Figure 2-45 Records for the Product table

Product ID	Company ID	Product Type	Price	Unit	Color	Material	Size	Weight in Lbs	Discount Offered
5306	GEN359	Pine mulch	23.35	Cubic yard	Dark brown	Softwoods-pine			Y
5013	HOL207	Small bench	712.00	Each	Green	Steel and cast iron	8 x 2 feet	266	N

8. Use the Import Spreadsheet Wizard to add data to the Product table. The data you need to import is contained in the Goods workbook, which is an Excel file located in the Access1\Review folder provided with your Data Files.
   a. Specify the Goods workbook as the source of the data.
   b. Select the option for appending the data.
   c. Select Product as the table.
   d. In the Import Spreadsheet Wizard dialog boxes, make sure Access confirms that the first row contains column headings, and import to the Product table. Do not save the import steps.
9. Open the **Product** table in Datasheet view and resize all columns to their best fit. Then save and close the Product table.
10. Define a one-to-many relationship between the primary Company table and the related Product table. Select the referential integrity option and the cascade updates option for the relationship.
11. Save the changes to the Relationships window and close it, compact and repair the Supplier database, and then close the database.

SAM

APPLY

Case Problem 1

If you have a SAM 2010 user profile, your instructor may have assigned an autogradable version of this assignment. If so, log into the SAM 2010 Web site at www.cengage.com/sam2010 to download the instructions and start files.

Data Files needed for this Case Problem: Pinehill.accdb (*cont. from Tutorial 1*), Music.accdb, Lessons.xlsx, and Student.txt

Pine Hill Music School Yuka Koyama uses the Pinehill database to maintain information about the students, teachers, and contracts for her music school. Yuka asks you to help her build the database by updating one table and creating two new tables. Complete the following steps:

1. Open the **Pinehill** database, which you created and stored in the Access1\Case1 folder in Tutorial 1.
2. Open the **Teacher** table in Design view, and set the field properties as shown in Figure 2-46.

Figure 2-46 Field properties for the Teacher table

Field Name	Data Type	Description	Field Size	Other
TeacherID	Text	Primary key	7	Caption = Teacher ID
FirstName	Text		20	Caption = First Name
LastName	Text		25	Caption = Last Name
Degree	Text		3	
School	Text		50	
HireDate	Date/Time			Format = Short Date Caption = Hire Date

3. Add a new field as the last field in the Teacher table with the field name **Beginners**, the Yes/No data type, a Format property of Yes/No, and a Caption property of **Takes Beginners**.

4. Save the Teacher table. Click the Yes button when a message appears indicating some data might be lost.
5. In the datasheet, resize the Takes Beginners column to best fit, and then specify that the following teachers can take beginners: Schwartz, Eberle, Norris, Tanaka, Culbertson, and Mueller.
6. Save and close the Teacher table.
7. Yuka created a table named Student in the Music database that is located in the Access1\Case1 folder provided with your Data Files. Import the structure of the Student table in the Music database into a new table named Student in the Pinehill database. Do not save the import steps.
8. Open the **Student** table in Datasheet view, and then add the following two fields to the end of the table: **BirthDate** (Date/Time field) and **Gender** (Text field).
9. Use the Phone Quick Start selection in the Data Type gallery to add four fields related to phones between the Zip and BirthDate fields. (*Hint:* Be sure to make the BirthDate field the active field before adding the new fields.)
10. Display the Student table in Design view, delete the BusinessPhone and FaxNumber fields, and then save and close the Student table.
11. Modify the design of the Student table so that it matches the design in Figure 2-47, including the revised field names and data types.

Figure 2-47 Field properties for the Student table

Field Name	Data Type	Description	Field Size	Other
StudentID	Text	Primary key	7	Caption = Student ID
LastName	Text		25	Caption = Last Name
FirstName	Text		20	Caption = First Name
Address	Text		35	
City	Text		25	
State	Text		2	
Zip	Text		10	
HomePhone	Text		14	
MobilePhone	Text		14	
BirthDate	Date/Time			Format = Short Date Caption = Birth Date
Gender	Text	F(emale), M(ale)	1	

12. Move the LastName field so it follows the FirstName field.
13. Save your changes to the table design, add the records shown in Figure 2-48 to the Student table, and then close the Student table.

