




Inventory for Arcadia Arts

Arcadia Arts distributes hand-crafted items to gift shops and specialty stores. For this project, you **Set Up the Tables**, **Create Forms**, **Create Queries**, and then **Format and Print an Order Report**. The order report is shown in FIGURE 6-14 on page 147.

Set Up the Tables

You set up two tables: the Organizations table with records for the organizations that supply items and the Products table with records for 15 products.

STEPS

1. Start Access, click Blank desktop database, type PR 6-Arcadia Arts Inventory in the File Name text box, click the Browse button , navigate to the location where you save the files for this book, click OK, then click Create
2. Click the View button in the Views group to switch to Design view, type Arcadia Arts Organizations as the table name, then click OK
3. Type Organization ID, press [↓] to move the insertion point to the line below Organization ID, type Organization Name, press [↓], type Email Address, press [Tab], click the Data Type list arrow, click Hyperlink, click the Close 'Arcadia Arts Organizations' button , then click Yes to save the table
4. Click the Create tab, click Table in the Tables group, click the Home tab, click the View button to switch to Design view, type Arcadia Arts Products as the table name, press [Enter], type Product ID, press [↓], then enter the remaining field names as shown in FIGURE 6-1
5. Click the Region Data Type list arrow, click Lookup Wizard, click the "I will type in the values that I want." option button, click Next, press [Tab], type Central America, press [Tab], enter the remaining regions as shown in FIGURE 6-2, click Next, then click Finish
6. Click the Category Data Type list arrow, repeat Step 5 to enter the categories as shown in FIGURE 6-3, click Next, then click Finish
7. Click the Organization Name Data Type list arrow, click Lookup Wizard, click Next to accept that you want the values to come from an existing table, verify that Table: Arcadia Arts Organizations is selected, click Next, click Organization Name in the list of available fields, click the Select Single Field button , click Next, click Next, click Next, click Finish, then click Yes
When you use the Lookup Wizard to create a relationship, Access automatically uses the Primary Key field (Organization ID) from the "one" table and changes the data type for the related field in the "many" table from Text to Number.
8. Click the Units in Stock Data Type list arrow, click Number, click the Unit Price Data Type list arrow, then click Currency
9. Close and save the table, click the Database Tools tab, click Relationships in the Relationships group, double-click the line between the two tables, click the Enforce Referential Integrity check box to select it, click OK, compare the Relationships window to FIGURE 6-4, then close the Relationships window

You enforce referential integrity so you can enter only the names of Organizations listed in the Organizations table into the Products table. An error message appears if you enter an organization name into the Products table that is not included in the Organizations table.

HINT

If you were setting up an Organizations table for a real business, you would also include the address, phone number(s), and website address of each organization.

TROUBLE

If a warning message appears when you click the Lookup Wizard, click Open.

HINT

The Organizations table is the "one" table and the Products table is the "many" table, which means one organization can supply many products.

FIGURE 6-1: Fields for Arcadia Arts Products table in Design view

Field Name	Data Type
Product ID	AutoNumber
Product Name	Short Text
Region	Short Text
Category	Short Text
Organization Name	Short Text
Units in Stock	Short Text
Unit Price	Short Text

FIGURE 6-2: Values for the Region field

Lookup Wizard

What values do you want to see in your lookup field? Enter the number of columns you want in the list, and then type the values you want in each cell.

To adjust the width of a column, drag its right edge to the width you want, or double-click the right edge of the column heading to get the best fit.

Number of columns: 1

Col1
Central America
Africa
Southeast Asia
India
*

Cancel < Back Next >

FIGURE 6-3: Values for the Category field

Lookup Wizard

What values do you want to see in your lookup field? Enter the number of columns you want in the list, and then type the values you want in each cell.

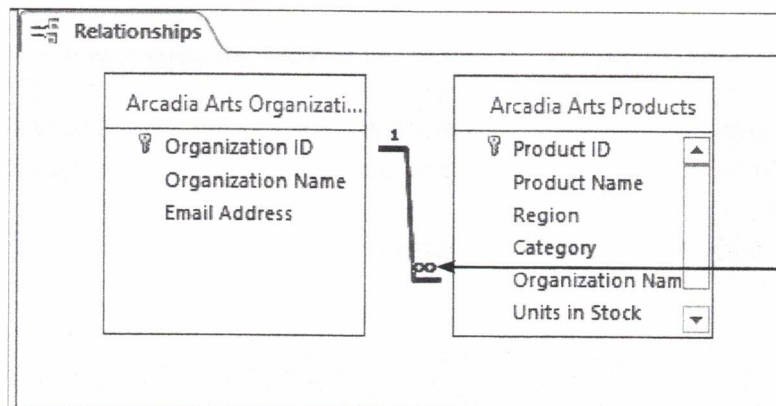
To adjust the width of a column, drag its right edge to the width you want, or double-click the right edge of the column heading to get the best fit.

Number of columns: 1

Col1
Household
Jewelry
Art
Instrument
*

Cancel < Back Next > Finish

FIGURE 6-4: One-to-Many relationship



Infinity sign represents the "many": One Organization (Organization ID) can supply many products



Create Forms

You need to create forms into which you can enter the data for the Arcadia Arts Organizations table and the Arcadia Arts Products table.

STEPS

HINT

Move the pointer over each theme to read the ScreenTip. The themes are in alphabetical order.

1. Click Arcadia Arts Organizations in the list of tables, click the Create tab, click Form in the Forms group, click the Themes button in the Themes group, then click Wisp
 You have related the Organizations and Products tables in a one-to-many relationship. As a result, the form for the Organizations table appears on top and a subform for the Products table appears below. You can enter records for many products in this subform because one organization can supply many products.
2. Click the View button in the Views group to switch to Form view, press [Tab], type Reaching Out, press [Tab], then type sales@reachingout.com
3. Double-click column dividers in the Product datasheet so all the field names are visible, click the blank cell below Product Name, type Ceramic Bowl, press [Tab], type a to show Africa, press [Tab], type h to show household, press [Tab], type 15, press [Tab], type 150, then press [Enter]
 A new record is inserted. Notice how you can minimize typing time when you create lookup fields for as many of the fields as possible.
4. Enter data for four more products as shown in FIGURE 6-5, adjusting column widths as needed
5. Click the New (blank) record button  at the bottom of the form window (not the bottom of the Arcadia Arts Products subform) to show a new blank form for a new organization, click in the Organization Name text box, type Helping Circles, then enter sales@helpingcircles.com as the Email Address
6. Enter the four products shown in FIGURE 6-6 into the subform
7. Create another new blank form and enter Sustainable World with the address sales@sustainableworld.com, enter the six products shown in FIGURE 6-7, close the form, click Yes to save changes, then click OK to name the form
8. Double-click Arcadia Arts Organizations in the Tables section in the All Access Objects pane to view the three organizations, then double-click Arcadia Arts Products in the Tables section to view the fifteen products
 When you entered the data into forms, the data was also entered into the tables.
9. Click the Arcadia Arts Organizations tab to show the Organizations table, click the Expand button  next to Reaching Out to view the products associated with the Reaching Out organization, widen columns as needed, then compare the list to FIGURE 6-8
 The Expand button next to each organization name shows that each organization is the “one” in a “one-to-many” relationship.
10. Close both tables, saving if prompted

HINT

The Product ID is entered automatically by Access after you press [Enter] at the end of an entry.

