

## 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 dynamic recordset automatically changes its underlying data source.
- T F 2. You can build criteria by using logical and relational operators.
- T F 3. You cannot use a query as the source of records for another query.
- T F 4. You can add a field to a query in **Design View** by double-clicking the field name in the Field List window.
- T F 5. **Count** and **Sum** are types of aggregate functions.
- T F 6. Before using the **Top Values** property, you must sort a dynaset by its primary key.
- T F 7. In the design grid, **OR** criteria are entered in the same row.
- T F 8. The criteria “is not null” finds records with a blank or empty field.

### Short Answer Questions

Write the correct answer in the space provided.

1. What is the grid name of the lower pane of a query in which you sort data and enter criteria?

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2. In what view do you see the dynaset of a query?

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3. What property displays the highest or lowest values?

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4. What type of criteria do you use when you want two conditions to be true at the same time?

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5. What is the operation of joining two or more character strings end to end?

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6. In Access, what keyword(s) means is “blank” or is “empty”?

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7. When you key a wildcard in a query, what operator does Access use to compare your criteria with each record?
- 

8. What symbol represents “not equal”?
- 

## 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.

- When an expression has two or more math operators, the Expression Builder follows the mathematical order of operations rules. List these rules and the symbols used with them, and give examples of their use.
- AND and OR criteria are common to database, programming, and spreadsheets. You can build a logic table to help you visualize what happens with two criteria in these situations. Complete Figure 6-32 (on a separate sheet of paper) to show if the result is True or False (a match or no match).

**Figure 6-32**  
Logic table




AND			OR		
First Criterion	Second Criterion	Answer ? (T/F)	First Criterion	Second Criterion	Answer ? (T/F)
T	AND T	=	T	OR T	=
T	AND F	=	T	OR F	=
F	AND T	=	F	OR T	=
F	AND F	=	F	OR F	=

## Skills Review

### Exercise 6-22

You have been asked to create a query to display the names of employees for a specific job code. Follow these steps to create the query.

- Open a database by following these steps:
  - Locate and open the **Lesson 06** folder.
  - If you already have a copy of *[your initials]-EcoMed-06*, skip to step 1d.
  - Make a copy of **EcoMed-06** and rename it *[your initials]-EcoMed-06*.
  - Open and enable content for *[your initials]-EcoMed-06*.

2. Use the Simple Query Wizard by following these steps:
  - a. From the **Create** tab, in the **Queries** group, click **Query Wizard** .
  - b. In the **New Query** dialog box, double-click **Simple Query Wizard**.
  - c. From the **Tables/Queries** list box, choose **Table: tblEmployees**.
  - d. In the **Available Fields** list, double-click **LastName**, **FirstName**, and **JobCode**.
  - e. From the **Tables/Queries** list box, choose **Table: tblJobCodes**.
  - f. In the **Available Fields** list, double-click **JobTitle**.
  - g. From the **Tables/Queries** list box, choose **Table: tblPay**.
  - h. In the **Available Fields** list, double-click **EmpPay**.
  - i. Click **Next**. The default type of select query is **Detail**. Click **Next**.
  - j. Delete the suggested title and key **qryEmpPay**. Click **Finish**.
3. Add criteria to fields by following these steps:
  - a. Switch to **Design View**.
  - b. In the **Criteria** row for **JobCode**, key **mf03**, press , and key **mf04**.
  - c. From the **Design** tab, in the **Results** group, click **Run** .
  - d. Switch to **Design View**.
4. Sort and hide a field by following these steps:
  - a. In the **Sort** row for **JobTitle**, click the drop-down arrow and choose **Ascending**.
  - b. In the **Show** row for **JobCode**, remove the checkmark. This field is only needed for criteria, so there is no need to include it in the final dynaset.
  - c. Switch to **Datasheet View**.
  - d. Save and close the query.

