

1 Tom & Erin's Bookstore



Tom and Erin Mullaney own and operate a bookstore in Philadelphia, Pennsylvania. Erin asked you to help her create an Access database because of your experience in this class. You believe that you can help her by creating a database and then importing the Excel spreadsheets they use to store the publishers and the books that they sell. You determine that a third table—for authors—is also required. Your task is to design and populate the three tables, set the table relationships, and enforce referential integrity. If you have problems, reread the detailed directions presented in the chapter. This exercise follows the same set of skills as used in Hands-On Exercises 1 and 2 in the chapter. Refer to Figure 2.54 as you complete this exercise.

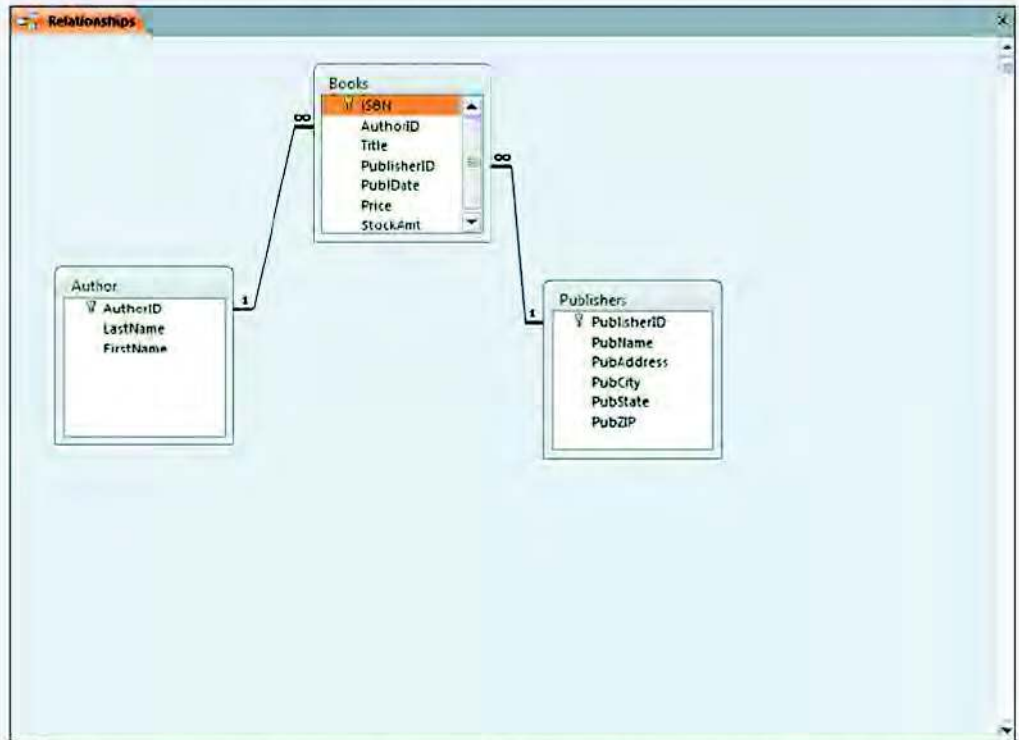


FIGURE 2.54 Access Relationships Window ▶

- Open Access, and then type **a01p1books_LastnameFirstname** in the **File Name box**. Click **Browse** to locate your Student Data Files folder in the File New Database dialog box, click **OK** to close the dialog box, and then click **Create** to create the new database.
- Type **11** in the **Click to Add column**, and then click **Click to Add**. The field name becomes *Field1*, and *Click to Add* now appears as the third column. Type **Wayne** and press **Tab**. The process repeats for the fourth column; type **John** and then press **Tab** twice.
- The cursor returns to the first column where (*New*) is selected. Press **Tab**. Type the rest of the data using the following table. This data will become the records of the Author table.

ID	Field1	Field2	Field3
1	11	Wayne	John
(New)	12	Allen	Keith
	13	Scott	Michael
	14	Carl	Richard
	15	Keen	Clara
	16	Swartz	Millie
	17	Allen	John

