelines, and the InfoMaker environment. In the Library painter you can:

- Open a form, report, query, or pipeline, and go automatically to the appropriate painter
- Set the current library
- Copy, move, and delete forms, reports, queries, and pipelines

In this tutorial you learn how to do these tasks.

How long does this tutorial take?

About 30 minutes.

### 8.1 Open forms, reports, and queries

Where you are

> Open forms, reports, and queries

Create a new library

Copy forms, reports, and queries

Create a new report from an existing one

### You need a blank formatted diskette

Before you begin, make sure you have a blank formatted diskette.

First you learn about using the Library painter to open forms, reports, and queries. When you open one of these, you automatically go to the appropriate painter. (This is also true for pipelines, but you do not work with pipelines in this tutorial.)

#### If you have not installed the Form painter

A few of the steps in this tutorial and the next one refer to forms. Just skip those steps. You can do the tutorials without the forms.

1. Click the Library button in the PowerBar.



The Library painter workspace displays.

2. Select View>Most Recent Object from the menu bar.

Computer 🔲	хI	tutor_im.pbl (C:\Users\P	ublic\Documents\Appe	on\InfoMaker 17.0\Ti	utorial) in C:\Us	Б
> Tutorial				Modification Date		<u>ت ا</u>
<ul> <li>Iutorial</li> <li>Iutorial</li> <li>Iutorim.pbl</li> <li>attrib_birthdays</li> <li>attrib_crossout_and_visible</li> <li>attrib_escapement_rotation</li> <li>attrib_forn_height</li> <li>attrib_format</li> <li>attrib_graybar_emp_total_comp</li> <li>attrib_italic</li> <li>attrib_start_date</li> <li>attrib_start_date</li> <li>attrib_xy</li> <li>composite_base</li> <li>composite_product_sales</li> <li>composite_rproducts</li> <li>contact_n_up</li> <li>contactgrid</li> <li>contactgrid</li> </ul>	E	Name d_dddw_fin_code d_dddw_products d_dddw_sales_orders d_dddw_sales_reps d_dddw_states emp_business_cards emp_count_by_sala emp_info_freeform emp_labels_pb_column emp_list_grid emp_name_tags emp_nup_salary_be emp_telephone_attr emp_total_compens employee_grouped expenses	Version	Modification Date 2003/8/5 15:33:08 2003/8/5 15:33:08	201 201 201 201 201 201 201 201 201 201 201 201	
customers_with_nested_orders		expenses_graph printer sales		2017/6/26 11:21 2003/8/5 15:33:08		
e d_dddw_cust	Ŧ	tabular_orders		2003/8/5 15:33:08		

The painter lists the forms, queries, reports, and pipelines in the current library and selects the object you worked on most recently. When you install InfoMaker, the current library is the InfoMaker sample library (tutor\_im.pbl).

The list includes many samples as well as the form, query, and reports you created earlier.

3. Scroll the list to the bottom until you see the form contact\_maintenance, which is the form you created earlier.

Double-click the form.

The form displays in the Form painter. Accessing your form by double-clicking its name in the Library painter is the same as opening the form in the Form painter.

Layout					٦×
Id: contact					_
Last Name: contact_last_name	Add a contact	Delete a	contact	Save change	s
First Name: contact_first_name		d Last Name	First Name	Job Role	
Job Role: contact_title		u Last Name	FIISUNAINE	JOD KOIE	Â.
Street: contact_street					
City: contact_city					
State: contact					Ξ
Zip: contact_zip					
Phone: contact_phone					
Fax: contact_fax					
	4			- F	
					- P

### 4. Click the Run button in the

	$\mathbf{E}$
PainterBar.	Run

Your form runs.

Maintain Contact Information					x
<b>Id:</b> 1	~				_
Last Name: Hildebrand	Add a contact	Delete a d	contact	Save changes	5
First Name: Jane		Last Name	First Name	Job Role	
Job Role: Marketing	1	Hildebrand	Jane	Marketing	
Street: 1280 Washington St.	2	Simmon	Larry	Sales	Ξ
City: Emeryville	3	Critch	Susan	Product developme	
City. Enerywie	4	Lambert	Terry	Administration	
State: MI	5	Sullivan	Dorothy	Customer support	
<b>Zip:</b> 94608	6	Paull	Rose	Finance	
•	7	Glassmann	Beth	Product developme	
Phone: (510) 555-1309	8	Powell	Gene	Training	
Fax: (510) 555-4209	9	Fish	Jeffrey	Marketing	
	10	Clarke	Molly	Sales	
	11	Kelley	William	Documentation	
	12	Lyman	Thomas	Customer support	-
	٩ [	III		Þ	

5. Click the Close button in the



The running form closes.

6. Select File>Close from the menu bar.

You return to the Library painter. Now you look at some other forms.

- 7. Double-click the form customer\_maintenance.
- 8. Click the Run button in the



This form is for maintaining customer information.

Customer Maintenance		
	Customer Informatio	
	Customer ID Company Name	101 Group Group
	Address	
2017/6/26	City, State, Zip	Rutherford NJ 07070-
	- Contact Information	·
	Contact	Michaels Devlin
	Phone	(201) 555-8966

9. Click the Close button to return to the Form painter workspace.

10.Select File>Close from the menu bar to return to the Library painter.



Now you open a report.

11.Double-click the report emp\_total\_compensation.

The report displays in the Report painter.

12.Scroll the report in the Preview view.

Total Compensation Report Salary Plus Benefits			Value of	health ins. = \$4,8 life insurance = \$ day care = \$5,200	(5.43 x sa	alary)/1	,000	Page 2 of 2017/6/2	
Department ID	Employee ID	Employee First Name		loyee t Name	Salary	Health Ins.	Life Ins.	Day Care	Salary P Benefit
200	902	Judy	Sno	w	\$87,500	1	1		\$92,77
	913	Ken	Mart	el	\$55,700		1		\$56,00
	930	Ann	Tayl	or	\$46,890	1	<b>V</b>	<b>V</b>	\$57,1
	949	Pamela	Sava	arino	\$72,300			÷.	<mark>\$77,4</mark>
	1021	Paul	Ster	ling	\$64,900				\$75,2
	1039	Shih Lin	Cha	0 88888	\$33,890	2 <b>1</b> 1	<b>V</b>	<b>V</b>	\$39,27
	1101	Mark	Pres	ston	\$37,803	1	1		\$42,80
	1142	Alison	Clar	k	\$45,000		1	1	\$50,44
	1162	Kevin	Gog	gin	\$37,900	1	1		\$42,90
	1446	Caroline	Yeur	ng	\$32,300		1		\$32,47

13.Select File>Close from the menu bar.

The Report painter closes and the Library painter displays.

### 8.2 Create a new library

Where you are

Open forms, reports, and queries

> <u>Create a new library</u>

Copy forms, reports, and queries

Create a new report from an existing one

Now you create a new library on a diskette so that you can copy some items into the library.

1. Insert a blank formatted diskette into your diskette drive.

First you create a new library on the diskette.

### **About InfoMaker libraries**

InfoMaker uses special libraries to hold forms, reports, queries, and pipelines. These libraries have the file extension pbl. When you save (or copy or move) a form, report, query, or pipeline, it goes into a pbl file (pronounced pibble).

2. Select File>New from the menu bar.

The New dialog box displays.

3. Select the Library tab and click OK.

The Library wizard displays.

4. Type a:\mylib.pbl and click Finish.

InfoMaker creates the new library on the diskette. This library is now the current library; its name displays in InfoMaker's title bar. The previous current library still displays in the Library painter.

# 8.3 Copy forms, reports, and queries

Where you are

Open forms, reports, and queries

Create a new library

> <u>Copy forms, reports, and queries</u>

Create a new report from an existing one

Now you copy a form, a query, and two reports onto the diskette. Then you can give them to another InfoMaker user. That user can then use and/or modify them. Remember that the other user must also be able to access the database.

All InfoMaker users have SQL Anywhere and the contact table. That means other InfoMaker users can run the form, query, and reports you have created in this tutorial.

1. In the List view of the Library painter, click contactgrid (scroll the list in the Library painter as necessary).

Press Ctrl and click contacts\_by\_jobrole.

Press Ctrl and click d\_dddw\_states.

Press Ctrl and click q\_expenses.

Press Ctrl and click contact\_maintenance.

The five objects you selected are highlighted. You can copy, move, or delete them. You are going to copy them to the diskette.

