Querying a Database

ne of the main goals of a database is to organize data so that information can be located and retrieved quickly. People in all types of businesses retrieve stored data and information daily, often at a moment's notice. In this chapter, you will search information that is stored in tables in a relational database and extract records that meet specific criteria using a query, a database object used to locate records based on the conditions you set.

LEARNING OBJECTIVES

- Create, save, and run select queries
- Create select queries using multiple tables
- Use simple query criteria
- Use AND and OR criteria in queries
- Use wildcard characters in query criteria
- Sort query results
- Create and format a calculated field

CHAPTER TIMING

- Concepts/Develop Your Skills: 2 hrs 45 mins
- Self-Assessment: 15 mins
- Total: 3 hrs

PROJECT: USING QUERIES TO GET Answers

You have been asked to query the Winchester Web Design database and compile two separate customer lists. The lists will be used to notify all past clients of updates to their website contact forms. The first list will include only the first and last name of the clients and their email address. The second list will include the first and last name of the clients and their mailing addresses, sorted by ZIP code. Additionally, you have been asked to build queries that instantly calculate the total income from all the Winchester Web Design services, and from specific areas such as blogs or shopping carts.

Select Queries

A select query allows you to select records from one or more database tables based on criteria that you set. A select query asks a question, such as, *What are the customer addresses?* or *How much money did the company make last month?* The answer to the question is a set of records. A select query is basically a database inquiry that selects only the records you want to see or edit. The easiest way to create a query is with the Query Wizard.

Query Features

- A query functions like a saved question you ask a database.
- A query produces a subset of data from one or more tables.
- When you edit data in query results, you are actually editing the data stored in the source tables.
- Queries are dynamic objects that display up-to-date data from tables.
- Queries can be used to create forms and reports with fields drawn from multiple tables.

DEVELOP YOUR SKILLS: A3-D1

In this exercise, you will use the Query Wizard to create a select query that generates a customer email list.

- 1. Open A3-D1-WinWebDesign from your Access Chapter 3 folder and save it as A3-D1-WinWebDesignRevised.
- 2. Choose Create→Queries→Query Wizard
- **3.** Click **OK** to accept the Simple Query Wizard.

4. Follow these steps to build the query:

	Which	fields do you wa	nt in your query?		
	You car	n choose from m	ore than one tab	le or query.	
Tables/Queries					
Table: Customers		\sim			
<u>A</u> vailable Fields:	G	Selected Fields	:		
CustLastName CustFirstName CustStreetAddress CustCity					
CustState CustZIP CustPhone CustEmail	× <				
	Cancel	< <u>B</u> ack	<u>N</u> ext >	Einish	

- A Make sure the **Customers** table is chosen in the Tables/Queries list. When building a query, you can use multiple tables and even existing queries.
- B Choose the **CustLastName** field from the Available Fields list.
- Click the Add > button to add it to the Selected Fields list.
- Now add the **CustFirstName** and **CustEmail** fields.
- Click Next.
- 5. Type Customers Email List as the query title.
- 6. Make sure the **Open the Query to View Information** option is chosen and click the **Finish** button.

	Customers Email List						
	Last Name 👻	First Name 🗸	Email 👻				
	Abrams	John	JPAbrams@email.com				
	Anders	Mark	AndersM@email.com				
	Blaser	Helen	BlasingHel@email.com				
	Davis	Peter	DavisAngie@email.com				
any and a second of the second s							

7. Click the **Close** × button to the right of the *Customers Email List* tab to close the query.

Creating a Select Query Using Query Design View

Some queries display just a few fields but report on every single record in the table. That may not be a problem for a small table, but when thousands of records and multiple tables are involved, it is often necessary to choose only specific records by setting precise criteria. Using Query Design View, Access allows you to:

- Select fields from multiple tables
- Locate records using criteria from one or more fields
- Perform calculations
- Sort query results and show or hide fields in query results

View the video "Query Design View."

DEVELOP YOUR SKILLS: A3-D2

You have already created an email list for the Winchester Web Design customers and now need one for the company's employees. In this exercise, you will create a query to select fields from the Employees table in the Winchester Web Design database and then rearrange the columns in the query grid.

