

Concepts Review

True/False Questions

Each of the following statements is either true or false. Indicate your choice by circling T or F.

- T F 1. A Lookup field lets you select a value from a list instead of keying the value.
- T F 2. When you clear the Relationships window, you also delete the relationships.
- T F 3. The set of database rules for relationships is known as validating norms.
- T F 4. A subdatasheet is a datasheet linked within another datasheet containing related data.
- T F 5. Values in a Lookup field are always listed in ascending order.
- T F 6. Deleting the join line between two field lists in the Relationships window deletes the corresponding common fields in each of the two tables.
- T F 7. The Relationships window can display more than one relationship at a time.
- T F 8. Normalization is the process of restructuring a relational database for the purposes of organizing data efficiently, eliminating field redundancy, and improving data consistency.

Short Answer Questions

Write the correct answer in the space provided.

- 1. What graphic represents the relationship between two tables in the Relationships window?

- 2. How do you delete a relationship in the Relationships window?

- 3. When the common field is a primary key in one table, what does it become in the other table?

- 4. In a One-To-Many relationship with referential integrity, how can you identify the table on the “many” side of the relationship?

5. Referential integrity cannot be set for what type of relationship?

6. What type of Lookup field can store more than one value per record?

7. What analyzing tool provides recommendations for restructuring a relational database for the purposes of organizing data efficiently, eliminating field redundancy, and improving data consistency?

8. What is an association placed on an object that requires the existence of another object known as?

Critical Thinking

Answer these questions on a separate page. There are no right or wrong answers. Support your answers with examples from your own experience, if possible.

1. The One-To-Many relationship is the most commonly used relationship in business databases. Why do you think this is true?
2. Multi-valued Lookup fields can be very useful for most types of data; however, some fields should not have more than one value. What type of examples can you think of that should never contain more than one value?





Skills Review

Exercise 5-18

The IT director has noticed that a relationship needs to be created between the facilities and the facilities type tables. You are directed to create the relationship and document your work.

1. Open a database by following these steps:
 - a. Locate and open the **Lesson 05** folder.
 - b. If you already have a copy of *[your initials]-EcoMed-05*, skip to step 1d.
 - c. Make a copy of **EcoMed-05** and rename it *[your initials]-EcoMed-05*.
 - d. Open and enable content for *[your initials]-EcoMed-05*.

UNIT 2 Designing and Managing Database Objects

2. Create a relationship by following these steps:
 - a. From the **Database Tools** tab, in the **Relationships** group, click **Relationships** .
 - b. From the **Design** tab, in the **Tools** group, click **Clear Layout** . Click **Yes** to clear the layout.
 - c. From the **Design** tab, in the **Relationships** group, click **Show Table** .
 - d. From the **Show Table** dialog box, double-click **tblFacilities** and **tblFacType**.
 - e. Click **Close**.
 - f. Resize the Field Lists so you can see every field.
 - g. From the **tblFacilities** field list, click and drag the **FacType** field to the **FacType** field in the **tblFacType** field list.
 - h. In the **Edit Relationship** dialog box, click **Create**.
3. Create a Relationship Report by following these steps:
 - a. From the **Design** tab, in the **Tools** group, click **Relationship Report** .
 - b. Save the report as **rptRelFac-Type** and click **OK**.



Assessment

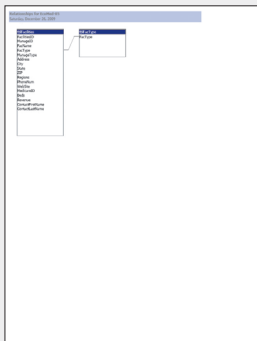


- Right-click the **rptRelFac-Type** tab, and choose **Close All**.
- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Save a Relationship Report by following these steps:
 - a. Click the **File** tab and from the **Print** option, click **Print Preview** .
 - b. From the **Print Preview** tab, in the **Data** group, click **PDF or XPS**  to save the printout as a file.
 - c. Save the file as a PDF and name the file **[your initials]-05-18-A**.
 - d. Depending on your class procedures, print or turn in the PDF file.