FIGURE 6-5: Completed form for Reaching Out

Organization ID: 1
 Organization Name: Reaching Out
 Email Address: sales@reachingout.com

Product ID	Product Name	Region	Category	Units in Stock	Unit Price
1	Ceramic Bowl	Africa	Household	15	\$150.00
2	Opal Ring	Southeast Asia	Jewelry	8	\$55.00
3	Decorated Drum	Africa	Instrument	7	\$68.00
4	Hand Pipes	Central America	Instrument	25	\$80.00
5	Mayan Mask	Central America	Art	5	\$125.00
*	[New]			0	\$0.00

Record: 1 of 6

FIGURE 6-6: Products for Helping Circles

Product ID	Product Name	Region	Category	Units in Stock	Unit Price
6	Ebony Dinner Set	Africa	Household	5	\$80.00
7	Rhino Carving	Africa	Art	15	\$90.00
8	Jaguar Carving	Central America	Art	9	\$150.00
9	Bamboo Screen	Central America	Household	12	\$90.00
*	[New]			0	\$0.00

Number added automatically after each product is entered

FIGURE 6-7: Products for Sustainable World

Product ID	Product Name	Region	Category	Units in Stock	Unit Price
10	Wool Tapestry	Central America	Art	29	\$200.00
11	Turquoise Earrings	Central America	Jewelry	8	\$30.00
12	Topaz Pendant	Southeast Asia	Jewelry	7	\$300.00
13	Balinese Bells	Southeast Asia	Instrument	15	\$100.00
14	Teak Bowl	India	Household	18	\$12.00
15	Tiger Wall Hanging	India	Household	9	\$25.00
*	[New]			0	\$0.00

Record: 1 of 7

FIGURE 6-8: Products for Reaching Out

Organization: 1 Reaching Out, sales@reachingout.com

Product ID	Product Name	Region	Category	Units in Stock	Unit Price
1	Ceramic Bowl	Africa	Household	15	\$150.00
2	Opal Ring	Southeast Asia	Jewelry	8	\$55.00
3	Decorated Drum	Africa	Instrument	7	\$68.00
4	Hand Pipes	Central America	Instrument	25	\$80.00
5	Mayan Mask	Central America	Art	5	\$125.00
*	[New]			0	\$0.00

Organization: 2 Helping Circles, sales@helpingcircles.com
 Organization: 3 Sustainable World, sales@sustainableworld.com

Access 2016

Create Queries

You create a query to find out how many products you have from Africa in the Household category, and then you create a query to determine the number of products with fewer than 10 items in stock. Finally, you enter formulas in the Expression Builder to calculate how many units you need to order and the total cost.

STEPS

HINT

To select a different table, click the Tables/Queries list arrow to the right of the Tables/Queries list box, then click the name of the table you want to use for the query.

HINT

Use the column name and the row name to find the correct Criteria cell.

TROUBLE

Enter the formula exactly as written including spaces. If the formula returns an error, carefully check the formula in the Expression Builder.


1. Click the **Create** tab, click the **Query Wizard** button in the **Queries** group, then click **OK** to accept **Simple Query Wizard**
2. **Verify Table: Arcadia Arts Products** is the table shown in the **Tables/Queries** list box
You select the table that contains the fields you want to include in your query.
3. Click the **Select All Fields** button  to select all the fields in the **Available Fields** list box, click **Next**, click **Next** to accept a **Detail** query, select the contents of the text box, type **Africa Household** as the query name, click the "Modify the query design." option button, then click **Finish**
4. Click the **[Region] Criteria** cell (see FIGURE 6-9), type **Africa**, click the **[Category] Criteria** cell, type **Household** as shown in FIGURE 6-9, then click the **Run** button in the **Results** group
The query results show that two of the products from Africa are from the Household category—the Ceramic Bowl and the Ebony Dinner Set.
5. Click the **Close 'Africa Household'** button (upper-right corner of the datasheet), then click **Yes** to save the query
6. Click the **Create** tab, click the **Query Wizard** button in the **Queries** group, click **OK**, verify **Table: Arcadia Arts Products** is the table in the **Tables/Queries** list box, add all the fields, click **Next**, click **Next**, change the name to **Items to Order**, click the "Modify the query design." option button, then click **Finish**
7. Click the **[Units in Stock] Criteria** cell, type **<10**, then click the **Run** button in the **Results** group
The query results show a datasheet listing the 8 products currently with fewer than 10 units in stock.
8. Click the **View** button in the **Views** group, click in the blank cell to the right of **[Unit Price]** (you may need to scroll right), click **Builder** in the **Query Setup** group, type **Units to Order: (10-[Units in Stock])** to show the list of available field names as shown in FIGURE 6-10, double-click **[Units in Stock]**, type **)**, then click **OK**
You select fields in the Builder to minimize typing errors. In this formula, "Units to Order" is the field name and is followed by a colon. The formula is enclosed in parentheses: (10-[Units in Stock]), which means that the value in the Units in Stock field will be subtracted from 10 because you want to always have at least 10 items in stock. Note that the Units in Stock field is contained in square brackets in the formula. Any time you reference a field in a formula, you must enclose it in square brackets.
9. Click in the blank cell to the right of "Units to Order", click **Builder**, type **Total: [Units to Order]*[Unit Price]**, select the **Unit Price** field, verify that the formula is **Total: [Units to Order]*[Unit Price]**, click **OK**, then click the **Run** button
In this formula, "Total" is the name of the new field, and [Units to Order] and [Unit Price] both reference existing field names. The * symbol is the symbol used in all formulas for multiplication. This formula multiplies the value in the Units to Order field by the value in the Unit Price field.
10. Adjust the column widths as needed, compare the query to FIGURE 6-11, then close and save the query