Figure 2-48 Records for the Student table

Student ID	First Name	Last Name	Address	City	State	Zip	Home Phone	Mobile Phone	Birth Date	Gender
APP7509	Sam	Applegate	15675 SW Greens Way	Portland	OR	97224	503-968-2245	503-968-0091	10/10/1996	M
BAR7544	Andrea	Barreau	7660 SW 135th Ave	Beaverton	OR	97008	503-579-2227	503-579-8754	11/28/1999	F

14. Yuka exported the student data that she was maintaining in another computer system to a text file, and she asks you to add this data to the Student table. The data you need to import is contained in the Student text file (located in the Access1\Case1 folder provided with your Data Files).
    a. Specify the Student text file as the source of the data.
    b. Select the option for appending the data to the table.

c. Select Student as the table.
d. In the Import Text Wizard dialog boxes, choose the option to import delimited data, to use a comma delimiter, and to import the data into the Student table. Do not save the import steps.

15. Open the **Student** table in Datasheet view, resize columns in the datasheet to their best fit (as necessary), and then save and close the table.
16. Create a new table in Design view, using the table design shown in Figure 2-49.

Figure 2-49 Design for the Contract table

Field Name	Data Type	Description	Field Size	Other
ContractID	Text	Primary key	4	Caption = Contract ID
StudentID	Text	Foreign key	7	Caption = Student ID
TeacherID	Text	Foreign key	7	Caption = Teacher ID
LessonType	Text		25	Caption = Lesson Type
LessonLength	Number	30 or 60 minutes	Integer	Caption = Lesson Length
LessonCost	Currency			Format = Currency Decimal Places = 0 Caption = Lesson Monthly Cost
RentalCost	Currency	Monthly rental charge for instrument		Format = Currency Decimal Places = 0 Caption = Monthly Rental Cost

17. Specify ContractID as the primary key, and then save the table using the name **Contract**.
18. Switch to Datasheet view, and then use the Start and End Dates Quick Start selection in the Data Type gallery to add two Date/Time fields between the TeacherID and LessonType fields. (*Hint:* Be sure to make the LessonType field the active field before adding the new fields.)
19. Switch to Design view, specify the Short Date format for the StartDate and EndDate fields, change the field captions to **Contract Start Date** and **Contract End Date** (respectively), and then save and close the Contract table.

EXPLORE

20. Use the Import Spreadsheet Wizard to add data to the Contract table. The data you need to import is contained in the Lessons workbook, which is an Excel file located in the Access1\Case1 folder provided with your Data Files.
    a. Specify the Lessons workbook as the source of the data.
    b. Select the option for appending the data to the table.
    c. Select Contract as the table.
    d. In the Import Spreadsheet Wizard dialog boxes, choose the Sheet1 worksheet, make sure Access confirms that the first row contains column headings, and import to the Contract table. Do not save the import steps.
21. Open the **Contract** table and add the records shown in Figure 2-50. (*Hint*: Use the New button in the Records group on the Home tab to add a new record.)

Figure 2-50 Records for the Contract table

Contract ID	Student ID	Teacher ID	Contract Start Date	Contract End Date	Lesson Type	Lesson Length	Lesson Monthly Cost	Monthly Rental Cost
3176	VAR7527	91-0178	3/21/2013	3/21/2014	Violin	30	$140	$35
3179	MCE7551	70-4490	6/1/2013	6/1/2014	Guitar	60	$200	$0

22. Resize columns in the datasheet to their best fit (as necessary), and then save and close the Contract table.

23. Define the one-to-many relationships between the database tables as follows: between the primary Student table and the related Contract table, and between the primary Teacher table and the related Contract table. Select the referential integrity option and the cascade updates option for each relationship.
24. Save the changes to the Relationships window and close it, compact and repair the Pinehill database, and then close the database.

CHALLENGE

Use the Import Spreadsheet Wizard to create a table to store data about fitness center members.

Case Problem 2

Data Files needed for this Case Problem: Fitness.accdb (*cont. from Tutorial 1*) and Center.xlsx

Parkhurst Health & Fitness Center Martha Parkhurst uses the Fitness database to track information about members who join the center and the programs in which each member is enrolled. She asks you to help her maintain this database. Complete the following:

1. Open the **Fitness** database, which you created and stored in the Access1\Case2 folder in Tutorial 1.
2. Open the **Program** table in Design view, and change the following field properties:
   a. ProgramID: Enter **Primary key** for the description, change the field size to **3**, and enter **Program ID** for the caption.
   b. ProgramType: Change the field size to **40** and enter **Program Type** for the caption.
   c. MonthlyFee: Change the format to **Standard** and enter **Monthly Fee** for the caption.
   d. PhysicalRequired: Change the data type to Yes/No, the Format property to Yes/No, and enter **Physical Required** for the caption.
3. Save and close the Program table. Click the Yes button when a message appears indicating some data might be lost.