### Tip

You can sort the view by modification date to make it easier to locate objects you have just created or changed.

tutor_im.pbl (C:\Users\F	ublic \Documents \App	eon\InfoMaker 17.0\T	utorial) in C: \Us	l⊻!
Name	Version	Modification Date	Com	-
Contactgrid		2017/6/26 11:21	201	
d_dddw_states		2017/6/26 10:56	201	
🛃 q_expenses		2017/6/26 10:23	201	=
contacts_by_jobrole		2017/6/23 13:34	201	-
💼 contact_maintenance		2017/6/23 09:35	201	
i customer_details		2017/6/21 18:48	201	
ist customer_list		2017/6/21 18:48	201	
i customer_maintenance		2017/6/21 18:48	201	
gepartments_and_t		2017/6/21 18:48	201	
💼 employee, data		2017/6/21 18:48	201	

#### Why you include the report named d\_dddw\_states

The contact\_maintenance form uses a DropDownDataWindow edit style for the state column. That edit style uses the report named d\_dddw\_states, which must be present in the library when you run the form.

If you create a new library for objects you create using the Demo Database, you need to copy the eight reports that begin with d\_dddw from the tutor\_im.pbl to the new library. These reports go with the DropDownDataWindow edit styles that the tables in the Demo Database use.

There is a way to make the reports centrally available. See the InfoMaker User's Guide.

2. Click the Copy button in the



PainterBar. Copy

The Select Library dialog box displays.

3. Change drives to the diskette drive.

Select mylib.pbl.

Click Open.

InfoMaker copies the selected objects onto the diskette. It takes a minute or so. You can see messages about the copying at the bottom of your screen.

4. Navigate to the diskette drive.

The Library painter lists the contents of mylib.pbl, the current library.

Name	Version	Modification Date	Compilation Date
d q_expenses		2017/6/26 10:23	2017/6/26 10:23:49
contacts_by_	jobrole	2017/6/23 13:34	2017/6/23 13:34:55
🚊 contact_maint	tenance	2017/6/23 09:35	2017/6/23 09:35:32
😐 contactgrid		2017/6/21 18:48	2017/6/21 18:48:32
📒 d_dddw_state	es	2017/6/21 18:48	2017/6/21 18:48:31

# 8.4 Create a new report from an existing one

Where you are

Open forms, reports, and queries

Create a new library

Copy forms, reports, and queries

> <u>Create a new report from an existing one</u>

Now you create a new report from one of the reports on the diskette. You then make a slight modification to the report.

The modification adds powerful options to the report that you can see when you run the report.

1. Double-click the contactgrid report.

Name	Version	Modification Date	Compilation Date
q_expenses		2017/6/26 10:23	2017/6/26 10:23:49
contacts_by_jobrole		2017/6/23 13:34	2017/6/23 13:34:55
contact_maintenance		2017/6/23 09:35	2017/6/23 09:35:32
contactgrid		2017/6/21 18:48	2017/6/21 18:48:32
d_dddw_states		2017/6/21 18:48	2017/6/21 18:48:31

You go to the Report painter with the contactgrid report open.

Design - contactgrid	미시
Id: Last Name First Name Job Role Street	ity · · · · 🔺
Header†	
id : last_name : first_name : title : : : : : street : : : : : city : :	<u>::::</u>
Detail †	
Summary †	
Footer	
	-

2. Select File>Save As from the menu bar.

The Save Report dialog box displays. You are going to change the name of the report so that you can keep the old one and create a new one with some changes.

Save Report	×
Reports:	
contactgrid	ОК
contactgrid contacts_by_jobrole d_dddw_states	Cancel Help
Comments: Tutorial: Used for Tutorial. Added to a form in painter.	the Form
Library:	
e:\mylib.pbl	

3. Type the name contactgrid\_with\_prompting and click OK.

The report name changes. You are now working on a report called contactgrid\_with\_prompting.

Design - contactgrid_with_prompting	
- Id Last Name First Name Job Role Street City	
Headert	
id last_name first_name title street city city	::: <b>\$</b>
Detail†	
Summary †	
Footer†	
	<b>T</b>
	- P -

4. Select View>Column Specifications from the menu bar.

The Column Specifications view displays, listing all the columns in the report. You can choose one, many, or all columns for prompting. The columns you choose here let you control what rows are selected when you run the report.

For example, if you choose the city column here, you can specify a city when you run the report. Then only rows that include that city are retrieved.

Ø	Column Spec	1	1	rid_with_prompting	믹쓰
	Name	Туре	Prompt	DB Name	
1	id	number		contact.id	
2	last_name	char(15)		contact.last_name	
3	first_name	char(15)		contact.first_name	
4	title	char(2)		contact.title	_
5	street	char(30)		contact.street	
6	city	char(20)		contact.city	
7	state	char(2)		contact.state	
8	zip	char(5)		contact.zip	
9	phone	char(10)		contact.phone	
					-
-	Column Spe	cification - (	contacto	grid_with_prompting	Dai 🕨

5. Select all the check boxes.

You are choosing all columns so that you can enter criteria for any column you want when you run the report.

Ø	Column Spec	ification - c	ontactg	rid_with_prompting	미×		
	Name	Туре	Prompt	DB Name	<b>^</b>		
1	id	number	<b>V</b>	contact.id			
2	last_name	char(15)	<b>V</b>	contact.last_name			
3	first_name	char(15)	<b>V</b>	contact.first_name			
4	title	char(2)	<b>V</b>	contact.title			
5	street	char(30)	<b>V</b>	contact.street	E		
6	city	char(20)	<b>V</b>	contact.city			
7	state	char(2)	<b>v</b>	contact.state			
8	zip	char(5)	<b>V</b>	contact.zip			
9	phone	char(10)	1	contact.phone			
-	Column Specification - contactgrid_with_prompting (Da)						

6. Select Rows>Retrieve from the menu bar.

The Specify Retrieval Criteria dialog box displays. Since you said that you wanted to be prompted for all the columns, the dialog box includes all the columns.

Column:	id	last_name	first_name	title	*	ОК
Criteria:					=	
Or:						Cancel
						Help
						Thep

7. Click in the first cell in the title column.

Use the horizontal scroll bar to move the title column into full view.

A box with an arrow displays to show there is a drop-down list for that column.

Specify R	etrieval Crite	ria		Σ	Z
Column:	st_name	first_name	title & sreet		
Criteria:					
Or:				Cancel	
				Help	
	4		•		

- 8. Click the arrow to open the list.
- 9. Select Customer support.

This puts Customer support in the title column. This means that the report is limited to contacts in Customer support.

pecify R	etrieval Crite	ria				×
Column:	st_name	first_name	title 🔱	street	*	ОК
Criteria:			Customer suppo 👻			
Or:			Administration			Cancel
0			Customer support			
			Documentation			Help
			Finance			
			Human resources			
			Marketing		+	
	•	III	Other Product developmen	Þ		

#### 10.Click OK.

The report displays. It includes only contacts in Customer support.

ld	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	Fax	
5	Sullivan	Dorothy	customer support	54 Minuteman Dr.	Lincoln	MA	01742	(508)555-3925	(508)555-9931	
12	Lyman	Thomas	Customer support	64 Story Rd.	Emeryville	CA	94608	(510)555-5378	(510)555-3372	
16	Lencki	John	Customer support	208 Brook Road	Burlington	MA	01803	(617)555-5348	(617)555-4619	
18	Hayne	William	Customer support	88 Cornfield Ave.	Acton	MA	01720	(508)555-7780	(508)555-4422	
21	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30339	(404)555-2239	(404)555-8111	
22	Goggin	Kevin	Customer support	88 East Main St.	Houston	TX	77079	(713)555-3340	(713)555-9211	
23	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883	(617)555-4499	
32	Reeves	Scott	Customer support	89 Linden St.	Iselin	NJ	08830	(603)555-0988	(603)555-5556	
44	Short	Russell	Customer support	12 Newton St.	Needham	MA	02192	(617)555-0993	(617)555-1170	
53	Tippet	Debbie	Customer support	85 Aberdeen Rd.	Schaumburg	IL	60173	(706)555-8227	(704)555-8474	
54	Hodson	Jack	Customer support	69 Lincoln St.	Acton	MA	01720	(508)555-2998	(508)555-0022	
59	Masalsky	Kurt	oustomer support	29 Garden St.	Atlanta	GA	30339	(404)555-5111	(404)555-8347	

By setting up a report to prompt for criteria, you give yourself a lot of power and flexibility when you run the report. You learn more about this when you create an application in the next tutorial.