### Assessment



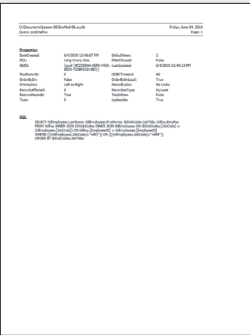
- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Create a **Database Documenter** report for **qryEmpPay** following these steps:

- a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter**.
- b. In the **Documenter** dialog box, click the **Queries** tab, and select **qryEmpPay**. Click **Options**.
- c. For **Query**, include **Properties** and **SQL**.
- d. From the **Include for Fields** section, choose **Nothing**.
- e. From the **Include for Indexes** section, choose **Nothing**.
- f. Click **OK** twice to go to **Print Preview**.



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- Save a **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]-06-22-A**.
- c. Depending on your class procedures, print or turn in the PDF file.
- d. Close **Print Preview** and the query.

## Exercise 6-23

**Create a query to display the names of all the interns. Include the names of the intern identification number and concatenate the first and last names together.**

1. The database **[your initials]-EcoMed-06** is required to complete this exercise.
  - a. Open and enable content for **[your initials]-EcoMed-06**.
2. Create the query by following these steps:
  - a. From the **Create** tab, in the **Queries** group, click **Query Design** .
  - b. In the **Show Table** dialog box, double-click **tblInterns** and click **Close**.
  - c. Resize the Field List so all fields can be seen.
  - d. From the **tblInterns** Field List, double-click **InternID**, **LastName**, and **FirstName**.
  - e. From the Quick Access toolbar, click **Save** . Name the query **qryIntern**.
3. Add a calculated field to a query by following these steps:
  - a. In the design grid, click in the fourth column in the **Field** row.
  - b. From the **Design** tab, in the **Query Setup** group, click **Builder** .
  - c. In the **Expression Categories** panel, double-click **LastName**.
    - d. In the Expression box after **[LastName]**, key **& ", " &**.
    - e. In the **Expression Categories** panel, double-click **FirstName**. Click **OK**.
    - f. In the calculated field, modify the alias by replacing "Expr1" with **Full Name**.
4. Sort and delete fields by following these steps:
  - a. In the **Sort** row for **Full Name**, click the drop-down arrow and choose **Ascending**.
  - b. In the design grid, select both **LastName** and **FirstName** fields. Press **Delete** to remove the fields from the design grid.
  - c. From the Quick Access toolbar, click **Save** .
  - d. From the **Design** tab, in the **Results** group, click **Run** .
  - e. Save and close the query.



### NOTE

Make sure that you add a space after the comma inside of the quotes.

## Assessment



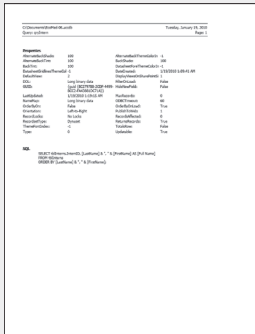
- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Create a **Database Documenter** report for **qryIntern** following these steps:
  - a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter**.
  - b. In the **Documenter** dialog box, click the **Queries** tab and select **qryIntern**. Click **Options**.
  - c. For **Query**, include **Properties** and **SQL**.
  - d. From the **Include for Fields** section, choose **Nothing**.
  - e. From the **Include for Indexes** section, choose **Nothing**.
  - f. 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]-06-23-A**.
  - c. Depending on your class procedures, print or turn in the PDF file.
  - d. Close **Print Preview**.




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## Exercise 6-24

You have been asked to create a query to display the number of beds per facility, but only for nonprofit facilities.

1. The database **[your initials]-EcoMed-06** is required to complete this exercise.
  - a. Open and enable content for **[your initials]-EcoMed-06**.
2. Create a query in **Design View** by following these steps:
  - a. From the **Create** tab, in the **Queries** group, click **Query Design** .
  - b. In the **Show Table** dialog box, double-click **tblFacilities** and **tblManageType**. Click **Close**.
  - c. Resize the Field List so all fields can be seen.
  - d. From the **tblFacilities** Field List, double-click **FacName** and **Beds**.
  - e. From the **tblManageType** Field List, double-click **ManageType**.
  - f. From the Quick Access toolbar, click **Save** . Name the query **qryNonProfitBeds**.
3. Add a criterion to a field by following these steps:
  - a. In the **Criteria** row for **ManageType**, key **\*nonprofit\***.