FIGURE 6-9: Selecting Criteria

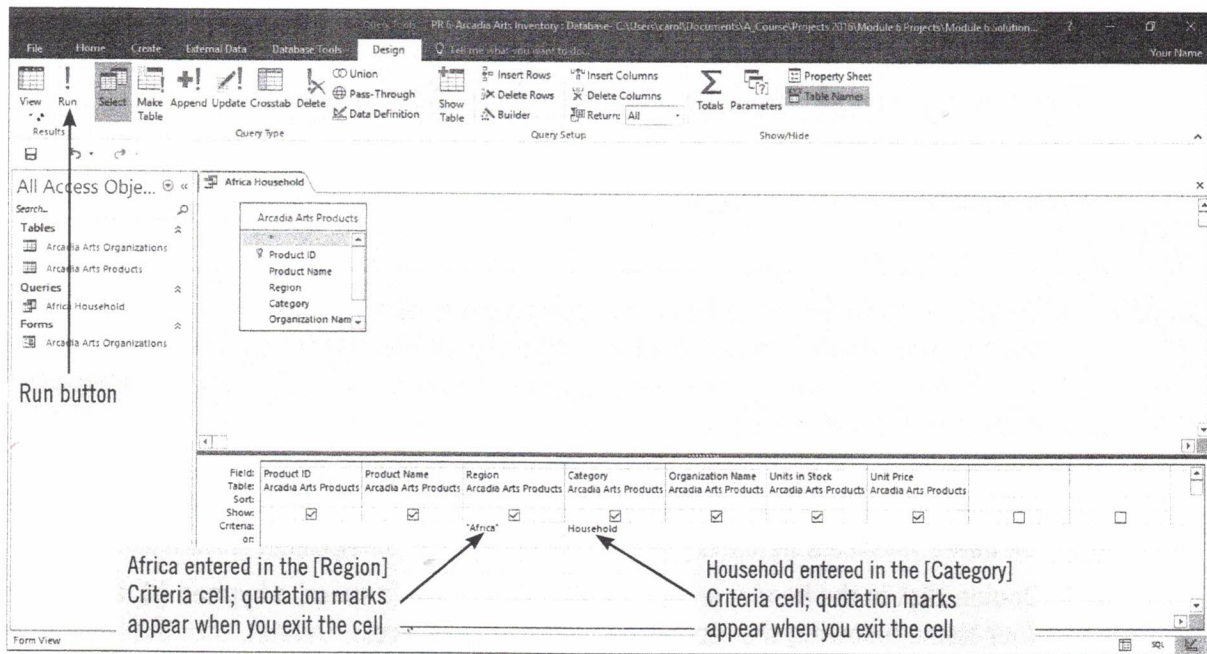


FIGURE 6-10: Formula in the Expression Builder

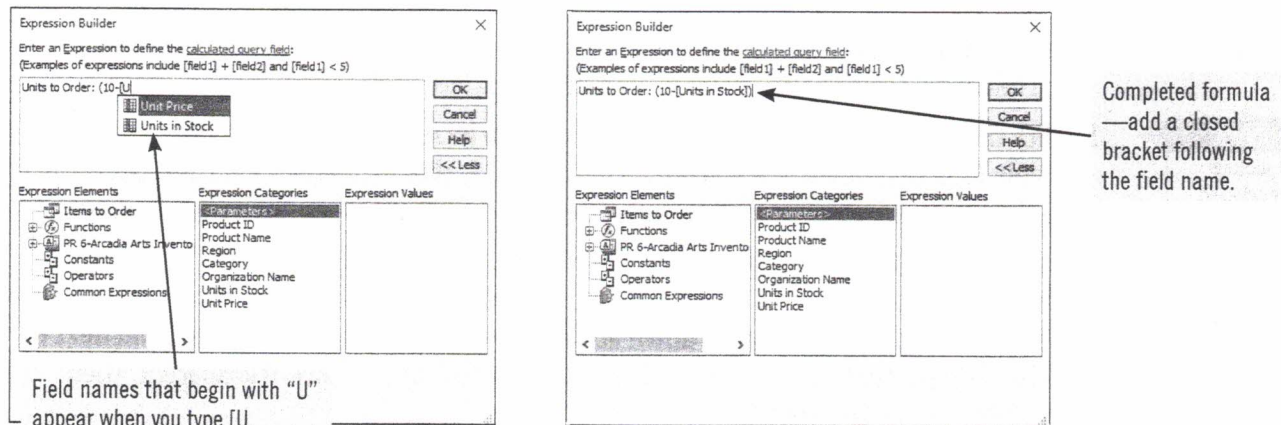
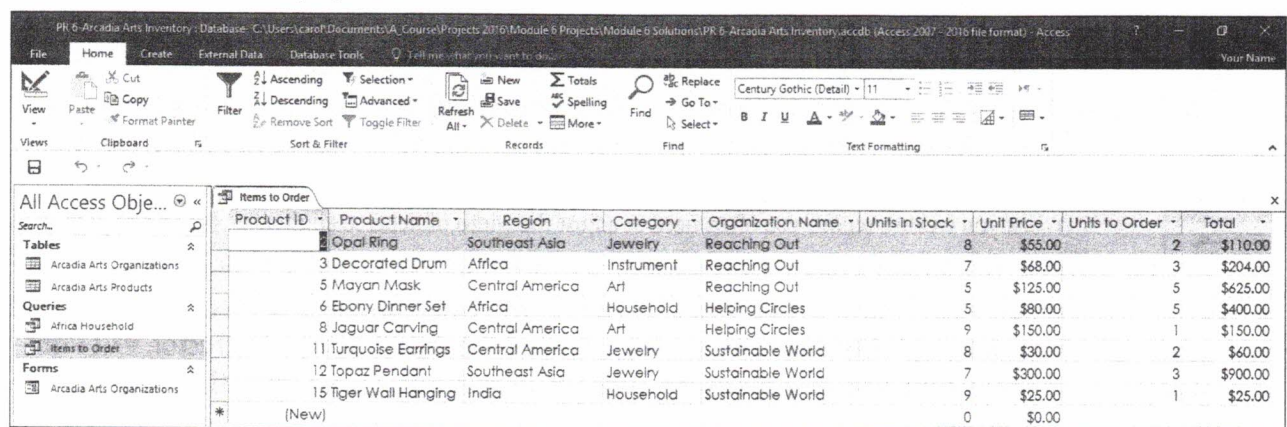


FIGURE 6-11: Datasheet view of query results



Format and Print an Order Report

You format and print an Order report generated from the Items to Order query. The completed report is shown in FIGURE 6-14.

STEPS

TROUBLE

To switch to Layout view, click the View list arrow in the Views group, then click Layout View.

1. Click **Items to Order** in the All Access Objects pane, click the **Create** tab, click the **Report** button in the **Reports** group, then switch to **Layout View** if that is not the active view
 A report based on the Items to Order query is generated. You want to show the products grouped under the appropriate organization name.
2. Click the **Group & Sort** button in the **Grouping & Totals** group if it is not already selected, click **Add a group below the report grid**, then click **Organization Name**
 The three organizations are moved to the first column and their corresponding products are indented.
3. Double-click in the header area, click after **Order**, add a space, a hyphen (-), a space and **Your Name** following the report title, click the date, press [Delete], click the time, then press [Delete]
4. Scroll right, click **\$625.00** in the **Total** column, click **Totals** in the **Grouping & Totals** group, click **Sum**, then scroll to view the subtotal under each group of products and the grand total
 You need to modify the height of the text boxes containing the totals and show them in Currency format.