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Exercise 5-19

Now that a relationship has been created between two tables, insert a subdatasheet into the facilities type table using the appropriate field as the link.

1. The database **[your initials]-EcoMed-05** is required to complete this exercise.
 - a. Open and enable content for **[your initials]-EcoMed-05**.

2. Insert a subdatasheet by following these steps:
 - a. Open **tblFacType** in **Datasheet View**.
 - b. From the **Home** tab, in the **Records** group, click the **More** button  and choose **Subdatasheet**, then **Subdatasheet** , from the menu.
 - c. From the list, select **tblFacilities** with the **Child** and **Master** fields **FacType**. Click **OK**.
 - d. Close the table and save the changes.
3. Set Enforce Referential Integrity by following these steps:
 - a. From the **Database Tools** tab, in the **Relationships** group, click **Relationships** .
 - b. Right-click the sloping part of the join line between **tblFacilities** and **tblFacType**, and choose **Edit Relationship**.
 - c. Click the check box to select **Enforce Referential Integrity** and click **OK**.
 - d. From the Quick Access toolbar, click **Save** .
 - e. Close the Relationship window.

Assessment




- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.



-OR-

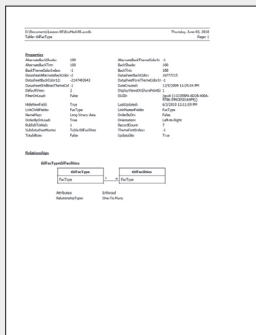


- Create a **Database Documenter** report by following these steps:

- a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter** .
- b. From the **Documenter** dialog box, click the **tblFacType** check box.
- c. Click **Options**.
- d. For **Table**, include **Properties** and **Relationships**.
- e. From the **Include for Fields** section, choose **Nothing**.
- f. From the **Include for Indexes** section, choose **Nothing**.
- g. Click **OK** twice to go to **Print Preview**.

- Save a **Database Documenter** report by following these steps:

- a. From the **Print Preview** tab, in the **Data** group, click **PDF or XPS**  to save the printout as a file.
- b. Save the file as a PDF and name the file **[your initials]-05-19-A**.
- c. Depending on your class procedures, print or turn in the PDF file.
- d. From the **Print Preview** tab, in the **Close Preview** group, click **Close Print Preview** .

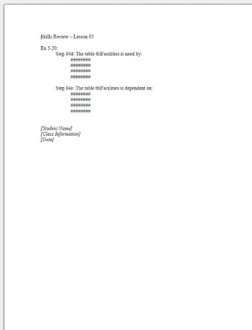


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Exercise 5-20

The client facility information stored in the **facilities** table includes a field to identify the corresponding information for the client's corporate (management) information. Create a **Lookup** field to allow a user to select the management location by the name of the company.

1. The database *[your initials]-EcoMed-05* is required to complete this exercise.
 - a. Open and enable content for *[your initials]-EcoMed-05*.
2. Create a **Lookup** field by following these steps:
 - a. Open **tblFacilities** in **Design View** and select the field **ManageID**.
 - b. Click the down-arrow for the **ManageID**'s **Data Type** and select **Lookup Wizard**.
 - c. In the **Lookup Wizard** dialog box, click **Next**.
 - d. From the list of tables, select **Table: tblManagement** and click **Next**.
 - e. In the **Available Fields** area, double-click **ManageID** and **ManageName**. Click **Next**.
 - f. Click the drop-down arrow and choose **ManageName**. Click **Next**.
 - g. Resize the **ManageName** column so all data can be seen. Click **Next**.
 - h. Name the field **Management**. Click **Finish**.
 - i. Save the table and switch to **Datasheet View**.
 - j. Close the table.
3. Identify Object Dependency by following these steps:
 - a. Create a Word document called *[your initials]-05-20-A* and record the answers to the following questions.
 - b. Select **tblFacilities**.
 - c. From the **Database Tools** tab, in the **Relationships** group, click **Object Dependencies** .
 - d. Select **Objects that depend on me**. What objects depend on **tblFacilities**?
 - e. Select **Objects that I depend on**. What objects does **tblFacilities** depend on?
 - f. Include your name, class information, and today's date on your answer sheet.
 - g. Close the **Object Dependency** pane.