4. Sort and show the top 5 percent of records by following these steps:
  - a. In the **Sort** row for **Beds**, click the drop-down arrow and choose **Descending**.
  - b. From the **Design** tab, in the **Query Setup** group, click **Return**  and then choose **5%**.
  - c. Switch to **Datasheet View** to see the resulting 6 records.
  - d. Save and close the query.

## Assessment



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


-OR-

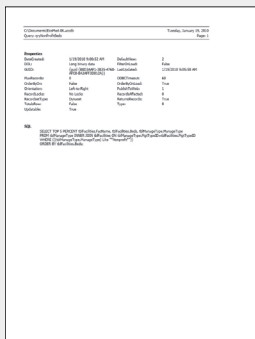


- Create a **Database Documenter** report for **qryNonProfitBeds** following these steps:

- a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter**.
- b. In the **Documenter** dialog box, click the **Queries** tab and select **qryNonProfitBeds**. Click **Options**.
- c. For **Query**, include **Properties** and **SQL**.
- d. From the **Include for Fields** section, choose **Nothing**.
- e. From the **Include for Indexes** section, choose **Nothing**.
- f. 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]-06-24-A**.
- c. Depending on your class procedures, print or turn in the PDF file.
- d. Close **Print Preview**.







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## Exercise 6-25

**Create a PivotChart to display the number of leave dates taken by employees.**

1. The database **[your initials]-EcoMed-06** is required to complete this exercise.
  - a. Open and enable content for **[your initials]-EcoMed-06**.
2. Create a query in **Design View** by following these steps:
  - a. From the **Create** tab, in the **Queries** group, click **Query Design** .
  - b. In the **Show Table** dialog box, double-click **tblEmployees** and **tblLeaveDays**. Click **Close**.

- c. Resize the Field List so all fields can be seen.
  - d. From the **tblEmployees** Field List, double-click **JobCode**.
  - e. From the **tblLeaveDays** Field List, double-click **LeaveDate** and **LeaveCategory**.
  - f. From the Quick Access toolbar, click **Save** . Name the query **qryEmpLeaveChart**.
3. Add a criterion by following these steps:
    - a. In the **Criteria** row for **JobCode**, key **m\***.
  4. Modify a PivotChart view by following these steps:
    - a. Switch to **PivotChart View**. From the **Chart Field List**, click the Expand button for **LeaveDate By Month**. Drag the **Months** into the **Drop Category Fields Here** zone (bottom of the chart) of the PivotChart.
    - b. From the **Chart Field List**, drag the **LeaveCategory** into the **Drop Series Fields Here** zone (right of the chart) of the PivotChart.
    - c. From the **Chart Field List**, drag the **LeaveCategory** into the **Drop Data Fields Here** zone (middle of the chart) of the PivotChart. The default function for this data type is **Count**.
    - d. Close the **Chart Field List**. From the **Design** tab, in the **Tools** group, click **Property Sheet** .
    - e. On the PivotChart, click the Value Axis Title (left of the chart). In the **Properties** dialog box, click the **Format** tab. Change the **Caption** property to **Number of Days**.
    - f. On the PivotChart, click the Category Axis Title (bottom of the chart). In the **Properties** dialog box, change the **Caption** property to **Year to Date**. Close the **Properties** dialog box.
    - g. From the **Design** tab, in the **Show/Hide** group, click **Drop Zone**  to remove the zone markers.
    - h. From the **Design** tab, in the **Show/Hide** group, click **Legend**  to add the **Legend** to the PivotChart.
    - i. Save the query.

### Assessment






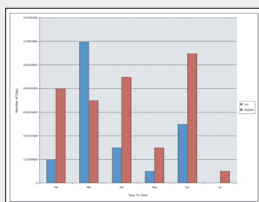
- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-

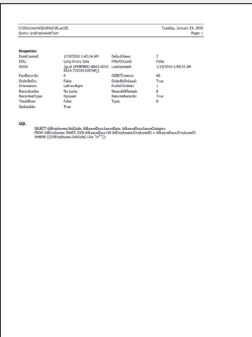


- Save a query's **PivotChart View** by following these steps:


- a. Click the **File** tab. From the **Print** option, choose **Print Preview** .
- b. From the **Print Preview** tab, in the **Page Layout** group, click **Landscape** .
- c. From the **Print Preview** tab, in the **Data** group, click **PDF or XPS**  to save the printout as a file.
- d. Save the file as a PDF and name the file **[your initials]-06-25-A**.
- e. Depending on your class procedures, print or turn in the PDF file.
- f. Close **Print Preview** and the query.