- **1.** Choose **Create** \rightarrow **Queries** \rightarrow **Query Design to** display the query design grid.
- 2. Choose the **Employees** table and click the **Add** button.
- **3.** Close the Show Table box and close the Property Sheet box if it is open.
- **4.** Double-click the **EmpFirstName** field in the **Employees** table to add it to the grid.
- **5.** Now add the **EmpLastName**, **EmpPhone**, and **EmpEmail** fields to the grid by either double-clicking or dragging them.

Field:	EmpFirstName	EmpLastName	EmpPhone	EmpEmail
Table:	Employees	Employees	Employees	Employees
Sort:				
Show:				
Criteria:				
or:				

- **6.** Choose **File** \rightarrow **Save** or click the **Save** button on the Quick Access toolbar.
- 7. Type Employee Contact Info as the query name and click OK.
- **8.** Click the **Run** ! button.
- **9.** Choose **Home** \rightarrow **Views** \rightarrow **Design View** to switch to Design View.

10. Follow these steps to rearrange the EmpFirstName and EmpLastName fields:



- Click the **EmpLastName** column heading to select the column. The mouse pointer will change to a white arrow, indicating you can now move the column.
- Drag the **EmpLastName** column to the left of the EmpFirstName column until the thick vertical bar is positioned as shown here.
- **(** Release the mouse button to complete the rearrangement.
- **11. Run** ! the query.
- **12.** Close the query and save the changes.

Designing a Query Using Multiple Tables

Until now, the datasheets you have worked with have displayed data from only one table. There will be times when you need to view data contained in different tables within the same database. Queries allow you to do this.

Choosing Fields to Include in a Query

When you build a query, you select only those tables and fields that you want to display in the query results datasheet and leave out those fields that have no impact on the data you want to view or that are confidential. By specifying only certain tables and fields in a database and displaying only the desired fields in a query, you can create a report or a form that only presents pertinent data.

Selecting a Field That Appears in Multiple Tables

Multiple tables are only effective in a query if the tables are related. Sometimes the same ID field occurs as a primary key in one table and as a foreign (or secondary) key in another table. If this occurs, always use the table with the primary key in your query.





DEVELOP YOUR SKILLS: A3-D3

In this exercise, you will create a multitable query to track the Winchester Web Design invoices by invoice number using Query Design view.

- **1.** Choose **Create** \rightarrow **Queries** \rightarrow **Query Design w** to display the query design grid.
- 2. Double-click the Invoices, Invoice Details, and Products tables to add them to the query.
- **3.** Close the Show Table box.
- **4.** Double-click the **InvNum**, **InvDate**, and **EmpID** fields in the Invoices table to add those fields to the query grid.
- 5. Add the ProdDescription and Price fields from the Products table.
- 6. Add the **Qty** field from the **Invoice Details** table.

		1		1		
Field:	InvNum	InvDate	EmpID	ProdDescription	Price	Qty
Table:	Invoices	Invoices	Invoices	Products	Products	Invoice Details
Sort:						
Show:	\sim	\checkmark	\checkmark	\checkmark	\checkmark	
Criteria:						
or:						

7. Click the **Sort** box for the InvNum field, click the menu button *▼*, and choose **Ascending**.

Field:	InvNum	InvDate
Table:	Invoices	Invoices
Sort:	Ascending	
Show:		
Criteria:		
or:		

- 8. Save the database and save the query as **InvoicesList** and click **OK**.
- **9.** Choose **Design** \rightarrow **Results** \rightarrow **Run** ! to run the query.

Using Criteria in Queries

Queries let you specify criteria, which are conditions that field values must meet. Only records meeting the criteria are returned when the query is run.

			(
Field:	InvNum	InvDate	EmpID	ProdDescription	Price	Qty
Table:	Invoices	Invoices	Invoices	Products	Products	Invoice Details
Sort:	Ascending					
Show:			\sim	\checkmark		
Criteria:			'JFW'			
or:						

In this query, the EmpID criteria is set to JFW.