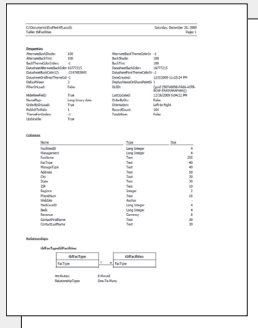
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Assessment





- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.
- Depending on your class procedures, print or turn in the Word file.

-OR-






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- Create a **Database Documenter** report by following these steps:
 - a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter** .
 - b. From the **Documenter** dialog box, click **tblFacilities** check box.
 - c. Click **Options**.
 - d. For **Table**, include **Properties** and **Relationships**.
 - e. For **Fields**, select the option **Names, Data Types, and Sizes**.
 - f. For **Indexes**, select the option to **Nothing**.
 - g. Click **OK** twice to go to **Print Preview**.
- Save a **Database Documenter** report by following these steps:
 - a. From the **Print Preview** tab, in the **Data** group, click **PDF or XPS**  to save the printout as a file.
 - b. Save the file as a PDF and name the file **[your initials]-05-20-B**.
 - c. Depending on your class procedures, print or turn in the PDF file.
 - d. Close **Print Preview**.
- Depending on your class procedures, print or turn in the Word file.

Exercise 5-21

As you learned before, using the **Table Analyze Wizard** can help identify how best to change your table structure. Use the analyzer and make any appropriate changes to the database. Document any changes that you make.

1. The database **[your initials]EcoMed-05** is required to complete this exercise.
 - a. Open and enable content for **[your initials]-EcoMed-05**.
2. Create a Lookup field by following these steps:
 - a. From the **Database Tools** tab, in the **Analyze** group, click the **Analyze Table** .
 - b. In the **Table Analyze Wizard**, click **Next** twice.
 - c. From the list of Tables, select **tblFacilities**. Click **Next**.
 - d. Verify that the option **Yes, let wizard decide** is selected. Click **Next**.

- e. In **Table3**, click and drag the field **FacType** back into **Table1** under the field **FacName**.
 - f. Double-click **Table1** and name the table **tblFac**.
 - g. Double-click **Table2** and name the table **tblManageType**. Click **Next**.
 - h. In the table **tblFac**, select the field **FacilitiesID**. In the upper right corner click the Primary key button . Click **Next**.
 - i. No corrections are needed. Click **Next**. Click **Yes**.
 - j. Verify that the option **No, don't create a query**. Click **Finish**.
3. Rename a column in **Datasheet View** by following these steps:
 - a. Close the table **tblManageType**.
 - b. Open **tblFac** in **Datasheet View**.
 - c. Select the column header for the field **Lookup to tblManageType**.
 - d. From the **Fields** tab, in the **Properties** group, click **Name & Caption** .
 - e. Rename the **Name** to **ManageTypeID** and the **Caption** to **Manage Type**.
 - f. Save and close the table.



Assessment

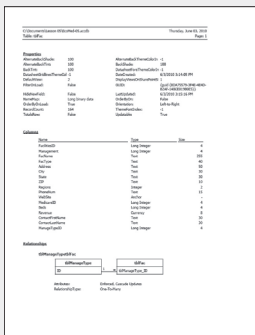
- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.