- d. Click **Save** on the Quick Access Toolbar. Type **Author** in the **Save As dialog box**, and then click **OK**.
- e. Click **View** in the Views group to switch to the Design view of the Author table.
- f. Select **Field1**—in the second row—in the top portion of the table design, and then type **AuthorID** to rename the field. In the *Field Properties* section in the lower portion of the table design, type **Author ID** in the **Caption property box**, and then verify that *Long Integer* appears for the Field Size property.
- g. Select **Field2**, and then type **LastName** to rename the field. In the *Field Properties* section in the bottom portion of the table design, type **Author's Last Name** in the **Caption property box** and **20** as the field size.
- h. Select **Field3**, and then type **FirstName** to rename the field. In the *Field Properties* section in the bottom portion of the table design, type **Author's First Name** as the caption, and then type **15** as the field size.
- i. Click the **ID field row selector** (which shows the primary key) to select the row, and then click **Delete Rows** in the Tools group. Click **Yes** twice to confirm both messages.
- j. Click the **AuthorID row selector**, and then click **Primary Key** in the Tools group to reset the primary key.
- k. Click **Save** on the Quick Access Toolbar to save the design changes. Click **Yes** to the *Some data may be lost* message. Close the table.
- l. Click the **External Data tab**, and then click **Excel** in the Import & Link group to launch the *Get External Data - Excel Spreadsheet* feature. Verify the *Import the source data into a new table in the current database* option is selected, click **Browse**, and then go to the student data folder. Select the *a02p1books* workbook, click **Open**, and then click **OK**. This workbook contains two worksheets. Follow these steps:
 - Select the **Publishers worksheet**, and then click **Next**.
 - Click the **First Row Contains Column Headings check box**, and then click **Next**.
 - Select the **PubID field**, click the **Indexed arrow**, select **Yes (No Duplicates)**, and then click **Next**.
 - Click the **Choose my own primary key arrow**, select **PubID**, if necessary, and then click **Next**.
 - Accept the name *Publishers* for the table name, click **Finish**, and then click the **Close button** without saving the import steps.
- m. Repeat the Import Wizard to import the Books worksheet from the *a02p1books* workbook into the Access database. Follow these steps:
 - Select the **Books worksheet**, and then click **Next**.
 - Ensure the *First Row Contains Column Headings* check box is checked, and then click **Next**.
 - Click on the **ISBN column**, set the Indexed property box to **Yes (No Duplicates)**, and then click **Next**.
 - Click the **Choose my own primary key arrow**, select **ISBN** as the primary key field, and then click **Next**.
 - Accept the name *Books* as the table name. Click **Finish**, and then click the **Close button** without saving the import steps.
- n. Right-click the **Books table** in the Navigation Pane, and then select **Design View**. Make the following changes:
 - Change the PubID field name to **PublisherID**.
 - Change the Caption property to **Publisher ID**.
 - Change the PublisherID Field Size property to **2**.
 - Click the **ISBN field** at the top, and then change the Field Size property to **13**.
 - Click the **Price field**, and then change the Price field Data Type to **Currency**.
 - Change the AuthorCode field name to **AuthorID**.
 - Change the AuthorID Field Size property to **Long Integer**.
 - Click the **ISBN field row selector** (which shows the primary key) to select the row, then release, press, and hold the mouse. Drag the row up to the first position.
 - Click **Save** on the Quick Access Toolbar to save the design changes to the Books table. Click **Yes** to the *Some data may be lost* warning.
 - Close the table.
- o. Right-click the **Publishers table** in the Navigation Pane, and then select **Design View**. Make the following changes:
 - Change the PubID field name to **PublisherID**.
 - Change the PublisherID Field Size property to **2**.
 - Change the Caption property to **Publisher's ID**.
 - Change the Field Size property to **50** for the PubName and PubAddress fields.

- Change the Pub Address field name to **PubAddress** (remove the space).
 - Change the PubCity Field Size property to **30**.
 - Change the PubState Field Size property to **2**.
 - Change the Pub ZIP field name to **PubZIP** (remove the space).
 - Click **Save** on the Quick Access Toolbar to save the design changes to the Publishers table. Click **Yes** to the *Some data may be lost* warning. Close all open tables.
- p. Click the **Database Tools** tab, and then click **Relationships** in the Relationships group. Click **Show Table** if necessary. Follow these steps:
- Double-click each table name in the Show Table dialog box to add it to the Relationships window, and then close the Show Table dialog box.
 - Drag the **AuthorID** field from the Author table onto the AuthorID field in the Books table.
 - Click the **Enforce Referential Integrity** and **Cascade Update Related Fields** check boxes in the Edit Relationships dialog box. Click **Create** to create a one-to-many relationship between the Author and Books tables.
 - Drag the **PublisherID** field from the Publishers table onto the PublisherID field in the Books table.
 - Click the **Enforce Referential Integrity** and **Cascade Update Related Fields** check boxes in the Edit Relationships dialog box. Click **Create** to create a one-to-many relationship between the Publishers and Books tables.
 - Click **Save** on the Quick Access Toolbar to save the changes to the Relationships window.
 - Click **Relationship Report** in the Tools group on the Design tab.
 - Close the report; do not save it. Close the Relationships window.
- q. Click the **File** tab, and then click **Compact & Repair Database**.
- r. Click the **File** tab, click **Save & Publish**, and then double-click **Back Up Database**.
- s. Click **Save** to accept the default backup file name with today's date.
- t. Click the **File** tab, and then click **Exit** (to exit Access).
- u. Submit based on your instructor's directions.