11.Select File>Close from the menu bar.

When prompted to save changes, click Yes.

The Report painter closes and you return to the Library painter.

Now your new report is listed. It is a good idea to add comments to document the report. You can do that now.

12.Position the pointer on contactgrid\_with\_prompting.

Press the right mouse button to display the pop-up menu.

Select Properties.

The Properties dialog box displays. The entry already has comments from the report you started with. You edit the comments.

13.Type This report lets me enter selection criteria when I run the report.

Properties	×
General	
Object Name:	contactgrid_with_prompting
Library:	E:\mylib.pbl
Last Modified:	2017/6/26 14:08:43
Last Compiled:	2017/6/26 14:08:43
Size in Bytes:	14652
SCC Version:	
Comments:	
This report lets m	e enter selection criteria when I run the report.
ОК	Cancel Apply Help

14.Click OK.

The newly added comment displays.

ľ	wylib.pbl in A:\			
	Name	Version	Modification Date	Compilation Date
	contactgrid_with_prompting		2017/6/26 14:10	2017/6/26 14:08:43
	contactgrid		2017/6/26 13:49	2017/6/26 13:49:02
	🥫 q_expenses		2017/6/26 10:23	2017/6/26 10:23:49
1	contacts_by_jobrole		2017/6/23 13:34	2017/6/23 13:34:55
1	contact_maintenance		2017/6/23 09:35	2017/6/23 09:35:32
	d_dddw_states		2017/6/21 18:48	2017/6/21 18:48:31
	* III			4

Now you have become familiar with many of the tasks you can do in the Library painter.

15.Continue directly to the next tutorial, the Application tutorial.

(Leave the Library painter open.)

# 9 LESSON 8: Application Tutorial

An InfoMaker application is a collection of related reports, forms, and pipelines. For example, the Contacts application that you create in this tutorial has:

- A form to maintain data in the contact table
- A report to list all contacts
- A report to list only contacts that meet your criteria

		Ic	1: 1											
			: Hildebrand	Add a co	ntact	Delete a co	ontact	Save changes						
				Add a co	ILIALL	Delete a co	Untact	Save changes						
		First Name	a: Jane		Id	Last Name	First Nam	e Job Role	<u>^</u>					
		Job Rok	a: Marketing				Jane	Marketing						
		Street	t: 1280 Washington St.				Larry	Sales	E					
			: Emeryville		3 (	Dritch	Susan	Product developme						
					4 1	ambert	Terry	Administration						
		State	e: MI		5 5	Sullivan	Dorothy	Customer support						
		Zip	94608				Rose	Finance						
		Phone	e: (510) 555-1309				Beth	Product developme						
			3 7				Gene	Training						
		Fax	c (510) 555-4209				Jeffrey	Marketing						
							Molly William	Sales Documentation						
							Thomas	Customer support						
					4	m	Thomas	Customer support	-					
anort contacts by ial	brolo				R Pope	rt contactor	id with m	romating						
eport - contacts_by_jol	brole			- • •		rt - contactgr ast Name Fil			Street	City	State	Zin		
eport - contacts_by_jol	brole				ld L	ast Name Fi	rst Name	rompting Job Role Varketing	Street 1280 Washington S	City St. Emeryville	State	Zip 94608	Phone	
		My Contac	te		ld L 1 Hik	ast Name Fin Jebrand Jan	rst Name ne M	Job Role	Street 1280 Washington S 34 Granville St.					(510)
eport - contacts_by_jol 2017/6/2		My Contac	ts		ld L 1 Hik	astName Fin debrand Jan mon La	rst Name ne M rry S	Job Role Marketing	1280 Washington S	St. Emeryville	MI	94608	Phone (510)555-1309	(510)
		My Contact	ts		ld L 1 Hik 2 Sin 3 Cri	ast Name Fin debrand Jan mon La tch Su	rst Name ne M irry S isan F	Job Role Marketing Sales	1280 Washington S 34 Granville St.	St. Emeryville Houston	MI TX	94608 77079 01923 94608	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-2246	(510) (713) (508) (617)
	6	My Contact	ts		ld L 1 Hik 2 Sin 3 Cri 4 Lar 5 Su	ast Name Fi Jebrand Jai Imon La Inch Su Inbert Te Iivan Do	rst Name ne M irry S isan F arry A prothy C	Job Role Marketing Sales Product development Administration Customer support	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr.	St. Emeryville Houston Danvers Canton Lincoln	MI TX MA MA MA	94608 77079 01923 94608 01742	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-2246 (508)555-3925	(510) (713) (508) (617) (508)
		My Contact	<b>ts</b> Phone	Fax	Id         L           1         Hik           2         Sin           3         Cri           4         Lai           5         Sul           6         Pa	astName Fi Jebrand Jam Imon La Ich Su Inbert Te Ilvan Do JII Ro	rst Name ne M irry S isan F erry A prothy C ose F	Job Role Marketing Sales Product development Administration Customer support Finance	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St.	St Emeryville Houston Danvers Canton Lincoln Marblehead	MI TX MA MA MA MA	94608 77079 01923 94608 01742 01945	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-2246 (508)555-3925 (617)555-6392	(510) (713) (508) (617) (508) (617)
	6				Id         L           1         Hilk           2         Sin           3         Cri           4         Lan           5         Sul           6         Pa           7         Glassion	ast Name Fin Jebrand Jan Imon La Ich Su Ibert Te Iivan Do Jil Ro Issmann Be	rst Name ne M Irry S Isan F arry A Dorothy C Dose F sth F	Job Role Marketing Sales Product development Administration Customer support Finance Product development	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St. 44 Oak St.	St. Emeryville Houston Danvers Canton Lincoln Marblehead Lexington	MI TX MA MA MA MA	94608 77079 01923 94608 01742 01945 02173	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-2246 (508)555-3925 (617)555-6392 (617)555-6392	(510) (713) (508) (617) (508) (617) (617)
	6				Id         L           1         Hilk           2         Sim           3         Cri           4         Lar           5         Sul           6         Pa           7         Gla           8         Po	ast Name Fil Jebrand Jai mon La tch Su hbert Te livan Do ull Ro ssmann Be well Ge	rst Name ne M Irry S Isan F erry A Drothy C Doothy C Doothy C Doothy F ene 1	Job Role Marketing Sales Product development Administration Customer support Finance Product development Training	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St. 44 Oak St. 552 West Main St.	St. Emeryville Houston Danvers Canton Lincoln Marblehead Lexington Lexington	MI TX MA MA MA MA MA	94608 77079 01923 94608 01742 01945 02173 02173	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-2246 (508)555-3925 (617)555-6392 (617)555-6392 (617)555-0273 (617)555-3528	(510) (713) (508) (617) (508) (617) (617) (617)
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2017/6/2	6 Last Name Brier Collns	<b>First Name</b> Michael MaryBeth	Phone (617) 555-2398 (617) 555-1199	Fax (617) 555-3337 (617) 555-9586	Id         L           1         Hilk           2         Sin           3         Cri           4         Lai           5         Sul           6         Pa           7         Gla           8         Po           9         Fis           10         Cla           11         Kel	ast Name Fil debrand Jai mon La mbert Te livan Do all Ro ssmann Be well Ge h Jel rke Mo ley Wil	rst Name ne M Irry S Isan F Irry A Drothy C Dse F ene 1 ffrey M DIV S Illiam C	Job Role Marketing Sales Product development Administration Customer support Finance Product development Training Warketing Sales	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St. 44 Oak St. 552 West Main St. 68 Red Acre Rd.	St. Emeryville Houston Danvers Canton Lincoln Marblehead Lexington Lexington Lexington Lexington Burlington	MI TX MA MA MA MA MA MA	94608 77079 01923 94608 01742 01945 02173 02173 02173	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-2246 (508)555-3925 (617)555-6392 (617)555-6392 (617)555-3528 (617)555-3528	(510) (713) (508) (617) (508) (617) (617) (617) (617) (617) (617)
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2017/6/2	6 Last Name Brier Collns	<b>First Name</b> Michael MaryBeth	Phone (617) 555-2398 (617) 555-1199	Fax (617) 555-3337 (617) 555-9586	Id         L           1         Hild           2         Sim           3         Crit           4         Lat           5         Sul           6         Pa           7         Gla           8         Po           9         Fis           10         Cla           11         Ke           12         Lyt           13         Da	ast Name Fil Jebrand Jau Imon La Ich Su Inbert Te Ilvan Do Ilvan Do Ssmann Be well Ge h Jel rke Mc ley Wil nan Th vidson Joo	rst Name ne M Irry S Isan F Irry A Irry A Irry A Isan F Isan F Isan T Ifrey M Ifrey M	Job Role Warkeling Sales Product development Administration Customer support Finance Product development Training Warkeling Sales Documentation Customer support	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St. 44 Oak St. 552 West Main St. 68 Red Acre Rd. 55 Pine Grove Rd. 16 Rainbow Rd.	St. Emeryville Houston Darwers Canton Lincoln Marblehead Lexington Lexington Lexington Burlington Emeryville	MI TX MA MA MA MA MA MA MA MA CA	94608 77079 01923 94608 01742 01945 02173 02173 02173 02173 02173 02173 94608	Phone (510)555-1309 (713)555-9800 (508)555-4829 (617)555-2326 (617)555-3325 (617)555-3328 (617)555-3528 (617)555-3528 (617)555-4327 (617)555-4374	(510) (713) (508) (617) (508) (617) (617) (617) (617) (617) (617) (617) (617) (617) (510) (510)
2017/6/2	6 Last Name Brier Colins Lambert	<b>First Name</b> Michael MaryBeth Terry	Phone (617) 555-2398 (617) 555-1199 (617) 555-2246	Fax (617) 555-3337 (617) 555-9586 (617) 555-3692	Id         L           1         Hild           2         Sim           3         Crit           4         Lat           5         Sul           6         Pa           7         Gla           8         Por           9         Fis           10         Cla           11         Kel           12         Lyt           13         Da           14         Pel	ast Name Fil Jebrand Jai Immon La Ich Su Inbert Te livan Do Jil Ro ssmann Be well Ge well Ge well Ge h Jel rike Mo ley Wil nan Th nan Th tengil Ma	rst Name nne M Irrry S Isan F Irrry A Irrry A Irrry A Isan F Isan F Isan F Isan T Ifrey M Illiam E Isan M Isan M I	Job Role Warketing Sales Product development Administration Customer support inance Product development Training Warketing Sales Documertation Customer support	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St. 44 Oak St. 552 West Main St. 68 Red Acre Rd. 55 Pine Grove Rd. 16 Rainbow Rd. 64 Story Rd.	St. Emeryville Houston Darwers Canton Lincoln Marblehead Lexington Lexington Lexington Burlington Emeryville	MI TX MA MA MA MA MA MA MA CA CA	94608 77079 01923 94608 01742 01945 02173 02173 02173 02173 02173 01803 94608 94608	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-4829 (617)555-6392 (617)555-6392 (617)555-5328 (617)555-5328 (617)555-5328 (617)555-5328 (617)555-53783	(510) (713) (508) (617) (508) (617) (617) (617) (617) (617) (617) (617) (617) (617) (510) (510) (510)
2017/6/2	6 Last Name Brier Colins Lambert	<b>First Name</b> Michael MaryBeth Terry	Phone (617) 555-2398 (617) 555-1199 (617) 555-2246	Fax (617) 555-3337 (617) 555-9586 (617) 555-3692	Id         L           1         Hilk           2         Sim           3         Critical           4         Lar           5         Sul           6         Pas           7         Glas           8         Por           9         Fis           10         Classical           11         Kei           12         Lyri           13         Data           14         Pet           15         Mod	ast Name Fil Jebrand Jai Immon La Ich Su Inbert Te livan Do Jil Ro ssmann Be well Ge well Ge well Ge h Jel rike Mo ley Wil nan Th nan Th tengil Ma	rst Name ne M Irrry S Issan F Frrry A Orothy C Soe F fene 1 ffrey M Illiam D Illiam D Illiam C Inomas C Inomas C ann M ark S Sawn S	Job Role Warkeing Sales Product development Administration Customer support Finance Product development Training Warketing Sales Documentation Customer support Warketing Sales	1280 Washington S 34 Granville St. 45 Center St. 204 Page St. 54 Minuteman Dr. 78 Bay St. 44 Oak St. 552 West Main St. 68 Red Acre Rd. 16 Rainbow Rd. 64 Story Rd. 26 Briarwood Ter.	St. Emeryville Houston Danvers Canton Lincoln Marblehead Lexington Lexington Lexington Lexington Burlington Emeryville Emeryville	MI TX MA MA MA MA MA MA MA CA CA CA	94608 77079 01923 94608 01742 01945 02173 02173 02173 02173 02173 01803 94608 94608	Phone (510)555-1309 (713)555-8960 (508)555-4829 (617)555-4829 (617)555-6392 (617)555-5328 (617)555-5223 (617)555-3253 (617)555-4325 (617)555-4325 (617)555-4325 (617)555-4325 (510)555-3533	(510) (713) (508) (617) (517) (617) (617) (617) (617) (510) (510) (510) (510) (510) (510) (510) (510) (510) (510)