-OR-



- Create a **Database Documenter** report by following these steps:
 - a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter** .
 - b. From the **Documenter** dialog box, click **tblFac** check box.
 - c. Click **Options**.
 - d. For **Table**, include **Properties** and **Relationships**.
 - e. For **Fields**, select the option **Names, Data Types, and Sizes**.
 - f. For **Indexes**, select the option **Nothing**.
 - g. Click **OK** twice to go to **Print Preview**.
- Save a **Database Documenter** report by following these steps:
 - a. From the **Print Preview** tab, in the **Data** group, click **PDF or XPS**  to save the printout as a file.
 - b. Save the file as a PDF and name the file *[your initials]-05-21-A*.
 - c. Depending on your class procedures, print or turn in the PDF file.
 - d. Close **Print Preview**.



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Lesson Applications

Exercise 5-22

EcoMed employees take days off from work as both vacation and sick days. To display the days taken when the employee uses leave, you will need to link the table storing the employee information to the table storing the leave days. Create a relationship and document any changes that you make.

1. Using the database, *[your initials]-EcoMed-05*, make sure that all content is enabled.
2. Open the Relationships window and clear the layout.
3. Add **tblEmployees** and **tblLeaveDays** to the window. Size the Field Lists so that all fields are visible, and identify the common field.
4. Create a **One-To-Many** relationship with referential integrity between the tables. Save and close the layout.
5. Create a Relationship Report for these two tables.
6. Save the report as **rptRelEmpLeave**.

Assessment

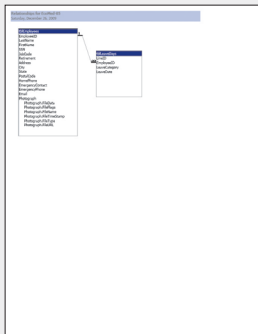


- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Save the **Relationship Report** as a PDF file named *[your initials]-05-22-A*.
- Depending on your class procedures, print or turn in the PDF file.
- Close **Print Preview**.



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1 Page

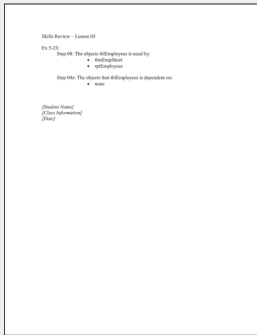
Exercise 5-23

Now that a relationship has been created between two tables, insert a subdatasheet into the employees table using the appropriate field as the link. After creating the subdatasheet, identify the dependencies for the table.

1. Using the database *[your initials]-EcoMed-05*, make sure that all content is enabled.
2. Open **tblEmployees** in **Design View**.

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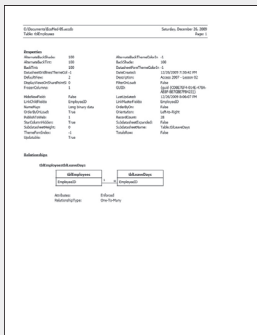


3. Create a subdatasheet to **tblLeaveDays**.
4. Create a Word document called **[your initials]-05-23-A** and record the answers to the following questions:
5. What queries, forms, and reports depend on **tblEmployees**?
6. On what queries, forms, and reports does **tblEmployees** depend?
7. Include your name, class information, and date.

Assessment

- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.
- According to your class procedures, print or turn in the Word file.

-OR-



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1 Page

- Create a **Database Documenter** report for **tblEmployees** using the following settings:
 - Include for Table: **Properties, Relationships** only
 - Include for Fields: **Nothing**
 - Include for Indexes: **Nothing**
- Save the **Documenter** report as a PDF file named **[your initials]-05-23-B**.
- Depending on your class procedures, print or turn in the Word file **[your initials]-05-23-A**.
- Depending on your class procedures, print or turn in the PDF file **[your initials]-05-23-B**.

Exercise 5-24

EcoMed employees are classified as either salaried or hourly employees. You have been directed to modify the pay table to have a Lookup field for these two pay classifications.

1. Using the database **[your initials]-EcoMed-05**, make sure that all content is enabled.
2. In **tblPay**, add a Lookup field to the end of the table.
3. In the Lookup wizard, you will type the values **Hourly** and **Salary**.
4. Limit entries to the list.
5. Name the new field **PayType**.
6. Do not allow users to edit the list.