HINT

All three subtotal boxes are selected when you select the first one.

5. Click the total below **\$110.00**, use your mouse to increase the height so the value is visible (939) as shown in FIGURE 6-12, right-click 939, click **Properties**, click the blank cell to the right of **Format** in the **Property Sheet**, click the list arrow, then click **Currency**
6. Scroll to view the grand total (2474), repeat Step 5 to modify the height and apply **Currency** formatting, click the text box to the left in the **Unit Price** column (contains \$833.00), press [Delete], scroll down again, click the empty text box, click **Solid** next to **Gridline Style Top** in the **Property Sheet**, click the list arrow, click **Transparent**, then close the **Property Sheet**
7. Scroll up and left, click **Product ID**, click the **Report Layout Tools Arrange** tab, click **Select Column**, then press the [Delete] key
 After you generate a report you can easily delete columns you do not want to include.
8. Click the **Report Layout Tools Page Setup** tab, click **Landscape** in the **Page Layout** group, then click **Reaching Out** (all the organization names are selected) and reduce the width of the text box to just fit the organization names and the "Organization Name" label
9. Double-click the **Units in Stock** field name box, select **Units in Stock**, delete it, type **Stock**, change "Units to Order" to **Order**, then as shown in FIGURE 6-13, reduce the width of each field so all eight fields fit on the page
 When you create a report, you often need to adjust the width of fields so all the data fits on the page.
10. Click the **Report Layout Tools Design** tab, click the **View** button list arrow in the **Views** group, click **Print Preview**, click **One Page** in the **Zoom** group, if necessary, compare the complete report to FIGURE 6-14, submit a copy of the report to your instructor, exit **Print Preview**, close and save the report with the default name, then close the database and exit **Access**

MORE PRACTICE

For more practice with the skills presented in this project, complete Independent Challenge 1.

FIGURE 6-12: Adjusting the height of a text box content control

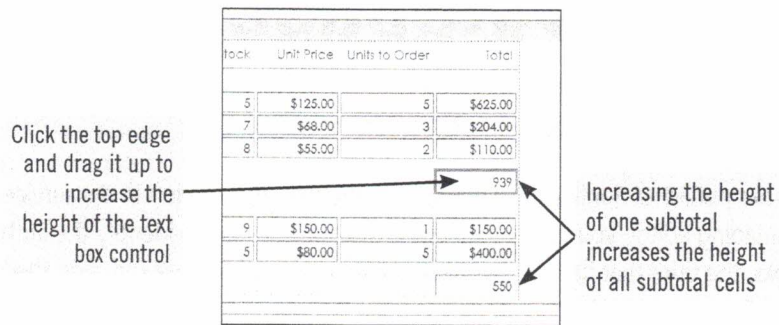


FIGURE 6-13: Column widths adjusted in Layout view

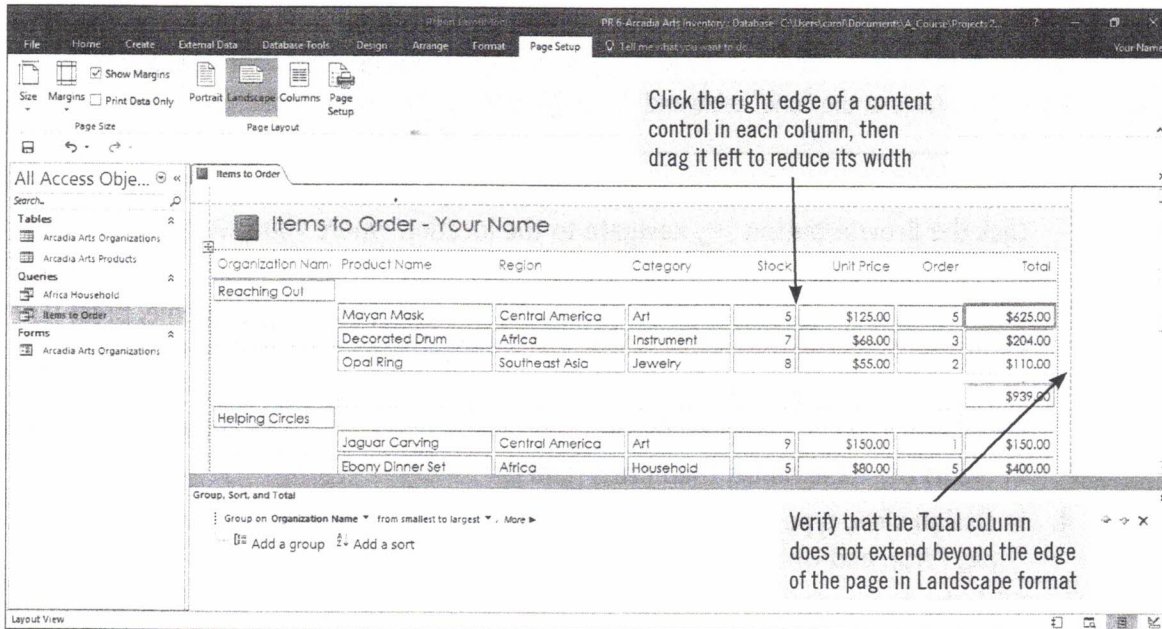


FIGURE 6-14: Completed report in Print Preview

Organization Name	Product Name	Region	Category	Stock	Unit Price	Order	Total
Reaching Out							
	Mayan Mask	Central America	Art	5	\$125.00	5	\$625.00
	Decorated Drum	Africa	Instrument	7	\$68.00	3	\$204.00
	Opal Ring	Southeast Asia	Jewelry	8	\$55.00	2	\$110.00
							\$939.00
Helping Circles							
	Jaguar Carving	Central America	Art	9	\$150.00	1	\$150.00
	Ebony Dinner Set	Africa	Household	5	\$80.00	5	\$400.00
							\$550.00
Sustainable World							
	Tiger Wall Hanging	India	Household	9	\$25.00	1	\$25.00
	Topaz Pendant	Southeast Asia	Jewelry	7	\$300.00	3	\$900.00
	Turquoise Earrings	Central America	Jewelry	8	\$30.00	2	\$60.00
							\$985.00
							\$2,474.00



Author Database for Action Books

Action Books publishes nonfiction books that inspire people to action in the service of their communities. As the managing editor, you set up a database that you can use to identify the authors who have sold the most books, the titles that have earned revenues in excess of \$150,000 during the last year, and the most popular topics purchased. For this project, you **Set Up the Tables, Enter Records and Create Queries**, and then **Create and Format a Report**. The completed report is shown in FIGURE 6-23 on page 153.

Set Up the Tables

You set up the Authors table and the Books table. Because one author can write many books, you set up the Authors table as the “one” table and the Books table as the “many” table.