#### How long does this tutorial take?

About 30 minutes.

## 9.1 About the application

You will create an application, complete with toolbars and menus. You will create a shortcut for the application. Then you can run it from your desktop, just the way you run InfoMaker or any other application.

Conta	⊾ cts								
ontac	te								
ОЫ	ects Window	Help							
¢ .	Ad Hoc ?		2	<b>I</b> 4					
<	By Job Ad H	loc By Job	Data	Exit					
	Data								
-									
<b>6</b>	ontacts								
File	Display Rov	vs Window	v Help		1				
	Ê 🗉	20	ē :	Q 🚺	•				
F	forms Reports	Ad Hoc I	By Job [	Data E	xit				
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B	etrieve First	Prior	Next	Last Pi	rint Close				
	Report - conta	ctarid with	promoting						5
	-	First Name	_	Role	Street	City			<
	Critch	Susan	Product dev		45 Center St.	City Danvers	State MA	Zip 01923	
2	Glassmann	Beth	Product de		45 Center St. 44 Oak St.	Lexington	MA	01923	
3		David	Product de	-	16 Waverly Rd.	Burlington	MA	01803	
3 7 19	Chin	Daviu		velopment			MA	01803	
7	Chin Mulley	Joan			109 Westborn Ter	. Burlington		01730	
7 19			Product dev	velopment	109 Westborn Ter 23 Clare Ave.	. Burlington Bedford	MA	01700	
7 19 26	Mulley	Joan		velopment velopment			MA	02192	
7 19 26 30	Mulley DeMarco	Joan Michael	Product de Product de	velopment velopment velopment	23 Clare Ave.	Bedford			
7 19 26 30 35	Mulley DeMarco Burrill	Joan Michael Dana	Product der Product der Product der	velopment velopment velopment velopment	23 Clare Ave. 234 Beacon St.	Bedford Needham	MA	02192	
7 19 26 30 35 40 42 46	Mulley DeMarco Burrill Jordan	Joan Michael Dana Susan	Product der Product der Product der Product der Product der Product der	velopment velopment velopment velopment velopment	23 Clare Ave. 234 Beacon St. 95 Gordon St.	Bedford Needham Burlington	MA	02192 01803	
7 19 26 30 35 40 42	Mulley DeMarco Burrill Jordan Haddad	Joan Michael Dana Susan Paul	Product der Product der Product der Product der Product der	velopment velopment velopment velopment velopment	23 Clare Ave. 234 Beacon St. 95 Gordon St. 889 Pleasant St.	Bedford Needham Burlington Schaumburg	MA MA IL	02192 01803 60173	
7 19 26 30 35 40 42 46	Mulley DeMarco Burrill Jordan Haddad Crossland	Joan Michael Dana Susan Paul Ellen	Product der Product der Product der Product der Product der Product der	velopment velopment velopment velopment velopment	23 Clare Ave. 234 Beacon St. 95 Gordon St. 889 Pleasant St. 27 Rush Rd.	Bedford Needham Burlington Schaumburg Burlington	MA MA IL MA	02192 01803 60173 01803	

## 9.1.1 Create the application

Where you are

> <u>Create the application</u>

Create a shortcut to the application

Start the application

Use the Data button

Use the By Job button

Use the Ad Hoc button

The application you create consists of an executable file and an initialization file. The initialization file provides information about the database to the executable file.

For example, InfoMaker itself is an application that has an executable file called im170.exe. This is the file you start running when you start InfoMaker. InfoMaker also has an initialization file called im.ini.

#### Terms

The executable file is also called an exe file (pronounced exxy). The initialization file is also called an ini file (pronounced inny).