EXPLORE

4. Use the Import Spreadsheet Wizard to create a table in the Fitness database. As the source of the data, specify the Center workbook, located in the Access1\Case2 folder provided with your Data Files. Select the option to import the source data into a new table in the current database, and then click the OK button.

EXPLORE

5. Complete the Import Spreadsheet Wizard dialog boxes as follows:
   a. Select Sheet1 as the worksheet you want to import.
   b. Accept the option specifying that the first row contains column headings.
   c. Accept the field options the wizard suggests, and do not skip any fields.
   d. Choose MemberID as your own primary key.
   e. Import the data to a table named **Member**, and do not save your import steps.
6. Open the **Member** table in Design view, and then delete the InitiationFeeWaived field.
7. Modify the design of the Member table so that it matches the design shown in Figure 2-51. (*Hint*: For Text fields, delete any formats specified in the Format property boxes.)

Figure 2-51 Design for the Member table

Field Name	Data Type	Description	Field Size	Other
MemberID	Text	Primary key	4	Caption = Member ID
ProgramID	Text	Foreign key	3	Caption = Program ID
First	Text		18	Caption = First Name
Last	Text		18	Caption = Last Name
Street	Text		30	
City	Text		24	
State	Text		2	
Zip	Text		10	
Phone	Text		14	
DateJoined	Date/Time			Format = Short Date Caption = Date Joined
Expiration	Date/Time	Date when membership expires		Format = Short Date Caption = Expiration Date
Status	Text	Active, Inactive, or On Hold	8	Caption = Membership Status

8. Save the Member table. Click the Yes button when a message appears indicating some data might be lost.

EXPLORE

9. The Default Value property for a field allows you to specify the value that should be entered, by default, for that field for each new record you enter in the table. Specifying a default value can save you time if most of the records you enter will include that value for the field. Set the Default Value property for the Status field to **"Active"** (including the quotation marks). Save and close the Member table.
10. Open the **Member** table in Datasheet view and confirm that the InitiationFeeWaived field was removed from the table. If not, open the table in Design view again, repeat the step to delete the InitiationFeeWaived field, and then save and close the table.
11. Add the records shown in Figure 2-52 to the Member table. (*Hint*: Use the New button in the Records group on the Home tab to add a new record.) Be sure to enter your first and last names in the appropriate fields for the first new record added. Note the default field value of "Active" in the Membership Status column as you enter the new records.

Figure 2-52 Records for the Member table

Member ID	Program ID	First Name	Last Name	Street	City	State	Zip	Phone	Date Joined	Expiration Date	Membership Status
1170	203	Student First	Student Last	40 Green Boulevard	Bon Air	VA	23235	804-323-6824	6/3/2013	12/3/2013	Active
1172	211	Ed	Curran	25 Fairway Drive	Richmond	VA	23220	804-674-0227	11/16/2013	11/16/2014	Active

12. Resize columns in the datasheet to their best fit (as necessary), and then save and close the table.
13. Define a one-to-many relationship between the primary Program table and the related Member table. Select the referential integrity option and the cascade updates option for this relationship.
14. Save the changes to the Relationships window and close it, compact and repair the Fitness database, and then close the database.

Use your skills to create and modify tables for a recycling agency.

APPLY

Case Problem 3

Data Files needed for this Case Problem: Agency.txt, Rossi.accdb (*cont. from Tutorial 1*), Gifts.xlsx, and Recycle.accdb

Rossi Recycling Group Tom Rossi uses the Rossi database to maintain information about the donors, agencies, and donations to his not-for-profit agency. Tom asks you to help him maintain the database by updating one table and creating two new ones. Complete the following steps:

1. Open the **Rossi** database, which you created and stored in the Access1\Case3 folder in Tutorial 1.
2. Open the **Donor** table in Design view, and change the following field properties:
   a. DonorID: Enter **Primary key** for the description, change the field size to **5**, and enter **Donor ID** for the caption.
   b. Title: Change the field size to **4**.
   c. FirstName: Change the field size to **20** and enter **First Name** for the caption.
   d. LastName: Change the field size to **25** and enter **Last Name** for the caption.
   e. Phone: Change the field size to **14.**
3. Save and close the Donor table. Click the Yes button when a message appears indicating some data might be lost.
4. Tom created a table named Agency in the Recycle database that is located in the Access1\Case3 folder provided with your Data Files. Import the structure of the Agency table in the Recycle database into a new table named Agency in the Rossi database. Do not save the import steps.
5. Open the Agency table in Datasheet view, and then delete the following fields from the table: Fax Number, Mobile Phone, and Notes.
6. Rename the ID field to **AgencyID**, and change its data type to Text.
7. Use the Address Quick Start selection in the Data Type gallery to add five fields between the First Name and Phone fields. (*Hint:* Be sure to make the Phone field the active field before adding the new fields.)
8. Switch to Design view, and then modify the Agency table so that it matches the design shown in Figure 2-53, including the field names and their order. Make sure the AgencyID field is specified as the primary key. Also, be sure to delete the CountryRegion field from the table, and delete the Caption property values for the fields added with the Address Quick Start selection.