4	InvNum -	Invoice Date 👻	Emp ID 👻	Description -	Price 🔹	Qty -
	1	3 /15/2012	JFW	Secondary Page	\$200.00	6
	1	3/15/2012	JFW	Image, Custom Designed	\$40.00	11
	1	3/15/2012	JFW	Home Page, Nav, CSS, Design	\$400.00	1
	5	6/19/2012	JFW	Image, Custom Designed	\$40.00	9

Only records where EmpID is JFW are returned.

Criteria are commonly used with text, numeric, currency, and date fields. The following table provides a few examples of how criteria are used.

TYPES OF CRITERIA		
Field Type	Criteria	Examples of How Records Are Returned
Text	Smith	Last name is Smith
	>=Smith	Last names are from Smith through the end of the alphabet
	Not Smith	Last name is not Smith
Numeric & Currency	> 123	Numeric value is greater than 123
	> =123	Numeric value is greater than or equal to 123
Date	Date()	Date is today's date
	< Date() - 30	The Date field is 30 days or more prior to today's date

DEVELOP YOUR SKILLS: A3-D4

In this exercise, you will add criteria to the query grid and run the query.

- **1.** If necessary, open the **InvoicesList** query and switch to **Design View**.
- **2.** Click the **Criteria** box for the EmpID field, type **JFW**, and tap **Enter**. Access will apply quotation marks indicating this is a literal value.

Field:	InvNum	InvDate	EmpID
Table:	Invoices	Invoices	Invoices
Sort:	Ascending		
Show:			
Criteria:			"JFW"
or:			

- **3.** Choose **Design** \rightarrow **Results** \rightarrow **Run** ! to run the query.
- **4.** Close the query and choose **No** when prompted to save the changes.

Wildcard Characters

Wildcard characters are used to locate records that have similar but not identical data. They help you locate records that match a pattern. For example, you might want to find all customers with last names that begin with the letter *B* or all products that begin with the word *Blog*.

WILDCARD CHARACTERS	
Common Wildcard Symbols	How They Are Used
Asterisk (*)	Substitutes for a group of characters that appear at the position of the asterisk Example : R^* in the last name field will locate all last names beginning with R regardless of how many characters make up the name. In this case, <i>Rogers, Rich,</i> and <i>Rodriquez</i> would all appear in the results datasheet.
Question mark (?)	Substitutes for a single character that might appear at the position of the question mark Example : <i>m</i> ?s will locate records containing values such as <i>mrs</i> , <i>ms</i> , and <i>mbs</i> .
Open/close brackets []	Matches text or individual characters placed within the brackets individually Example : <i>ca[rt]</i> will find <i>cat</i> and <i>car</i> but not <i>cab</i> or <i>cad</i> .

AND and OR Criteria

In some cases, you may need to locate records that meet multiple criteria. This can be done using AND and OR conditions. For example, you may want to locate all records where the employee is web certified AND lives in Sarasota. Or you may want to locate all employees who live in Sarasota OR Bradenton.

CustID	CustFirstName	CustLastName	CustCity
Customers	Customers	Customers	Customers
			"Sarasota"
			"Bradenton"
	CustID Customers	CustID CustFirstName Customers Customers	CustID CustFirstName CustLastName Customers Customers Customers

Create an OR condition by adding a second criterion to the Or row of a field.

Field:	InvNum	InvDate	ProdDescription	Price	Qty
Table:	Invoices	Invoices	Products	Products	Invoice Details
Sort:	Ascending				
Show:				\checkmark	\checkmark
Criteria:			("Image")		>10
			\smile		\smile

Create an AND condition by adding another criterion to a different field on the Criteria row.

DEVELOP YOUR SKILLS: A3-D5

In this exercise, you will use wildcards to locate variable data and set multiple criteria in a query to find out which customers have gotten blogs and which customers have added more than ten images at a time to their websites.

1. Open the Invoices Query query in Design View.

2. Follow these steps to use wildcard characters and to use AND and OR criteria:

Field:	InvNum	InvDate	ProdDescription	Price	Qty	LineTotal: [Qty]*[Price]
Table:	Invoices	Invoices	Products	Products	Invoice Details	
Sort:						
Show:	\checkmark	\checkmark		\checkmark		\checkmark
Criteria:			Like "Blog*"			
or:			Like "Image*"		>10	

- Click in the **ProdDescription Criteria** box, type **Blog***, and tap **Enter**
- B Click in the ProdDescription **Or** box, type **Image***, and tap **Enter**.
- Click in the Qty **Or** box and type > 10. Be sure to type in the same row as *Like "Image*"* (the *Or* row).
- **3. Run** ! the query.
- **4.** Close the query and save the changes.