#### Make sure you have the diskette

Before you begin, make sure you have the diskette from Lesson 7 in the diskette drive.

1. If you are continuing from Lesson 7, go to step 2.

Otherwise, go to the Library painter with the diskette in the drive and the library named mylib.pbl set to be the current library (File>Select Library).

The Library painter shows the contents of mylib.pbl.

💯 mylib.pbl in A:\			
Name	Version	Modification Date	Compilation Date
contactgrid_with_prompting		2017/6/26 14:10	2017/6/26 14:20:19
contactgrid		2017/6/26 13:49	2017/6/26 13:49:02
d_expenses		2017/6/26 10:23	2017/6/26 10:23:49
contacts_by_jobrole		2017/6/23 13:34	2017/6/23 13:34:55
contact_maintenance		2017/6/23 09:35	2017/6/26 14:38:38
😑 d_dddw_states		2017/6/21 18:48	2017/6/21 18:48:31
<			

2. Select Design>Create Executable from the menu bar.

The Create Executable dialog box displays. In this dialog box you specify a title for the application window, a file name for the executable file, the folder for storing the executable file, and an icon for the application.

Create Executable		
Executable <u>T</u> itle: PowerLauncher	I	
Executable File <u>N</u> ame		
		Browse
Product <u>V</u> ersion:		
1,0,0,1	1,0,0,1	
File Version:		
1,0,0,1	1,0,0,1	
Executable <u>I</u> con:		
		Browse
	Vew Visual <u>S</u> tyle Controls	
	< Back Next > Cancel	Help

3. Type Contacts in the Executable Title box.

Later, when you run your application, the title bar displays the word Contacts.

Create Executable		
Executable <u>T</u> itle: Contacts		
Executable File <u>N</u> ame	::	
	][	Browse
Product Version:		
1,0,0,1	1,0,0,1	
File Version:		
1,0,0,1	1,0,0,1	
Executable <u>I</u> con:		
		Browse
	Visual Style Controls	
	< Back Next > Cancel	Help

4. Type contacts.exe in the Executable File Name box.

This assigns a name to your executable file.

Create Executable	
Executable <u>T</u> itle: Contacts	
Executable File <u>N</u> ame	2:
contacts.exe	Browse
Product <u>V</u> ersion:	
1,0,0,1	1,0,0,1
File Version:	
1,0,0,1	1,0,0,1
Executable Icon:	
	Browse
	New Visual <u>S</u> tyle Controls
	< Back Next > Cancel Help

5. Click the Browse button next to the Executable Icon box to select an icon for your application.

The icon will display in the Windows shortcut. You create a shortcut shortly.

6. Change to the Tutorial folder (the icon is there).

Click emp.ico.

Click Open to accept the emp.ico file as the icon for your application.

You return to the Create Executable dialog box. The icon and its full name display.

Create Executable	
Executable <u>T</u> itle: Contacts	
Executable File Name	
contacts.exe	Browse
Product Version:	
1,0,0,1	1,0,0,1
File Version:	
1,0,0,1	1,0,0,1
Executable <u>I</u> con:	
C: \Users \Public \Doc	uments\Appeon\InfoMaker 17.0\Tutoria
	Vew Visual Style Controls
	< Back Next > Cancel Help

7. Type Version 1.0.1 in the Product Version and File Version boxes on the right.

Leave 1,0,0,1 in the boxes on the left.

The text you type in the boxes on the right displays on the Version tab page of the Properties dialog box when you look at the properties of the executable file in Windows Explorer. The four numbers separated by commas on the left can be used by installation programs.

Create Executable	
Executable <u>T</u> itle:	E C
Contacts	
Executable File <u>N</u> ame	2:
contacts.exe	Browse
Product Version:	
1,0,0,1	1.0.1
File Version:	
1,0,0,1	1.0.1
Executable Icon:	
C:\Users\Public\Doc	uments\Appeon\InfoMaker 17.0\Tutoria Browse
	New Visual <u>S</u> tyle Controls
	< Back Next > Cancel Help

8. Click Next to select items for the application.

The Select Items dialog box displays. Now you select the form and reports for your application.

9. Click the check box for contactgrid\_with\_prompting.

Click the check box for contacts\_by\_jobrole.

Click the check box for contact\_maintenance.

Select Items	
Check item(s) to include in executable:	
Name	Comment
<ul> <li>contactgrid</li> <li>contactgrid_with_prompting</li> <li>contacts_by_jobrole</li> <li>d_dddw_states</li> <li>contact_maintenance</li> </ul>	Tutorial: Used for Tutorial. Added to a This report lets me enter selection crite This report shows my contacts grouped Report for DropDownDataWindow: Gri This form updates my contact table.
•	4
Select All	Deselect All
< Back Net	xt > Cancel Help

10.Click Next to define the toolbar items.

The Executable Items dialog box displays. It lists the form and reports to be included in your application. The information you enter in the boxes to the right of the list of items is for the currently selected item.

Executable Items	
To have a button for a form, report, or pipeline executable, select the form, report, or pipeline the toolbar properties using the controls on the	e in the list box on the left and set
Set Toolbar Properties for:	Hide Report
contactorid with prompting contacts_by_jobrole contact_maintenance	<u>P</u> icture: (None) ▼ <u>T</u> ext:
	MicroHelp:
Menu and Toolbar Style Contemporary Traditional	
< Back Finish	Cancel Help

#### Finish defining all information before you click Finish

Do not click the Finish button or press enter until you have finished defining information for all the items you want to include in the application's toolbar. Once you click Finish or press enter, InfoMaker generates the executable file.

If you create the executable file before you mean to, select Design>Create Executable again. InfoMaker remembers what you have specified. You can continue where you left off and re-create the executable file.

11.Make sure contactgrid\_with\_prompting is selected.

In the Picture box, display the list and select CheckStatus!.

Click the Text box and type Ad Hoc.

Press Tab to go to the MicroHelp box.

Type List contacts that meet the specified criteria.

The Picture box specifies the picture for the button, which will be in the application's toolbar.

The Text box provides text for the button and for the menu item that will run contact\_maintenance in your application.

The MicroHelp box provides MicroHelp for the button and menu item.

Executable Items	
To have a button for a form, report, or pipelin executable, select the form, report, or pipeline the toolbar properties using the controls on th	e in the list box on the left and set
Set Toolbar Properties for:	Hide Report
contactgrid_with_prompting  contacts_by_jobrole contact_maintenance	Picture: CheckStatus!
	<u>T</u> ext: Ad Hoc
-	MicroHelp:
Menu and Toolbar Style Contemporary Traditional	that meet the specified criteria.
< Back Finish	Cancel Help

12.Click contacts\_by\_jobrole.

In the Picture box, display the list and select Cascade!.

Click the Text box and type By Job.

Press Tab to go to the MicroHelp box.

Type List all contacts grouped by job role.

Executable Items	
To have a button for a form, report, or pipeline executable, select the form, report, or pipeline the toolbar properties using the controls on the	in the list box on the left and set
Set Toolbar Properties for:	Hide Report
contactgrid_with_prompting	Picture:
contact_maintenance	Cascade! 🔻 🖶
	<u>T</u> ext:
	By Job
~	MicroHelp:
Menu and Toolbar Style	Il contacts grouped by job role.
<ul> <li>Contemporary</li> <li>Traditional</li> </ul>	
< Back Finish	Cancel Help

13.Click contact\_maintenance.

In the Picture box, select the entry AddWatch!

Click the Text box and type Data.

Press Tab to move to the MicroHelp box.

Type Maintain contact information in the database.

Executable Items	
To have a button for a form, report, or pi executable, select the form, report, sor pi the toolbar properties using the controls o	ipeline in the list box on the left and set
Set Toolbar Properties for:	Hide Report
contactgrid_with_prompting	▲ Picture:
contacts_by_jobrole contact_maintenance	AddWatch! 👻 🦉
	Text:
	Data
	→ MicroHelp:
Menu and Toolbar Style	act information in the database.
<ul> <li>Contemporary</li> <li>Traditional</li> </ul>	
< Back Fin	nish Cancel Help

Now you have finished providing information for the form and the two reports that are in your application.

14.Click Finish.

InfoMaker creates the application, which consists of an executable file and an initialization file. These files are in the Tutorial folder.

Now that InfoMaker has finished creating the application, you return to the Library painter.

Before leaving the Library painter, you select tutor\_im.pbl as the current library. This is where the samples and the tutorial work are kept.

15.Select File>Select Library from the menu bar.