STEPS

1. Start Access, click Blank desktop database, change the File Name to PR 6-Action Books, click the Browse button , navigate to the location where you save the files for this book, click OK, then click Create
2. Click the View button in the Views group, type Authors as the table name, press [Enter], enter the fields shown in FIGURE 6-15 in Design view, then close and save the table
3. Click the Create tab, click the Table button in the Tables group, click the Table Tools Fields tab if it is not already selected, click the View button in the Views group, type Books as the table name, then press [Enter]
4. In Design view, type the following fields: Book ID (to replace ID), Book Title, Author, Topic, Price, and Units Sold
5. Click the Author Data Type list arrow, click Lookup Wizard, click Open if prompted, click Next to accept that you want the values to come from an existing table, click Next to accept the Authors table, click Last Name in the list of available fields, click the Select Single Field button , click Next, click Next, click Finish, then click Yes
When you complete the Books table, the authors' last names will be available to you because you created a lookup table for the Author field that uses the Last Name field in the Authors table.
6. Click the Topic Data Type list arrow, click Lookup Wizard, click the “I will type in the values that I want.” option button, click Next, press [Tab], type Diversity, press [↓], enter the remaining categories as shown in FIGURE 6-16, click Next, then click Finish
7. Click the Price Data Type list arrow, click Currency, click the Units Sold Data type list arrow, then click Number
8. Close and save the table, click the Database Tools tab, click Relationships in the Relationships group, double-click the line between the two tables, click the Enforce Referential Integrity check box to select it, click OK, then compare the Relationships window to FIGURE 6-17

Notice that the relationship is set up between the Author ID field in the Authors table and the Author field in the Books table. The Author ID field is used because each last name has a unique Author ID. When you selected the Last Name field in the Lookup Wizard, Access automatically created the relationship between the Author ID field (a unique number) in the Author table and the Author field in the Books table.

9. Close the Relationships window, saving if prompted

HINT

You created a relationship between the Author table and the Books table because one author can write many books.

FIGURE 6-15: Fields for the Authors table

	Field Name	Data Type
Key	Author ID	AutoNumber
	Last Name	Short Text
	First Name	Short Text
	Location	Short Text

FIGURE 6-16: Values for the Topic field

Lookup Wizard

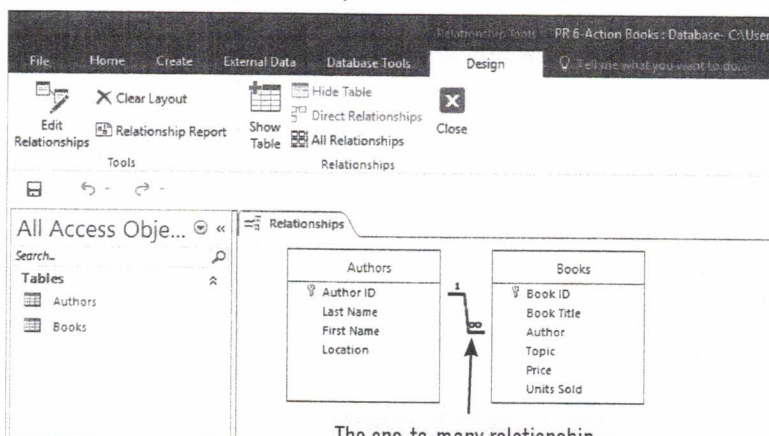
What values do you want to see in your lookup field? Enter the number of columns you want in the list, and then type the values you want in each cell.

To adjust the width of a column, drag its right edge to the width you want, or double-click the right edge of the column heading to get the best fit.

Number of columns:

Col1
Diversity
Environment
Globalization
Sustainability
*

FIGURE 6-17: One-to-Many relationship between author and books





The one-to-many relationship:
One Author (Author ID) can write many books

Enter Records and Create Queries

Your market researchers have found that readers want more titles on the Globalization and Sustainability topics, so you decide to create a query that shows how many titles on these topics you have in stock. You then modify this query to list only those authors who sold more than \$150,000 worth of books. Before you can create the query, you need to enter records for the Authors and Books tables.

STEPS

1. Open the Authors table, enter the records shown in FIGURE 6-18, adjust column widths as needed to fit content, then close and save the table
2. Open the Books table, click the Units Sold field, click the Table Tools Fields tab, click the Apply Comma Number Format button  in the Formatting group, then click the Decrease Decimals button  two times
3. Enter the records shown in FIGURE 6-19 and adjust column widths as needed, then close and save the table if prompted
4. Click the Create tab, click the Query Wizard button in the Queries group, click OK, select Table: Authors in the Tables/Queries list box, then add only the Location field to the Selected Fields list box
5. Click the Tables/Queries list arrow, click Table: Books, add all the fields except the Book ID field to the Selected Fields list box, click Next, click Next again, change the name of the query to Popular Topics, click the "Modify the query design." option button, then click Finish
6. Click the Topic Sort cell, click the Sort cell list arrow, click Ascending, then click the Run button

You can see at a glance that the two topics with the most available titles are Globalization and Sustainability.
7. Switch to Design view, click the blank cell to the right of Units Sold, click Builder in the Query Setup group, enter a formula that will designate "Total Sales" as the field name and multiply the Units Sold by the Price, then click OK
8. Click the [Topic] Criteria cell, type Globalization, click the [Total Sales] Criteria cell, type >150000, complete the criteria as shown in FIGURE 6-20, then run the query

Seven books match the criteria.
9. Close the Query Results window, then click Yes to save the modified query

HINT

Remember that you can save time by typing only the first letter or two to show the required record for the Author and Topic fields.

HINT

The required formula is Total Sales: [Units Sold]*[Price].

TROUBLE

If your query does not show seven results, recheck your Books table to be sure the entries match FIGURE 6-19, then check to be sure your query criteria matches FIGURE 6-20.

FIGURE 6-18: Records for the Authors table

Plus signs indicate the table is related

Author ID	Last Name	First Name	Location	Click to Add
1	Leblanc	Sam	Portland, OR	
2	Ramirez	Carlos	San Diego, CA	
3	Khalil	Amir	Los Angeles, CA	
4	Watson	Gail	Seattle, WA	
5	Prentiss	John	Toronto, ON	
6	Faraj	Leila	New York, NY	
7	Davis	Liam	Dublin, Ireland	
8	Leung	Grace	Boston, MA	
*	New			

FIGURE 6-19: Records for the Books table

Book ID	Book Title	Author	Topic	Price	Units Sold	Click to Add
1	Living Green	Leblanc	Environment	\$25.00	3,000	
2	The Earth's Way	Faraj	Sustainability	\$20.00	9,000	
3	Conservation Tips	Faraj	Sustainability	\$25.00	6,000	
4	Celebrate All	Prentiss	Diversity	\$15.00	7,000	
5	Community Living	Watson	Globalization	\$30.00	6,000	
6	Peace Now	Watson	Globalization	\$35.00	8,000	
7	Change Actions	Watson	Globalization	\$40.00	9,000	
8	Village Voices	Leung	Globalization	\$25.00	5,000	
9	Stretching Resources	Leblanc	Sustainability	\$40.00	6,000	
10	Raising Citizens	Davis	Globalization	\$25.00	2,000	
11	Thriving Together	Davis	Globalization	\$30.00	9,000	
12	Wise Earth	Leung	Globalization	\$35.00	8,000	
13	Staying Together	Ramirez	Sustainability	\$35.00	3,000	
14	Future Building	Khalil	Diversity	\$25.00	4,000	
15	Embracing Diversity	Prentiss	Diversity	\$20.00	3,000	
*	New			\$0.00	0	