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- Create a **Database Documenter** report for **qryEmpLeaveChart** following these steps:
  - a. From the **Database Tools** tab, in the **Analyze** group, click **Database Documenter**.
  - b. In the **Documenter** dialog box, click the **Queries** tab and select **qryIntern**. Click **Options**.
  - c. For **Query**, include **Properties** and **SQL**.
  - d. From the **Include for Fields** section, choose **Nothing**.
  - e. From the **Include for Indexes** section, choose **Nothing**.
  - f. 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]-06-25-B**.
  - c. Depending on your class procedures, print or turn in the PDF file.
  - d. Close **Print Preview**.



## Lesson Applications

### Exercise 6-26

Create a query to display the name of the management company, the name of the facility, and the state in which the facility is located. Display only records from region 2.

1. Open and enable *[your initials]-EcoMed-06*.
2. Launch the **Simple Query Wizard**.
3. From **tblManagement** use the fields **ManageName**.
4. From **tblFacilities** use the fields **FacName**, **State**, and **Region**.
5. Save the query as **qryRegion2**.
6. Sort the dynaset in ascending order by **ManageName**.
7. Only show records that are from **Region 2**.
8. Review the 9 records. Save and close the query.

### 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 **qryRegion2** using the following settings:

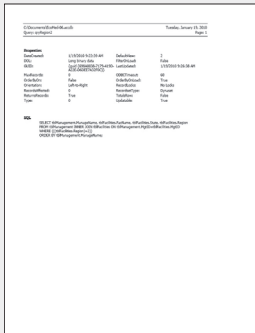
- Include for Query: **Properties, SQL**
- Include for Fields: **Nothing**
- Include for Indexes: **Nothing**

- Save the **Documenter** report as a PDF file named *[your initials]-06-26-A*.  
- According to your class procedures, print or turn in the PDF file.

### Exercise 6-27

Create a query to display the names and addresses of your employees. Display the city, state, and zip code of the employees in a format that can be used on mailing labels.

1. Using *[your initials]-EcoMed-06*, create a new query in **Design View**.
2. From **tblEmployees**, add the fields **FirstName**, **LastName**, **Address**, **City**, **State**, and **PostalCode**.
3. Save the query as **qryEmpAddress**.
4. Create a calculated field that will concatenate **FirstName** and **LastName** with a space between the fields.



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5. Change the alias of the first calculated field to **FullName**.
6. Create a calculated field that will concatenate **City**, **State**, and **PostalCode** using “,” between **City** and **State** and two spaces between **State** and **PostalCode**.
7. Change the alias of the second calculated field to **Address2**.
8. Sort the dynaset in descending order by **LastName**.
9. Display only the fields **FullName**, **Address**, and **Address2** in this order.

## Assessment



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

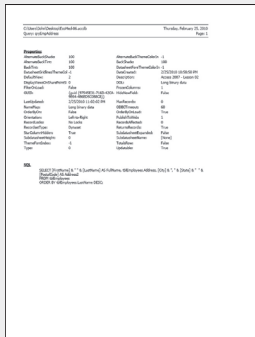
-OR-



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

- Include for Query: **Properties, SQL**
- Include for Fields: **Nothing**
- Include for Indexes: **Nothing**

- Save the **Documenter** report as a PDF file named **[your initials]-06-27-A**.  
- According to your class procedures, print or turn in the PDF file.



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## Exercise 6-28

**Create a query to display names and job codes of employees. Also include the leave categories and leave dates. Convert the query to a PivotChart.**

1. Using **[your initials]-EcoMed-06**, create a new query in **Design View**.
2. Include **tblEmployees** and **tblLeaveDays**.
3. From **tblEmployees**, add **LastName**, **FirstName**, and **JobCode**.
4. From **tblLeaveDays**, add **LeaveCategory** and **LeaveDate**.
5. Name the query **qryLeaveByJob**.
6. Create a PivotChart, using the following settings:
  - Add **JobCode** to the x-axis.
  - Add **LeaveCategory** to the **Legend**. Add the **Legend** to the chart.
  - Add **LeaveDate** to the **Data** area of the chart with a default function of **Count**.
  - Rename the x-axis **Job Codes-[your full name]**.
  - Rename the y-axis to **Count**.
  - Remove the drop zones.