16.Select tutor\_im.pbl from the Recent page in the Select File dialog box and click OK.

The current library is tutor\_im.pbl again.

17.Select File>Exit from the menu bar.

InfoMaker closes.

#### 9.1.2 Create a shortcut to the application

Where you are

Create the application

> Create a shortcut to the application

Start the application

Use the Data button

Use the By Job button

Use the Ad Hoc button

Now you make the application easy to access. To do this you create a shortcut on the Windows desktop.

 Move the pointer to an empty area of the desktop and press the right mouse button. The pop-up menu for the desktop displays.

2. Select New and then Shortcut.

The Create Shortcut dialog box displays.

Create Shortcut	×
What item would you like to create a shortcut for?	
This wizard helps you to create shortcuts to local or network programs, files, fo Internet addresses.	lders, computers, or
Type the location of the item:	Browse
Click Next to continue.	
	Next Cancel

3. Click the Browse button to locate contacts.exe.

In the Browse dialog box, change folders to the Tutorial folder.

Select contacts.exe and click Open.

You return to the Create Shortcut dialog box with the full path of the contacts.exe file in place.

- 4. Click Next.
- 5. In the text box, type Contacts over the name offered as a default (contacts.exe).

This provides a better title to display under the icon on the desktop.

🚱 д Create Shortcut	X
What would you like to name the shortcut?	ß
Type a name for this shortcut: contacts	
Click Finish to create the shortcut.	
	Finish Cancel

6. Click Finish.

Windows creates the shortcut to your application and displays it on the desktop. Now you must modify a property of the shortcut so that you can run your application.



 Move the pointer to the icon and press the right mouse button to display the pop-up menu. Select Properties to display the shortcut's property sheet.

👧 contacts Proper	ties	×									
Security	Details	Previous Versions									
General	Shortcut	Compatibility									
cont	acts										
Target type: A	pplication										
Target location: 1	utorial										
Target:	\Appeon\InfoMaker 17	7.0\Tutorial\contacts.exe"									
Start in:	"C:\Users\Public\Docu	uments\Appeon\InfoMakeı									
Shortcut key:	Shortcut key: None										
Run:	Normal window	•									
Comment:											
Open File Loc	ation Change Ico	on Advanced									
	ОК	Cancel Apply									

8. Select the Shortcut tab and type the location (path) of the Appeon system files in the Start in box:

#### About the location of Appeon system files

When you install InfoMaker, the installation process automatically puts the DLLs in a system folder. If you have changed the names of the folders used for installing, you need to use your names in this step.

The folder path is c:\Program Files\Appeon\Shared\PowerBuilder.

You must specify the name of the drive. If you use backslashes to specify a relative path name, the application will be unable to locate the system files.

9. Click OK.

Windows modifies the shortcut to your application. This modification enables Windows to find some InfoMaker modules (DLLs) required for running your application.

### 9.1.3 Start the application

Where you are

Create the application

Create a shortcut to the application

> <u>Start the application</u>

Use the Data button

Use the By Job button

Use the Ad Hoc button

In this exercise you start the application you created and take a look at its toolbar, MicroHelp, and menus.

1. Double-click the Contacts shortcut on your desktop.

Your application runs. Do not be surprised if it takes a minute to get everything running. The database itself has to start up so that you can access data.

The main window of the Contacts application displays.

	Contac	ts		$\sim$			
F	ile Obj	ects Wir	ndow H	elp			
	💼 Forms	😐 Reports	<b>?O</b> Ad Hoc	🖷 By Job	🦉 Data	<mark>∏</mark> ∳ Exit	
De	eady						
	cauy				_		

2. Notice the toolbar.

The Forms, Reports, and Exit buttons are automatically included. The Ad Hoc, By Job, and Data buttons are in the toolbar because you defined them when you created the application.

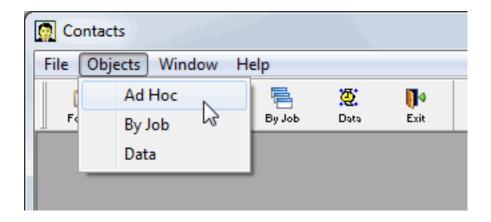


3. Move the pointer to one of the buttons.

Notice the MicroHelp at the bottom of the screen.

4. Click the Objects menu item.

Notice that Ad Hoc, By Job, and Data are included in the Objects menu. Your application has a toolbar and a menu. You can run forms and reports from either place.



## 9.1.4 Use the Data button

Where you are

Create the application

Create a shortcut to the application

Start the application

> <u>Use the Data button</u>

Use the By Job button

Use the Ad Hoc button

Now you use the Data button to run your form. You add a new contact and change information about an existing one.

#### 1. Click the Data button.

Your form displays. Notice that title bars identify your application and the particular part you are using. You also have the usual form toolbar that lets you view, add, and update information in the database.

	Rows	Window	Help									
💼 Forms	😐 Reports	<b>?O</b> Ad Hoc	🖶 Ву Јођ	Data	<mark>∏</mark> ∳ Exit							
→I Criteria	🛃 Apply	E Retrieve	I <b>d</b> First	4 Prior	) Next	► Last	2 Delete		🧟 🔗 Insert Upda			
Mainta	ain Cont	act Informa	ation									
	Id											
Lac		: Hildebran	d			Add a	contact		Delete a o	contact	Save changes	
			u								<b>_</b>	
	t Name							d	Last Name	First Name	Job Role	*
Jo	ob Role	Marketing	]				1		Hildebrand	Jane	Marketing	
	Street	1280 Wa	shington	St.			2		Simmon	Larry	Sales	=
	City	Emeryville	<u>,</u>				3		Critch	Susan	Product developme	
			-				4		Lambert	Terry	Administration	
	State	MI					5		Sullivan		Customer support	
	Zip	94608					6		Paul		Finance	
	Phone	(510) 55	5-1309				7		Glassmann		Product developme	
							8		Powell Fish	Gene	Training	
	Fax	(510) 55	5-4209				9		Clarke	Jeffrey Molly	Marketing Sales	
							11		Kelley	William	Documentation	
							12		Lyman	Thomas	Customer support	-

2. Click the Add a contact button in the form.

A blank form displays.

3. Enter information for a new contact.

Use 62 for the Id entry and make up the rest.

Be sure to fill in all blanks. (The only columns you can skip are phone and fax; the other columns are defined as required in the database.) Use the Tab key to move from box to box.

	Rows	Window	Help									
💼 Forms	😐 Reports	<b>?O</b> Ad Hoc	🖷 By Job	🦉 Data	<mark>∏</mark> ∳ Exit							
Criteria	🛃 Apply	E Retrieve	Id First	d Prior	) Next	► <b>I</b> Last	2 Delete		🐼 🔗 Insert Updal			2
Mainta	ain Cont	act Informa	ation									x
2	Id	62										
Las	t Name	Sterling				Add a	contact		Delete a c	ontact	Save changes	
Firs	t Name	Charles						4	Last Name	First Name	Job Role	*
Jo	ob Role	Sales					1		Hildebrand	Jane	Marketing	
	Street	35 Wach	usett St	reet			2	5	Simmon	Larry	Sales	=
	Ciby	Lincoln					3	C	Critch	Susan	Product developme	
							4	L	.ambert	Terry	Administration	
	State	MA					5	8	Gullivan	Dorothy	Customer support	
	Zip	01742					6		Paull	Rose	Finance	
	Phone	(508) 55	5-2834				7		Glassmann		Product developme	
							8		Powell Fish	Gene	Training	
	Fax	(508) 55	5-3932				9		-isn Clarke	Jeffrey Molly	Marketing Sales	
							11		Kellev	William	Documentation	
							12		.yman	Thomas	Customer support	
											a second a second	*

4. Click the Save changes button in the form.

Your new contact goes into the database. You will see it shortly.

Next you want to display information on the contact with Id 37 so that you can make a correction.

#### About updating the database and canceling changes

You can click the Update button to update the database immediately; or you can wait until you close the form, and InfoMaker prompts you then to see if you want to update the database.

The Cancel Changes menu item on the Rows menu cancels any changes you have made since the last time you clicked Update.

- 5. Click the Criteria button to display a blank form for setting retrieval criteria.
- 6. Type 37 in the Id box.



This sets the retrieval criteria.