Date Criteria

You can set date criteria to determine age, hired date, invoice date, and so forth. Access acknowledges the same comparison criteria for performing date comparisons that it does for locating other types of data, regardless of the format used to enter dates.

DATE CRITERIA	
Criterion	Examples of How Records Are Returned
06/22/2013	Date is 06/22/2013
<22-Oct-2013	Dates that occur before 22/Oct/2013
>01/01/13	Dates that occur after 01/01/13
Between 01/01/13 and 06/30/13	Dates between 01/01/2013 and 06/30/2013

DEVELOP YOUR SKILLS: A3-D6

Winchester Web Design needs to track all invoices issued in 2012. In this exercise, you will query the database to locate customers with invoices dated from January 1, 2012, through December 31, 2012.

- **1.** Choose **Create** \rightarrow **Queries** \rightarrow **Query Design .**.
- **2.** Use double clicks to add the **Customers**, **Invoices**, **Invoice Details**, and **Products** tables to the query.
- **3.** Close the Show Table box.
- **4.** Double-click **InvNum** and **InvDate** in the **Invoices** table to add those fields to the query grid.
- **5.** Add the **CustID** field from the **Customers** table.
- **6.** Add the **Qty** field from the **Invoice Details** table.
- 7. Add the **ProdDescription** and **Price** fields from the **Products** table.

8. Widen the InvDate field by dragging the column heading to the right as shown here.

InvDate	CustID
Invoices	Customers
\checkmark	\checkmark

 Click in the Criteria box for the InvDate field, type Between January 1, 2012 and December 31, 2012, and then tap Enter.

			1			-
Field:	InvNum	InvDate	CustID	Qty	ProdDescription	Price
Table:	Invoices	Invoices	Customers	Invoice Details	Products	Products
Sort:						
Show:	\sim		\sim			
Criteria:		Between #1/1/2012# And #12/31/2012#				
or:						

- **10. Run** ! the query.
- **11.** Choose **File**→**Save** or click the **Save** button on the Quick Access toolbar.
- **12.** Save the query as **Invoices2012** and then close it.

Sorting and Showing

The query grid contains a Sort row that lets you sort the query results. At times you may also want to use fields to specify criteria but may not want those fields to be displayed in the query results. This can be accomplished by unchecking the Show box for the desired field(s).

DEVELOP YOUR SKILLS: A3-D7

In this exercise, you will create a query that sets a sort order and you will hide a field from displaying in the query results. You will also limit the number of records returned.

- **1.** Choose Create \rightarrow Queries \rightarrow Query Design \blacksquare .
- **2.** Use double clicks to add the **Customers**, **Invoices**, **Invoice Details**, and **Products** tables to the query.
- **3.** Close the Show Table box.
- **4.** Double-click the **CustID**, **CustFirstName**, and **CustLastName** fields in the **Customers** table to add them to the design grid.
- **5.** Add the **InvDate** field from the **Invoices** table.
- **6.** Add the **ProdDescription** field from the **Products** table.
- 7. Add the **Qty** field from the **Invoice Details** table.

8. Follow these steps to set a criterion and set the sort order:

Field:	CustID	CustFirstName	CustLastName	InvDate	ProdDescription	Qty B
Table:	Customers	Customers	Customers	Invoices	Products	Invoice Detail
Sort:						Descending 🗸
Show:	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Criteria:					Like "Image"	
or:						

- Click in the **ProdDescription** criteria box, type **Image***, and tap **Enter**. Access converts *Image** to *Like "Image*"*. This criterion will choose only records where the product description begins with *Image*.
- B Click in the **Sort** box for the Qty field and choose **Descending** from the list of sort options.
- **9. Run** ! the query.
- **10.** Choose **Home** \rightarrow **Views** \rightarrow **Design View M** to switch back to Design View.
- **11.** Uncheck the **Show** box for the **CustID** field and **Run** ! the query.
- **12.** Save the query as **Most Images** and then close it.