FIGURE 6-20: Selecting criteria

Popular Topics

Field:	Location	Book Title	Author	Topic	Price	Units Sold	Total Sales: (Units Sold)
Table:	Authors	Books	Books	Books	Books	Books	(Units Sold)
Sort:				Ascending			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				"Globalization" "Sustainability"			>150000 >150000

Criteria for Topic and Total Sales

Add "or:" criteria as shown in this row

Create and Format a Report

You need to create a report and then format it to present to your colleagues at a meeting. Your finished report will look similar to the one shown in FIGURE 6-23.

STEPS

HINT

When you insert a picture into the Logo control, you usually need to change the Size Mode to Stretch so the entire picture is visible.

TROUBLE

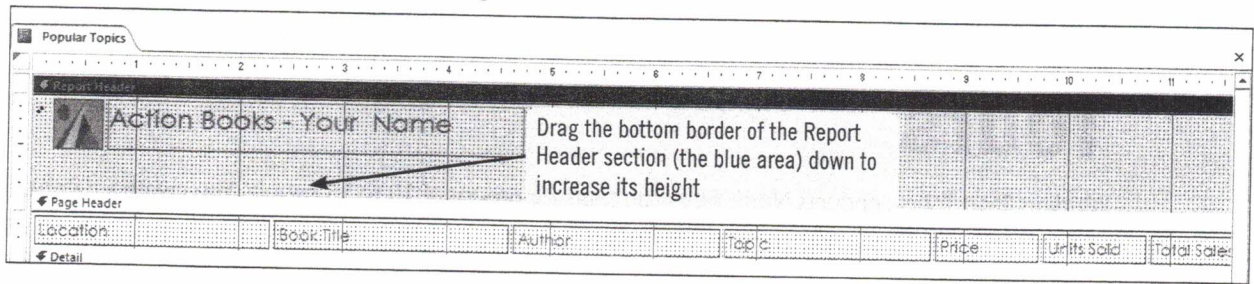
If Add a group is not available at the bottom of the window, click the Group & Sort button in the Grouping & Totals group.

MORE PRACTICE

For more practice with the skills presented in this project, complete Independent Challenge 2.

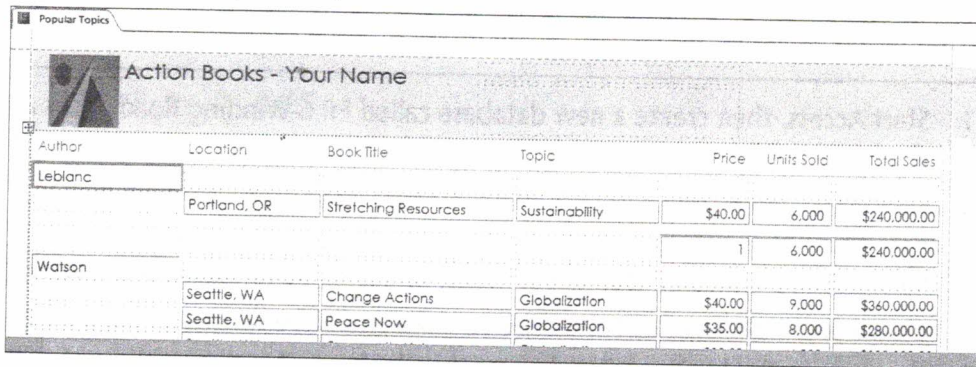
1. Verify that Popular Topics is selected in the list of queries, click the Create tab, click Report in the Reports group, apply the Slice theme, change the title of the report in the header area to Action Books - Your Name, then delete the date and time
2. Click the Logo button in the Header/ Footer group, navigate to the location where you store files for this book, double-click PR 6-01.jpg, click the Property Sheet button in the Tools group, click the Size Mode list arrow ("Clip" currently appears to the right of the Size Mode label), click Stretch to show the entire picture, then close the Property Sheet
3. Click the View list arrow in the Views group, click Design View, then as shown in FIGURE 6-21, drag the blue header area down to increase its height to approximately 1"
You work in Design view to change the size of report sections such as the Report Header and Detail sections.
4. Click the logo picture, then drag the lower-right size handle to increase the size of the logo to fit the height of the header area
5. Click the Report Design Tools Design tab, switch to Layout View, click Add a group at the bottom of the window, then click Author
The report records are grouped according to author so you can quickly see how many book titles belong to each author.
6. Click the Report Layout Tools Design tab, scroll to and click the Price label, click the Totals button in the Grouping & Totals group, click Count Records, click the Units Sold label, click the Totals button, click Sum, then click the Totals Sales label and sum the column
The report now includes the total number of books written by each author, the total number of books sold by each author, and the total sales for each author.
7. Increase the height of the box containing "1" in the Price column so the summed values are visible, right-click the total (240000), click Properties, click the text box next to "Format", click the Format list arrow, click Currency, scroll to the bottom of the report, change the format of the grand total (1790000) to Currency, close the Property Sheet, then adjust the height and width of boxes as needed to fit content
8. Click the Report Layout Tools Page Setup tab, click Landscape, then modify the column widths so the report fits on one page as shown in FIGURE 6-22
9. Close the report, click Yes, click OK, double-click Books in the All Access Objects pane to open the Books table, change the Units Sold for "Community Living" (the fifth record) to 12,000, close the Books table, double-click the Popular Topics report, then click Refresh All in the Records group
The total sales of Watson's books are now \$1,000,000.00.
10. Click the View list arrow, click Print Preview, click the Zoom list arrow in the Zoom group, click Fit to Window, compare the completed report to FIGURE 6-23, submit a copy of the report to your instructor, then close the database and exit Access