Figure 2-53 Design for the Agency table

Field Name	Data Type	Description	Field Size	Other
AgencyID	Text	Primary key	3	Caption = Agency ID
Agency	Text		40	Caption = Agency Name
FirstName	Text		20	Caption = Contact First Name
LastName	Text		25	Caption = Contact Last Name
Address	Text		30	
City	Text		24	
State	Text		2	
Zip	Text		10	
Phone	Text		14	

9. Save your changes to the table design, add the records shown in Figure 2-54 to the Agency table, and then close the Agency table.

Figure 2-54 Records for the Agency table

Agency ID	Agency Name	Contact First Name	Contact Last Name	Address	City	State	Zip	Phone
K64	Community Development	Jerri	Clarkson	223 Penn Ave	Salina	KS	67401	785-309-3351
K82	SeniorCare Program	Todd	Groverman	718 N Walnut	McPherson	KS	67460	620-241-3668

10. Tom exported the agency data that he was maintaining in another computer system to a text file, and he asks you to add this data to the Agency table. The data you need to import is contained in the Agency text file (located in the Access1\Case3 folder provided with your Data Files).
    a. Specify the Agency text file as the source of the data.
    b. Select the option for appending the data to the table.
    c. Select Agency as the table.
    d. In the Import Text Wizard dialog boxes, choose the options to import delimited data, to use a comma delimiter, and to import the data into the Agency table. Do not save the import steps.
11. Resize columns in the Agency datasheet to their best fit (as necessary), and then save and close the table.
12. Use Design view to create a table using the table design shown in Figure 2-55.

Figure 2-55 Design for the Donation table

Field Name	Data Type	Description	Field Size	Other
DonationID	Text	Primary key	4	Caption = Donation ID
DonorID	Text	Foreign key	5	Caption = Donor ID
AgencyID	Text	Foreign key	3	Caption = Agency ID
DonationDate	Date/Time			Format = Short Date
				Caption = Donation Date
Description	Text		50	Caption = Donation Description
DonationValue	Currency	Cash amount donated or estimated value of goods donated		Format = Currency Decimal Places = 2 Caption = Donation Value
Pickup	Yes/No			Caption = Pickup Required Format = Yes/No

13. Specify DonationID as the primary key, save the table as **Donation**, and then close the table.

EXPLORE

14. Use the Import Spreadsheet Wizard to add data to the Donation table. The data you need to import is contained in the Gifts workbook, which is an Excel file located in the Access1\Case3 folder provided with your Data Files.
    a. Specify the Gifts workbook as the source of the data.
    b. Select the option for appending the data to the table.
    c. Select Donation as the table.
    d. In the Import Spreadsheet Wizard dialog boxes, choose the Sheet1 worksheet, make sure Access confirms that the first row contains column headings, and import to the Donation table. Do not save the import steps.
15. Open the **Donation** table, and add the records shown in Figure 2-56. (*Hint*: Use the New button in the Records group on the Home tab to add a new record.)

Figure 2-56 Records for the Donation table

Donation ID	Donor ID	Agency ID	Donation Date	Donation Description	Donation Value	Pickup Required
2117	36012	K82	02/20/2013	Cash	$50.00	No
2122	36016	N33	03/22/2013	Cash	$35.00	No

16. Resize columns in the datasheet to their best fit (as necessary), and then save and close the table.
17. Define the one-to-many relationships between the database tables as follows: between the primary Donor table and the related Donation table, and between the primary Agency table and the related Donation table. Select the referential integrity option and the cascade updates option for each relationship.
18. Save the changes to the Relationships window and close it, compact and repair the Rossi database, and then close the database.

Explore some new skills to finish creating a database for a luxury rental company.