Calculated Fields

Calculated fields are formulas that perform calculations on other query fields. Calculated fields are added to queries and are not part of the underlying query tables. They are added to the query design grid and their calculated results then appear in the query results. A calculated field:

- Creates a new field in a query that can also be used in a form or report
- Can be used to perform mathematical operations such as addition and multiplication
- Has a name and can be formatted with properties just like a regular field
- Enables you to combine values in two text fields into one field such as LastName and FirstInitial
- Updates and recalculates each time you run the query

Identifying Parts of a Calculated Field

The structure of a calculated field includes a field name and a mathematical expression. Two examples of calculated fields in an Access query would be Wage: Hours * Rate and Total: Price * Quantity, where Wage and Price are calculated field names and Hours * Rate and Price * Quantity are the calculations that are performed.

Price	Qty	LineTotal: [Price]*[Qty]
Products	Invoice Details	
\sim	\checkmark	\checkmark

Price 👻	Qty 👻	LineTotal 👻
\$200.00	6	\$1,200.00
\$40.00	11	\$440.00
\$400.00	1	\$400.00
\$40.00	15	\$600.00

The LineTotal calculated field multiplies Price * Qty

The query results

CALCULATED FIELD ELEMENTS			
Element	Description		
Calculated field name	This is the unique name you assign to the field and is followed by a colon (:) to separate the field name from the expression.		
Field names from existing tables	Field names from the query can be added to the calculated field expression. Access adds brackets [] around field names.		
Arithmetic or comparison operators	Use +, -, *, /, (), ^, <, =, > to perform mathematical operations or compare values.		
Concatenation (i.e., linking together)	An ampersand (&) can be used to join text values from multiple fields. For example, FirstName&LastName. Spaces can be added between fields by using quotation marks around a single space (""). For example, the quotation marks in FirstName& " " &LastName create a space between the first and last names in the query results.		

Each calculated field can contain the following elements.

Calculated Field Properties

You can set field properties such as size, number format, and default values within tables. Likewise, you can set field properties in calculated fields. This is almost always needed in calculated fields as the query results need to be formatted with the correct number of decimal places, commas, currency format, and other formatting as needed. Field properties are set using the field Property Sheet.

Design—Show/Hide—Property Sheet

DEVELOP YOUR SKILLS: A3-D8

In this exercise, you will create and format a calculated field.

- 1. Open the InvoicesList query and switch to Design View.
- **2.** Click in the **first cell** of the blank column next to the *Qty* field.

Price	Qty ()
Products	Invoice Details
	>10

- **3.** Type the calculated field expression **LineTotal:Price * Qty**, making sure you include the colon between *LineTotal* and *Price*.
- 4. Tap Enter.
- **5.** Right-click anywhere in your calculated field column and choose **Properties**.
- 6. Set the Format property to **Currency** and type **Line Total** in the **Caption** field.

2

4/2/2012 MJW

Sec. Ma

\$200.00

7

\$1,400.00

	1	-				
Invoices List						
InvNum 👻	Invoice Date 👻	Emp ID 👻	Description •	Price -	Qty 🗸	Line Total 🕞
1	3 /15/2012	JFW	Secondary Page	\$200.00	6	\$1,200.00
1	3/15/2012	JFW	Image, Custom Designed	\$40.00	11	\$440.00
1	3/15/2012	JFW	Home Page, Nav, CSS, Design	\$400.00	1	\$400.00
2	4/2/2012	WLM	Image, Custom Designed	\$40.00	15	\$600.00
2	4/2/2012	MJW	Home Page, Nav, CSS, Design	\$400.00	1	\$400.00

Secondary Page

tile a

7. Run !! the query, and your calculated field results will appear as shown below.

8. Save and close the query and then close the A3-D1-WinWebDesignRevised database.

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Self-Assessment

Check your knowledge of this chapter's key concepts and skills by completing the Self-Assessment. The answers to these questions can be found at the back of this book.