FIGURE 6-21: Adjusting the height of a section in Design view



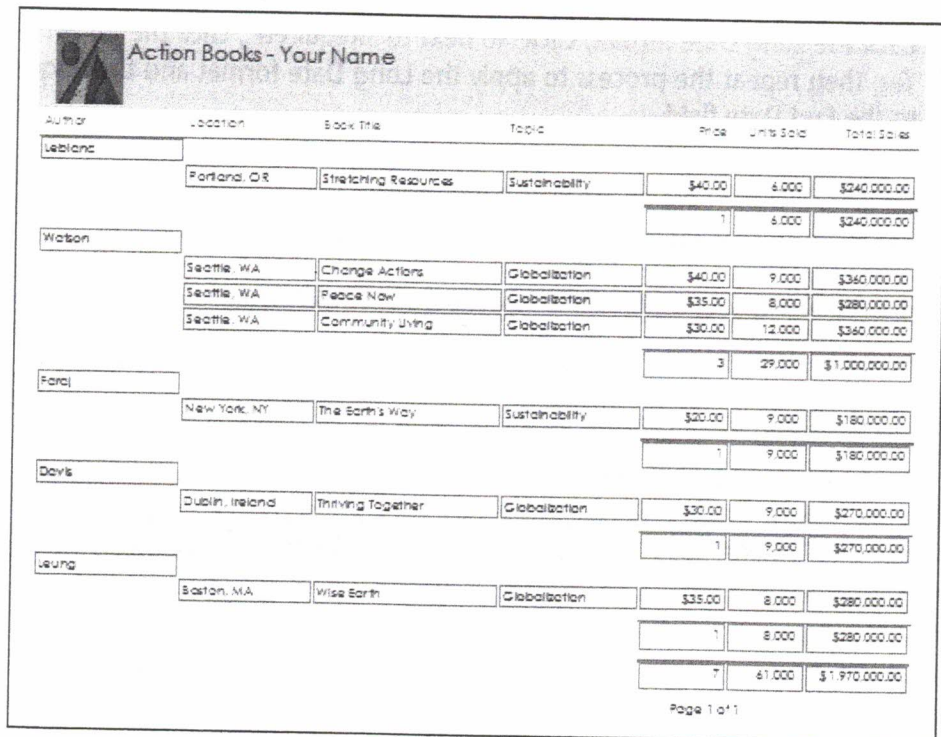
Art courtesy of Gregg Simpson

FIGURE 6-22: Columns adjusted in Layout view



Art courtesy of Gregg Simpson

FIGURE 6-23: Completed report in Print Preview



Art courtesy of Gregg Simpson

Access 2016

Database for Winding Road Tours

Winding Road Tours conducts North American tours for groups of 10 to 15 people. You create a database with information about each tour and then relate this table to a list of tour participants that you import from another database. For this project, you **Create the Tours Table**, and then you **Import the Tour Participants Table**. The completed reports are shown in FIGURES 6-28 and 6-29 on page 157.

Create the Tours Table

You create the Winding Road Tours database and then create the Tours table. The Tours table includes a field for pictures, which uses the Attachment data type.

STEPS



1. Start Access, then create a new database called PR 6-Winding Road Tours and save it to the location where you save the files for this book
2. Switch to Design view, save the table as Tours, then enter the field names and assign data types as shown in FIGURE 6-24
3. Right click Description, click Insert Rows, then type Category in the new blank cell
4. Press [Tab], click the Category Data Type list arrow, click Lookup Wizard, then follow the steps in the Lookup Wizard to create a lookup column consisting of three entries: City, Cultural, and Adventure
5. Click Date/Time next to "Start Date", click in the cell next to "Format" in the Field Properties area below the fields list, then click the list arrow as shown in FIGURE 6-25
You can modify a wide range of properties related to a field, including its format, rules for how an entry is validated, and even whether an entry is required.
6. Click the Long Date format, click No next to "Required", click the list arrow and click Yes, then repeat the process to apply the Long Date format and the Required option to the End Date field
7. Switch to Datasheet view and save the table when prompted, press [Tab], type Mountain Experience as the tour name, press [Tab] one time, click the Date button  to the right of the selected Start Date cell, select July 10, 2017, press [Tab], click , select July 14, 2017, press [Tab], select Adventure as the category, press [Tab], type Spectacular hiking and cycling in the Rockies, then widen columns as needed to fit the content
8. Double-click the cell in the Pictures column for record 1 to open the Attachments dialog box, click Add, navigate to the location where you store your Data Files, double-click PR 6-02.jpg, then click OK
9. Enter data for the remaining three records and add the required attachments (PR 6-03.jpg, PR 6-04.jpg, and PR 6-05.jpg) as shown in FIGURE 6-26, close the table, then answer Yes to save it if prompted