Id: 37					_
Last Name:	Add a contact	Delete a	contact	Save changes	5
First Name:	Id	Last Name	First Name	Job Role	
Job Role:	1	Hildebrand	Jane	Marketing	
Street:	2	Simmon	Larry	Sales	Ξ
Cit.u	3	Critch	Susan	Product developme	
City:	4	Lambert	Terry	Administration	
State:	5	Sullivan	Dorothy	Customer support	
Zip:	6	Paull	Rose	Finance	
•	7	Glassmann	Beth	Product developme	
Phone:	8	Powell	Gene	Training	
Fax:	9	Fish	Jeffrey	Marketing	
	10	Clarke	Molly	Sales	
	11	Kelley	William	Documentation	
	12	Lyman	Thomas	Customer support	

7. Click the Apply



This applies the retrieval criteria. InfoMaker retrieves the row with the Id 37.

Id: <u>37</u>						_
Last Name: Purcell	Add a conta	ontact	Save changes			
First Name: Beth		ld	Last Name	First Name	Job Role	
Job Role: Sales		1	Hildebrand	Jane	Marketing	1
Street: 134 Cherry Hill St.		2	Simmon	Larry	Sales	Ξ
City: Arlington		3	Critch	Susan	Product developme	3
City: Anington		4	Lambert	Terry	Administration	
State: MA		5	Sullivan	Dorothy	Customer support	
<b>Zip:</b> 02174		6	Paul	Rose	Finance	
•		7	Glassmann	Beth	Product developme	è.
Phone: (617) 555-2349		8	Powell	Gene	Training	
Fax: (617) 555-1765		9	Fish	Jeffrey	Marketing	
		10	Clarke	Molly	Sales	
		11	Kelley	William	Documentation	
		12	Lyman	Thomas	Customer support	

8. Change the Street to 134 Cherry St.

Click the Save changes button in the form.

Your changes are added immediately to the database.

#### 9. Click the Next



A message box displays because you have set criteria that allow only row 37 to be retrieved. You need to remove the criteria or specify other criteria.



10.Click OK to close the message box.

Click the Criteria button.

Select 37 and press the delete key to delete 37 from the Id box.

11.Click the Apply button.





Now you have no criteria, so InfoMaker retrieves all rows.

12.Select File>Close from the menu bar.

Your form closes.

#### 9.1.5 Use the By Job button

Where you are

Create the application

Create a shortcut to the application

Start the application

Use the Data button

#### > <u>Use the By Job button</u>

#### Use the Ad Hoc button

Now you run a report of all contacts grouped by job role.

1. Click the By Job button.

The report that lists all contacts grouped by job role displays.

💼 Forms	📳 Reports	<b>?</b> O Ad Hoc	🖷 Ву Јођ	💆 Data	<mark>∏</mark> ∳ Exit				
<b>()</b> Retrieve	Id First	<b>4</b> Prior	) Next	<b>Þ</b> i Last	🕒 Print	<b>∏</b> ∳ Close			
Rep	port - contac	ts_by_job	orole						2
	2017	/6/2	6			My Cont	tacts		
			Last	Name		First Name	Phone	Fax	
A	dministrat	ion							
			Brier			Michael	(617) 555-2398	(617) 555-3337	
			Collin	IS		MaryBeth	(617) 555-1199	(617) 555-9586	
			Lam	bert		Terry	(617) 555-2246	(617) 555-3692	
			Rom	eo		John	(310) 555-4533	(310) 555-1233	
c	ustomer s	upport							

2. Scroll the report to see your new contact.

When you have finished, select File>Close from the menu bar.

Once again you return to the main application window.

## 9.1.6 Use the Ad Hoc button

Where you are

Create the application

Create a shortcut to the application

Start the application

Use the Data button

Use the By Job button

> Use the Ad Hoc button

Now you use the Ad Hoc button to run several different reports based on the criteria you specify.

#### 1. Click the Ad Hoc button.

The Specify Retrieval Criteria dialog box displays. This dialog box displays because you selected Prompt For Criteria for this report. Whenever you run this report, you are first prompted for criteria.

Contact	ts										23
File Obj	ects V	Vindow H	elp								
Forms	😐 Reports	20 Ad Hoc	🖶 By Job	Q. Data	<b>∏</b> ∳ Exit		1				
Cancel	Id First	d Prior	► Next	► <b>I</b> Last	눹 Print	<b>∏</b> ∳ Close					
Sp	ecify Re	etrieval Crite	eria					×			
	Column: Criteria: Or:		III	t_name		t_name	title	OK Cancel			23
Hit Cancel to	o stop re	etrieval.									

#### 2. Click OK.

Because you did not specify any criteria, the report retrieves all your contacts.

ile	Display Row	vs Window	v Help								
For		<b>20</b> Ad Hoc I	🖷 By Job	🦉 Data	<mark>∏</mark> ∳ Exit						
Retri		Prior	► Next	▶ <b>0</b> Last	Print 2	<b>∏</b> ∳ Close					
Retri	ieve First	Prior	Next	Last	Print	Close					
20 R	Report - contac	tgrid_with_	promptin	g							
Id	Last Name	First Name	Jo	b Role		Street	City	State	Zip	Phone	F
	Hildebrand	Jane	Marketing	1	128	0 Washingtor	St. Emervville	MI	94608	(510)555-1309	(510)558
2	Simmon	Larry	Sales		34 (	Granville St.	Houston	TX	77079	(713)555-8960	
3	Critch	Susan	Product of	levelopment	45 0	Center St.	Danvers	MA	01923	(508)555-4829	(508)558
Ļ	Lambert	Terry	Administr	ation	204	Page St.	Canton	MA	94608	(617)555-2246	(617)555
5	Sullivan	Dorothy	Customer	support	54 N	/inuteman Di	. Lincoln	MA	01742	(508)555-3925	(508)555
5	Paul	Rose	Finance		78 E	Bay St.	Marblehea	ad MA	01945	(617)555-6392	(617)558
7	Glassmann	Beth	Product of	levelopment	44 (	Dak St.	Lexington	MA	02173	(617)555-0273	(617)558
3	Powell	Gene	Training		552	West Main S	t. Lexington	MA	02173	(617)555-3528	(617)558
)	Fish	Jeffrey	Marketing	1	68 F	Red Acre Rd.	Lexington	MA	02173	(617)555-3528	(617)558
10	Clarke	Molly	Sales		55 F	ine Grove R	d. Lexington	MA	02173	(617)555-4325	(617)558
11	Kelley	William	Documer	tation	16 F	Rainbow Rd.	Burlington	MA	01803	(617)555-8474	(617)555
2	Lyman	Thomas	Customer	support	64 8	Story Rd.	Emeryville	CA	94608	(510)555-5378	(510)558
13	Davidson	Joann	Marketing		64 3	Story Rd.	Emeryville	CA	94608	(510)555-7363	(510)558
14	Pettengill	Mark	Sales		26 E	Briarwood Te	r. Emeryville	CA	94608	(510)555-3533	(510)558
15	Moore	Dawn	Sales		One	Park Drive	Atlanta	GA	30339	(404)555-4834	(404)555
6	Lencki	John	Customer	support	208	Brook Road	Burlington	MA	01803	(617)555-5348	(617)558
17	Kaplan	Burt	Sales		49 H	(eaton Lane	Arlington	MA	02174	(617)555-3887	(617)558

3. Select Rows>Retrieve from the menu bar.

The Specify Retrieval Criteria dialog box displays again. This time you enter criteria.

4. Go to the title column.

Select Documentation from the drop-down list.

Click OK.

Specify Re	trieval Criteria				
Column:	first_name	title 🤄	street		ОК
Criteria:		Documentation		=	
Or:					Cancel
		m		P	

You have specified that the report is to list only contacts who have jobs in documentation.

	Documentation Documentation Documentation	16 Rainbow Rd. 1112 Center St.	Burlington	MA	01803	(617) \$55-8474	(617)558
		1112 Center St.	A Frankrike				(011)000
Coleman	Documentation		Arlington	MA	02174	(617)555-6699	(617)558
	Documentation	78 Dunster Pl.	Schaumburg	IL	60173	(706)555-2886	(704)558

5. Click the Retrieve button.

The Specify Retrieval Criteria dialog box displays again. Notice that the criterion in the title column is still in effect. To specify different criteria, you are now going to delete Documentation. Then you enter new criteria.

Specify R	etrieval Cri	teria				x
Column:	_name	title	₽ street		*	ОК
Criteria:		Document	ation 👻		=	
Or:						Cancel
					_	
	•			- F	÷.	

6. Select the Documentation entry in the title column.

Press delete.

This deletes criteria from the title column. Now you are going to enter new criteria.