2 My Movie Collection



Over the years, you have collected over 300 movies and you decide to catalog them in an Access database. You will enter the title, genre, format, running time, director, actors, price, and year produced for each movie. You will create three tables—Movies, Genre, and Format—and then join each of them in a relationship. This exercise follows the same set of skills as used in Hands-On Exercises 1, 2, and 4 in the chapter. Refer to Figure 2.55 as you complete this exercise.

MovieID	Title	GenreID	Actors	FormatID	RunningTime	Director	Price	YearProduced
1	Black Swan	1	Natalie Portman	5	2:00	Darren Aronofsky	\$9.95	2010
2	The Fighter	1	Mark Wahlberg	1	1:45	David O. Russell	\$9.95	2010
3	Inception	1	Leonardo DiCaprio	1	1:45	Christopher Nolan	\$5.99	2010
4	The Kids Are All Right	2	Annette Bening	1	1:45	Lisa Cholodenko	\$9.95	2009
5	The King's Speech	3	Colin Firth	1	2:00	Tom Hooper	\$9.95	2010
6	127 Hours	1	James Franco	4	1:50	Danny Boyle	\$9.95	2011
7	The Social Network	1	Jesse Eisenberg	1	1:47	David Fincher	\$9.95	2009
8	Toy Story 3	1	Tom Hanks	1	1:55	Lee Unkrich	\$9.95	2010
9	True Grit	4	Jeff Bridges	3	2:00	Ethan Coen, Joel Coen	\$12.95	2010
10	Winter's Bone	5	Jennifer Lawrence	1	2:00	Debra Granik	\$9.95	2009

FIGURE 2.55 Enter the Movie Data ►

- a. Open Access, and then type **a01p2movies_LastnameFirstname** in the **File Name** box. Click **Browse** to locate your Student Data Files folder in the File New Database dialog box, click **OK** to close the dialog box, and then click **Create** to create the new database.
- b. Click **View** in the Views group to switch to Design view. Type **Movies** in the **Save As** dialog box, and then click **OK**.
- c. Change the first Field Name to **MovieID**. Type **Title** in the second row of the Field Name column, and then press **Tab**. Accept **Text** as the Data Type, and then press **Tab** twice. Type **GenreID** in the third row of the Field Name column, and then press **Tab**. Select **Number** for the Data Type.

- d. Add the remainder of the fields:

Actors	Text
FormatID	Number
RunningTime	Date/Time (Select Short Time as the Format in Field Properties.)
Director	Text
Price	Currency
YearProduced	Number

- e. Click **View** in the Views group to switch to Datasheet view. Click **Yes** to save the table. Add the records as shown in Figure 2.55. Press **Tab** to move to the next field. Adjust column widths and column alignment to match Figure 2.55. Save and close the table.
- f. Click the **Create** tab, and then click **Table Design** in the Tables group. Type **GenreID** for the first Field Name, and then select **AutoNumber** as the Data Type. Type **GenreDescription** for the second Field Name, and then accept **Text** as the Data Type.
- g. Click the **GenreID** field, and then click **Primary Key** in the Tools group. Click **View** in the Views group, and then click **Yes** at the next prompt. Type **Genre** in the **Save As** dialog box, and then click **OK**.
- h. Add the genre descriptions as shown below, and then save and close the table. GenreID will be generated automatically by Access.

GenreID	GenreDescription
1	Drama
2	Action
3	Comedy
4	Animation
5	Western

- i. Click the **Create** tab, and then click **Table Design** in the Tables group. Type **FormatID** for the first Field Name, and then select **AutoNumber** as the Data Type. Type **FormatDescription** for the second Field Name, and then accept **Text** as the Data Type.
- j. Click the **FormatID** field, and then click **Primary Key** in the Tools group. Click **View** in the Views group, and then click **Yes** at the next prompt. Type **Format** in the **Save As** dialog box, and then click **OK**.
- k. Add the format descriptions as shown below, and then save and close the table. FormatID will be generated automatically by Access.

FormatID	FormatDescription
1	DVD
2	VHS
3	Blu-Ray
4	MOV
5	MPEG

- l. Click the **Database Tools** tab, and then click **Relationships** in the Relationships group. Add all three tables to the Relationships window, and then close the Show Table dialog box.
- m. Increase the height of the Movies table. Drag the **GenreID** field from the Genre table and drop it onto the GenreID field in the Movies table. Check the **Enforce Referential Integrity check box** in the Edit Relationships dialog box, and then click **Create**. Drag the **FormatID** field from the Format table and drop it onto the FormatID field in the Movies table. Check the **Enforce Referential Integrity check box** in the Edit Relationships dialog box. Click **Create**, and then close the Relationships window. Click **Save**.
- n. Click the **File** tab, and then click **Compact & Repair Database**.
- o. Click the **File** tab, and then click **Exit** (to exit Access).
- p. Submit the database based on your instructor's directions.