FIGURE 6-24: Field list for the Tours table

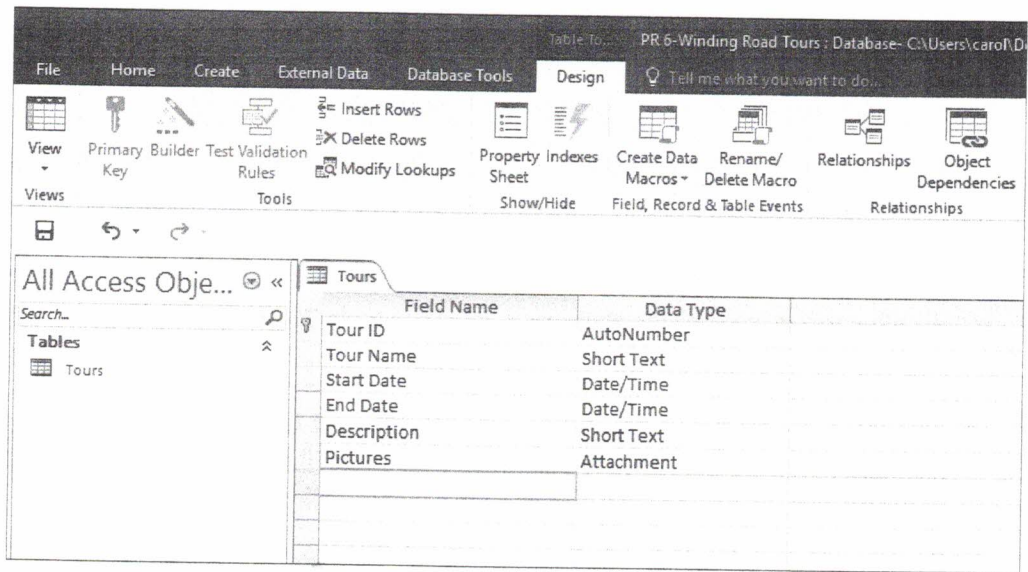


FIGURE 6-25: Changing the Date format

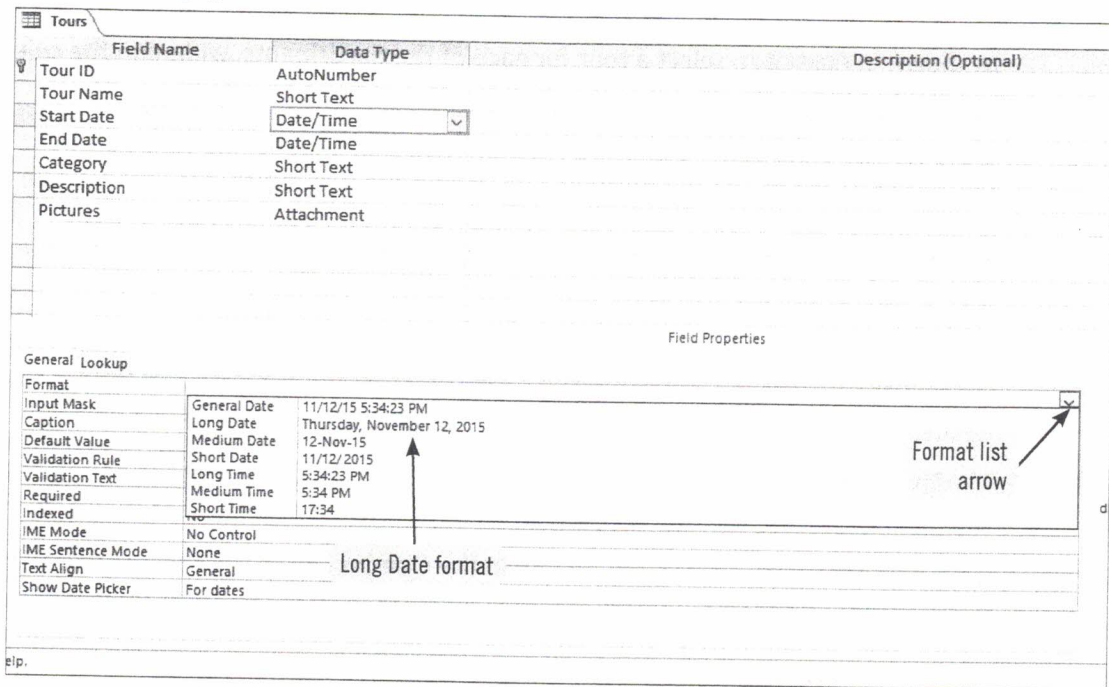


FIGURE 6-26: Records for the Tours table

Tour ID	Tour Name	Start Date	End Date	Category	Description
1	Mountain Experience	Monday, July 10, 2017	Friday, July 14, 2017	Adventure	Spectacular hiking and cycling in the Rockies
2	New York Bound	Tuesday, August 01, 2017	Saturday, August 05, 2017	City	Featuring city tours and four Broadway shows
3	Red Rock Adventure	Tuesday, July 11, 2017	Tuesday, July 18, 2017	Adventure	Backpacking adventure in Arizona and Utah
4	Garden Delights	Thursday, August 10, 2017	Tuesday, August 15, 2017	Cultural	Tour of special gardens in the Pacific Northwest
* (New)					

PR 6-03.jpg


PR 6-04.jpg

PR 6-05.jpg

Import the Tour Participants Table

You import the Tour Participants table from another database, then create a relationship between the Tours table and the imported table. The relationship will be a one-to-many relationship because one tour can host many participants. The Tours table is the “one” table and the Participants table is the “many” table. Finally, you create two reports. One report shows all the tours and includes the picture of each tour, and the other report shows all the participants according to the tour they are taking.

STEPS

1. Click the External Data tab, click Access in the Import & Link group, click Browse, navigate to the location where you store your Data Files, double-click PR 6-06.accdb, click OK, click Tour Participants in the list of tables, click OK, then click Close
2. Double-click Tour Participants to open it, click Click to Add at the top of the first blank column, click Lookup & Relationship, click Next to accept that the lookup field will come from another table, click Table: Tours, click Next, click Tour Name, then click the Select Single Field button 
3. Click Next, click Next, click Next, type Tour as the lookup field name, click Finish, then as shown in FIGURE 6-27, select a tour for each of the participants, widening the column as needed to fit the content
4. Close and save the table, click the Database Tools tab, click Relationships in the Relationships group, double-click the line joining the two tables, click the Enforce Referential Integrity check box, click OK, then close the Relationships window
 By enforcing referential integrity, you ensure that a user can enter only tour names in the Tour Participants table that also exist in the Tours table.
5. Click Tours, click the Create tab, click the Report button in the Reports group, apply the Organic theme, click Colors and select Green, then delete the date and time in the header
6. Modify the report title and adjust the column widths so all the data fits on the page as shown in FIGURE 6-28, then close and save the report with the default name (“Tours”)
7. Click the Create tab, click Query Wizard in the Queries group, click OK, create a query named Tours Query that includes the Tour Name field from the Tours table and the Last Name, First Name (in that order) and Country/Region fields from the Tour Participants table, finish the query, then close the query
8. Click Tours Query in the All Access Objects pane, click the Report button in the Reports group, apply the Organic theme and the Green color scheme, click the Group & Sort button in the Grouping & Totals group if it is not selected, click Add a group, click Tour Name, click Add a sort, then click Last Name
9. Modify the report so that it appears in Print Preview as shown in FIGURE 6-29, making sure the page number is to the left of the dotted line
10. Close and save the report as Tour Participants, submit copies of both reports to your instructor, then close the database

HINT

Be sure to move the page number text box so it is just to the left of the dotted line.

MORE PRACTICE

For more practice with the skills presented in this project, complete Independent Challenge 3.

FIGURE 6-27: Matching tours with participants

Press the first letter of each entry, then press the down arrow to quickly select the tour title and move to the next cell

ID	First Name	Last Name	Address	City	State/Provir	Code	Country/Reg	Tour
1	Annie	Leitz	1800 Elm Street	Vancouver	BC	V7H 1A7	Canada	Mountain Experience
2	Sally	Bate	18 Mountain Road	Littleton	CO	80122	United States	New York Bound
3	Aya	Grunwald	105 Independence Way	Boston	MA	02111	United States	New York Bound
4	Ronnie	Donwell	1200 Lake Street	Cincinnati	OH	45206	United States	Red Rock Adventure
5	Caroline	Dirkson	230 Seaview Place	Halifax	NS	B9A 1P3	Canada	Mountain Experience
6	Ellen	Graham	344 Cowan Road	Green Bay	WI	54311	United States	Garden Delights
7	George	Steinberg	122 West 40th Street	New York	NY	10010	United States	Garden Delights
8	Marika	Gresch	890 Glenaden Drive	Toronto	ON	M5W 1E6	Canada	Red Rock Adventure
9	Suzanne	Morales	67 Pacific Way	Santa Monica	CA	90405	United States	Mountain Experience
10	Jasjit	Singh	80 The Mews	London		SW1X 8PZ	United Kingdom	Mountain Experience
11	Antonla	Salvucci	Via Principe Amedeo 1	Roma		00187	Italy	Red Rock Adventure
12	Olivia	Jefferson	678 Rainier Road	Seattle	WA	98110	United States	Garden Delights
13	Lana	Tamblyn	34 Atlantic Street	Savannah	GA	31405	United States	Red Rock Adventure
14	Gerald	Fanning	230 Elm Road	Sacramento	CA	94822	United States	Mountain Experience
15	Maggie	Sellers	400 High Park Road	Toronto	ON	M5E 3R5	Canada	Mountain Experience

FIGURE 6-28: Tour report

FIGURE 6-29: Tour Participants report in Print Preview

Access 2016