- Change the **PayType**'s field size to **6**.
- The values in the field **PayClass** are "1" and "2." The "1" represents salary, and the "2" represents hourly. Add values to the new field **PayType**. In each record where the **PayClass** is "1", enter **Salary** for the **PayType** field. In each record where the **PayClass** is "2", enter **Hourly** for the **PayType** field.
- Delete the field **PayClass** and sort the table in ascending order by **Employee ID**.

Assessment



- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Create a **Database Documenter** report for **tblPay** using the following settings:

- Include for Table: **None**
- Include for Fields: **Names, Data Types, Sizes, and Properties**
- Include for Indexes: **Nothing**

- Save the **Documenter** report as a PDF file named **[your initials]-05-24-A**.

- According to your class procedures, print or turn in the PDF file.

- Save the **Datasheet View** of **tblPay** in portrait layout as a PDF. Name the file **[your initials]-05-24-B**.

- According to your class procedures, print or turn in the PDF file.

05-24-A.pdf
2 Pages

05-24-B.pdf
1 Page

Exercise 5-25 ♦ Challenge Yourself

As you learned before, using the **Table Analyzer Wizard** can help identify how to best change your table structure. Use the analyzer on the **employees** table and make any appropriate changes to the database. **Document** any changes that you make.

- Using the database **[your initials]-EcoMed-05**, make sure that all content is enabled.
- Using the **Table Analyzer Wizard**, select **tblEmployees** but do not let the wizard decide which fields are to be used.
- Create a new table named **tblJobCodes** by dragging the **JobCode** field out of **Table1**.



TIP

The Wizard doesn't always pick the field you want, so you can always drag the unwanted field back to the main table and drag out of the main table the field that you do want.

4. Rename **Table1** to **tblEmp**.
5. In **tblEmp**, rename the new Lookup field **JobCodeID** and its **Caption Job Code**.
6. In **tblJobCodes**, set the **ID** field's **Caption** property to **Job Code ID**.

Assessment



- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-

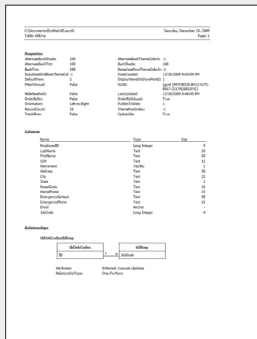


- Create a **Database Documenter** report for **tblEmp** using the following settings:

- Include for Table: **Properties, Relationships** only
- Include for Fields: **Names, Data Types and Sizes**
- Include for Indexes: **Nothing**

- Save the **Documenter** report as a PDF file named **[your initials]-05-25-A**.

- According to your class procedures, print or turn in the PDF file.



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On Your Own

In these exercises you work on your own, as you would in a real-life work environment. Use the skills you've learned to accomplish the task—and be creative.

Exercise 5-26

Review the designs for the three databases you created in Exercises 4-29 through 4-31. Select one of the three databases to continue developing. Identify two additional tables you might need to make your database designs more useful. The relationships between the main table and the two additional tables should be One-To-Many. On a blank sheet of paper, list the field names, data types, field sizes, and attributes for the two new tables. Identify the common fields among the three tables. Continue to Exercise 5-27.

Exercise 5-27

Create the two tables you designed in Exercise 5-26. Add appropriate field properties to each table to make your design more useful. Create One-To-Many relationships with referential integrity between the tables. Test the referential integrity of the tables. Add at least five records to each empty table. Print the datasheet and a database documenter report each table. Continue to Exercise 5-28.

Exercise 5-28

Search the Internet for images or graphics you might wish to use in your database. Design and create a new table to store the images. Create an appropriate relationship between this new table and the main table. Insert the images into the new table. Print a Relationship Report displaying all four tables. Submit to your instructor the printouts from Exercises 5-27 through 5-28, along with your field list from 5-26. Keep a copy of the database you modified in this exercise. You will use it for the On Your Own exercises in subsequent lessons.