CHALLENGE

Case Problem 4

Data Files needed for this Case Problem: Bookings.txt, GEM.accdb (*cont. from Tutorial 1*), and Overseas.accdb

GEM Ultimate Vacations Griffin and Emma MacElroy use the GEM database to track the data about the services they provide to the clients who book luxury vacations through their agency. They ask you to help them maintain this database. Complete the following steps:

1. Open the **GEM** database, which you created and stored in the Access1\Case4 folder in Tutorial 1.
2. Open the **Guest** table in Design view and change the following field properties:
   a. GuestID: Enter **Primary key** for the description, change the field size to **3**, and enter **Guest ID** for the caption.
   b. GuestFirst: Change the field size to **20** and enter **Guest First Name** for the caption.
   c. GuestLast: Change the field size to **25** and enter **Guest Last Name** for the caption.
   d. Address: Change the field size to **32**.
   e. City: Change the field size to **24**.
   f. State/Prov: Change the field size to **2**.
   g. PostalCode: Change the field size to **10** and enter **Postal Code** for the caption.
   h. Country: Change the field size to **15**.
   i. Phone: Change the field size to **14**.
3. Save the Guest table, click the Yes button when a message appears indicating some data might be lost, resize the Guest First Name and Guest Last Name columns in Datasheet view to their best fit, and then save and close the table.

EXPLORE

4. In addition to importing the structure of an existing Access table, you can also import both the structure and the data contained in a table to create a new table. Import the Rentals table structure and data from the Overseas database into a new table in the GEM database as follows:
   a. Click the External Data tab on the Ribbon, and then click the Access button in the Import & Link group.
   b. As the source of the data, specify the Overseas database, located in the Access1\Case4 folder provided with your Data Files.

c. Select the option button to import tables, queries, forms, reports, macros, and modules into the current database, and then click the OK button.
d. In the Import Objects dialog box, click Rentals, click the Options button, and then make sure that the correct option is selected to import the table's data and structure (definition).
e. Do not save your import steps.

EXPLORE

5. Right-click the Rentals table in the Navigation Pane, click Rename on the shortcut menu, and then enter **Property** as the new name for this table.
6. Open the **Property** table in Design view, delete the VIP Program field, and then move the PropertyType field so that it appears between the Sleeps and Description fields. Make sure that the PropertyID field is specified as the table's primary key.
7. Change the following properties:
   a. PropertyID: Change the data type to Text, change the field size to **4**, and enter **Property ID** for the caption.
   b. PropertyName: Enter **Property Name** for the caption.
   c. NightlyRate: Enter **Nightly Rate** for the caption.
   d. PropertyType: Enter **Property Type** for the caption.
8. Save the modified table and then display it in Datasheet view. Resize all datasheet columns to their best fit, and then save and close the table.
9. Use Design view to create a table using the table design shown in Figure 2-57.

Figure 2-57 Design for the Reservation table

Field Name	Data Type	Description	Field Size	Other
ReservationID	Text	Primary key	3	Caption = Reservation ID
GuestID	Text	Foreign key	3	Caption = Guest ID
PropertyID	Text	Foreign key	4	Caption = Property ID
StartDate	Date/Time			Caption = Start Date
EndDate	Date/Time			Caption = End Date
People	Number	Number of people in the party	Integer	
Rate	Currency	Rate per day; includes any discounts or promotions		Format = Currency Decimal Places = 0 Caption = Rental Rate

EXPLORE

10. Specify ReservationID as the primary key, and then save the table as **Reservation**.
11. Refer back to Figure 2-14 to review the custom date formats. Change the Format property of the StartDate and EndDate fields to a custom format that displays dates in a format similar to 11/23/13. Save and close the Reservation table.
12. Griffin exported the reservation data that he was maintaining in another computer system to a text file, and he asks you to add this data to the Reservation table. The data you need to import is contained in the Bookings text file (located in the Access1\Case4 folder provided with your Data Files).
    a. Specify the Bookings text file as the source of the data.
    b. Select the option for appending the data to the table.
    c. Select Reservation as the table.
    d. In the Import Text Wizard dialog boxes, choose the option to import delimited data, to use a comma delimiter, and to import the data into the Reservation table.
    e. Do not save the import steps.
13. Resize columns in the **Reservation** table datasheet to their best fit (as necessary), and then save and close the table.

14. Define the one-to-many relationships between the database tables as follows: between the primary Guest table and the related Reservation table, and between the primary Property table and the related Reservation table. Select the referential integrity option and the cascade updates option for each relationship.
15. Save the changes to the Relationships window and close it, compact and repair the GEM database, and then close the database.

ASSESS

SAM: Skills Assessment Manager

For current SAM information, including versions and content details, visit SAM Central (http://samcentral.course.com). If you have a SAM user profile, you may have access to hands-on instruction, practice, and assessment of the skills covered in this tutorial. Since various versions of SAM are supported throughout the life of this text, check with your instructor for the correct instructions and URL/Web site for accessing assignments.

ENDING DATA FILES