## Assessment

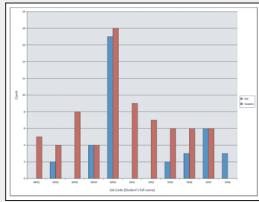


- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Save the **PivotChart View** in Landscape as a PDF. Name the file **[your initials]-06-28-A**.  
- According to your class procedures, print or turn in the PDF file.

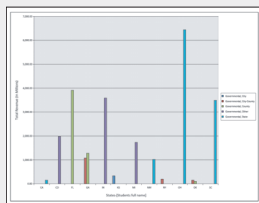


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## Exercise 6-29 ♦ Challenge Yourself

Create a PivotChart to the revenue of facilities in relationship to the type of management structure to which the facility reports.

- Using **[your initials]-EcoMed-06**, create a new query in **Design View**.
- Include **tblManagement**, **tblFacilities**, and **tblManageType**.
- From **tblManagement**, add **ManageName**.
- From **tblManageType**, add **ManageType**.
- From **tblFacilities**, add **FacName**, **State**, and **Revenue**.
- Only show records that have any governmental **ManageType**.
- Save the query as **qryGovRevChart**.
- Add a calculated field named **Rev** that will divide the **Revenue** by 1 million (1,000,000).
- Create a PivotChart, using the following settings:
  - Add **State** to the x-axis.
  - Add **ManageType** to the **Legend**. Add the **Legend** to the chart.
  - Add **Rev** to the **Data** area with a default function of **SUM**.
  - Rename the x-axis to **States-[your full name]**.
  - Rename the y-axis to **Total Revenue (In Millions)**.
  - Remove the drop zones.



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## Assessment

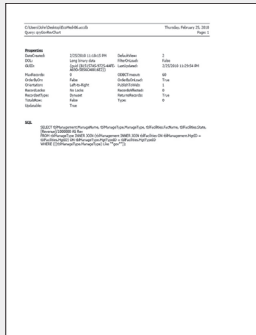


- Save and close the query.  
- According to your classroom procedure, turn in your database only when you have completed all assigned exercises.

-OR-



- Save the **PivotChart View** in Landscape as a PDF. Name the file **[your initials]-06-29-A**.  
- According to your class procedures, print or turn in the PDF file.



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- Save and close the query.
- Create a **Database Documenter** report for **qryGovRevChart** using the following settings:
  - Include for Query: **Properties, SQL**
  - Include for Fields: **Nothing**
  - Include for Indexes: **Nothing**
- Save the **Documenter** report as a PDF file named *[your initials]-06-29-B*.
- According to your class procedures, print or turn in the PDF file.

## 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 6-30

Review the design of the database that you modified in Exercise 5-28. On a sheet of paper, list information that a user of your database might need. Design three queries that might provide the information needed. Use a variety of query types. Write your name and Exercise 6-30. Before proceeding to the next exercise, have your instructor approve your database design and intentions. Continue to the next exercise.

### Exercise 6-31

Create the queries you designed in Exercise 6-30. Enter at least five additional records into each table of the database. Print the tables. Review the design of the database. On a sheet of paper, design a dynaset that incorporates data from two or more tables. Identify the type of query needed to create the dynaset. On the same sheet of paper, list all fields to be used in the query. For each field, include the name of the table from which the field originates. Identify the key fields and any foreign fields. Write down the criteria that would be required for the query. Name the query appropriately. Write your name and Exercise 6-31 on each sketch. Continue to the next exercise.

### Exercise 6-32

Based on the designs that you created in Exercises 6-30 and 6-31, create the queries. Print the definitions for each query. Print a copy of the dynaset for each query. Submit to your instructor the designs and printouts that you created for Exercises 6-30 through 6-32. Keep a copy of the database you modified in this exercise. You will use it for the On Your Own exercises in subsequent lessons.