7. Click in the first box underneath last\_name.

Type like "c%".

Click OK.

Column:	id	last_name	first_name	title	*	ОК
Criteria:		like "c%"			Ξ	
Or:						Cancel

This entry (like "c%") helps you find a name you cannot remember. All you can remember is that it starts with C.

The like operator specifies that only rows that match what follows should be retrieved. The quotes are required. The c means that the first character must be C. The % sign means any characters can follow the C.

This is the report.

ld	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	F
	Critch	Susan	Product development	45 Center St.	Danvers	MA	01923	(508)555-4829	(508)55{
0	Clarke	Molly	Sales	55 Pine Grove Rd.	Lexington	MA	02173	(617)555-4325	(617)558
9	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)555-3378	(617)558
1	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30339	(404)555-2239	(404)55{
3	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883	(617)558
4	Crowley	Charles	Human resources	69 Edson St.	Burlington	MA	01803	(617)555-1344	(617)558
6	Caruso	William	Finance	99 Edison St.	Bedford	MA	01730	(617)555-2144	(617)558
6	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)555-0004	(617)558
0	Collins	MaryBeth	Administration	56 Lincoln Street	Burlington	MA	01803	(617)555-1199	(617)558

8. Click the Retrieve button.

The Specify Retrieval Criteria dialog box displays again. The requirement that the last name begin with C is still in effect. Now you add an additional requirement. The report is to list contacts whose last names begin with C and who are from Burlington.

9. Use the scroll bar to display the city column.

Click in the first box underneath city and type Burlington.

Click OK.

Column:	city	state	* *	OK
Criteria:	Burlington			
Or:				Cancel

Now the report has only contacts whose last names begin with C and who are from Burlington.

ld	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	F
)	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)555-3378	(617)558
	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883	(617)558
Ļ	Crowley	Charles	Human resources	69 Edson St.	Burlington	MA	01803	(617)555-1344	(617)558
5	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)555-0004	(617)558
)	Collins	MaryBeth	Administration	56 Lincoln Street	Burlington	MA	01803	(617)555-1199	(617)558

10.Click the Retrieve button.

The Specify Retrieval Criteria dialog box displays again. The requirements that the last name begin with C and that the city be Burlington are still in effect.

Now you change the city requirement slightly. The report is to list contacts whose last names begin with C or who are from Atlanta. To be listed, contacts have to meet either requirement; they do not have to meet both.

11.Use the scroll bar to display the city column.

Select Burlington and press delete to delete Burlington.

Specify R	etrieval Criteria				×
Column:	street	city	state	*	ОК
Criteria:		Burlington			
Or:					Cancel
					2
	•	i III i		F	

12.Press the down arrow key to move down one row.

Type Atlanta.

Click OK.

By specifying criteria in two different rows in the dialog box, you are specifying that the report should retrieve rows from the database that meet the first row of criteria or the second row of criteria.

Specify Retrieval Criteri	a		×
Column: eet	city	state	^ ОК
Criteria:			
Or:	Atlanta		Cancel
			-
•	III	+	
	\	2	

Your report retrieves all contacts whose names begin with C. It also retrieves all contacts who are from Atlanta. It is hard to look at the two sets of rows, so now you sort by city. Then all the Atlanta rows will be together.

ld	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	F
3	Critch	Susan	Product development	45 Center St.	Danvers	MA	01923	(508)555-4829	(508)558
10	Clarke	Molly	Sales	55 Pine Grove Rd.	Lexington	MA	02173	(617)555-4325	(617)558
15	Moore	Dawn	Sales	One Park Drive	Atlanta	GA	30339	(404)555-4834	(404)558
19	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)555-3378	(617)558
21	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30339	(404)555-2239	(404)558
23	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883	(617)558
27	Evans	Carrie	Sales	89 Washington St.	Atlanta	GA	30339	(404)555-1169	(404)558
34	Crowley	Charles	Human resources	69 Edson St.	Burlington	MA	01803	(617)555-1344	(617)558
36	Caruso	William	Finance	99 Edison St.	Bedford	MA	01730	(617)555-2144	(617)558
46	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)555-0004	(617)558
50	Shishov	Irina	Marketing	567 Park Drive	Atlanta	GA	30339	(404)555-1233	(404)558
59	Masalsky	Kurt	Customer support	29 Garden St.	Atlanta	GA	30339	(404)555-5111	(404)558
60	Collins	MaryBeth	Administration	56 Lincoln Street	Burlington	MA	01803	(617)555-1199	(617)558

13.Select Rows>Sort from the menu bar.

The Specify Sort Columns dialog box displays.

Specify Sort Columns			×
<ol> <li>Drag and Drop items.</li> <li>Double-click column to edit</li> </ol>	expre	· ·	ОК
Source Data id last_name first_name title street city state zip phone		Columns Ascending	Cancel

14.Drag the Id column out of the Columns box and the city column into the Columns box.

Click OK.

Specify Sort Columns			x
<ol> <li>Drag and Drop items.</li> <li>Double-click column to edit</li> </ol>	expre	sion.	ОК
Source Data		Columns Ascending	Cancel
id		city 🛛	
last_name			
first_name	_		
title	_		
street	Ξ		
city	_		
state			
zip	_		
phone			
	Ŧ		

InfoMaker sorts the rows by city. Now you can see the Atlanta contacts first. These are followed by contacts whose names begin with C.

	Last Name	First Name	Job Role	Street	City	State	Zip	Phone	F
5	Moore	Dawn	Sales	One Park Drive	Atlanta	GA	30339	(404)555-4834	(404)558
7	Evans	Carrie	Sales	89 Washington St.	Atlanta	GA	30339	(404)555-1169	(404)558
1	Cobb	Paul	Customer support	34 Greenville St.	Atlanta	GA	30339	(404)555-2239	(404)558
9	Masalsky	Kurt	Customer support	29 Garden St.	Atlanta	GA	30339	(404)555-5111	(404)558
0	Shishov	Irina	Marketing	567 Park Drive	Atlanta	GA	30339	(404)555-1233	(404)558
6	Caruso	William	Finance	99 Edison St.	Bedford	MA	01730	(617)555-2144	(617)558
0	Collins	MaryBeth	Administration	56 Lincoln Street	Burlington	MA	01803	(617)555-1199	(617)558
4	Crowley	Charles	Human resources	69 Edson St.	Burlington	MA	01803	(617)555-1344	(617)558
6	Crossland	Ellen	Product development	27 Rush Rd.	Burlington	MA	01803	(617)555-0004	(617)558
9	Chin	David	Product development	16 Waverly Rd.	Burlington	MA	01803	(617)555-3378	(617)558
3	Cohen	Paul	Customer support	108 Park Street	Burlington	MA	01803	(617)555-8883	(617)558
	Critch	Susan	Product development	45 Center St.	Danvers	MA	01923	(508)555-4829	(508)558
0	Clarke	Molly	Sales	55 Pine Grove Rd.	Lexington	MA	02173	(617)555-4325	(617)558

Now you are finished using this report and using the application.

15.Click the Exit button.

This closes the report and the application.

Congratulations.

Now you have done it all. You have created data, maintained it, and reported on it. And you have put all your work together into your own application. See the next page for some suggestions on what to do next.

# 9.2 What to do next

You might be ready to make your own InfoMaker application or you might be interested in learning more by using the sample library, tutor\_im.pbl. Here are some ideas.

#### Personalize the contact data

Delete all the data in the contact table and add your own. You can run your Contacts application to do this. Use the form to delete and add data.

#### Look at other sample forms and reports

In the Environment tutorial, you accessed a few of the sample forms and reports delivered with InfoMaker. Now you can go back and look at more. The samples are located in tutor\_im.pbl. When you look, notice both the design version and the results you get when you run a form or report.

#### Use the sample pipeline

The sample library includes a sample pipeline. Pipelines let you move data structures and data within and between databases. Open the library and double-click the pipeline. This takes you to the Data Pipeline painter. The sample pipeline creates a copy of the employee table in the Demo Database. To create the copy, you execute the pipeline.

#### **Change sample forms and reports**

If you want to try some changes with samples, open the form or report and use Save As on the File menu. With Save As, you create a copy of the form or report and save it with a new name. Then you can make changes without affecting the original.

#### Create other forms and reports using the Demo Database

Once you have looked at the sample forms and reports, try creating some on your own. The Demo Database has several tables that you can use. You might want to start with the contact table since you are familiar with it. Use the other InfoMaker documentation and online Help as you work.

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