1.	A query can use fields from more than one table.	True	False
2.	It is important for two tables to be related if a query uses fields from both of them.	True	False
3.	Entering a specific date criterion such as 06/22/2016 in a date field will only return records where the date is an exact match.	True	False
4.	The Property Sheet can be used to set properties for calculated fields.	True	False
5.	When data in query results is edited, the data is changed in the query fields, not in the underlying tables.	True	False
6.	Calculated fields must first be created in the underlying tables before they can be added to a query.	True	False
7.	Which field types can criteria be used with? A. Text		

- **B.** Numeric
- **C.** Date
- **D.** All of these options
- 8. What records will the following query return?

					i
Field:	VolDay	VolLastName	VolFirstName	VolPhone	
Table:	Volunteers	Volunteers	Volunteers	Volunteers	
Sort:					
Show:	\sim			\checkmark	
Criteria:		Smith			
or:					

A. All records

- B. Only records with a last name of Smith
- **C**. Only records where the last name begins with Smith
- **D.** All records except for those with a last name of Smith

9. What records will the following query return?

				-
Field:	VolDay	VolLastName	VolFirstName	VolPhone
Table:	Volunteers	Volunteers	Volunteers	Volunteers
Sort:				
Show:			\checkmark	\checkmark
Criteria:		Like "L*"		
or:				

- A. All records
- **B.** Only records with L somewhere in the last name
- **C.** Only records with L somewhere in the first name
- **D**. Only records with the last name beginning with L
- 10. Which symbol is used to separate the field name from the expression in a calculated field?
 - **A.** []
 - **B.** *
 - **C.** :
 - **D**. 🗌
- **11.** Which of the following would work properly as a calculated field assuming the query has fields named Price and Quantity?
 - **A.** Total=Price*Quantity
 - **B.** Price*Quantity=Totals
 - **C.** Total:Price*Quantity
 - **D.** [Total]=[Price]*[Quantity]
- **12.** Which criteria could be used to choose only records containing the letters HR somewhere within the data?
 - A. HR
 - **B.** [HR]
 - **C.** *HR*
 - **D.** HR or RH

13. Which query will return the following results?

🔟 Last Name 👻	First Name 👻	Email 👻
Smith	William	SmithBilly@email.com
Santos	Emily	SantosE@email.com
Winkler	Samuel	SamWinkler45@email.co
Thibeaux	Pierre	PierreJT@email.com
Mansur	ol	Mansur@email.com
Klein	Joyce	KleinBrian@email.com
Roberts	John	JRoberts@email.com
Abrams	John	JPAbrams@email.com
Roberts	Ilsa	IlsaRoberts@email.com
Hassan	Ahmed	HansAnge@email.com

Α.

Β.

С.

D.

Field:	CustLastName	CustFirstName	CustEmail
Table:	Customers	Customers	Customers
Sort:			Ascending
Show:		\checkmark	
Criteria:			
or:			
	•		
Field	CustlastNama	CustEirstNama	CustEmpil
rieiu.	CustLastiname	CustFirstName	Custemaii
Table:	Customers	Customers	Customers

Table:	Customers	Customers	Customers
Sort:			
Show:			\sim
Criteria:		>"M"	
or:			

	Field:	CustLastName	CustFirstName	CustEmail
	Table:	Customers	Customers	Customers
	Sort:			Descending
2	Show:			
Cr	iteria:			
	or:			

Field:	CustLastName	CustFirstName	CustEmail
Table:	Customers	Customers	Customers
Sort:			
Show:			\sim
Criteria:	"Smith"	"William"	
or:	"Hassan"	"Ahmed"	

42 FastCourse Access 2016 Chapter 3: Querying a Database Labyrinth Learning http://www.lablearning.com **14.** Which query will return records in which the invoice date occurs after January 1, 2014, the employee ID is JB, and all fields are shown in the query result?

Field: InvNum InvDate EmpID CustFirstNam	e CustLastName
Table: Invoices Invoices Customers	Customers
A. Sort: Ascending	
Show: 🗸 🗸 🗸	\checkmark
Criteria: >#1/1/2014# "JB"	
OI:	
Field Invition Invitation Frank	a CustlastNama
Table: Invoices Invoices Customers	Customara
P Soft According	Customers
D. Solic Ascending	
Criteria:	
or JD	
0.1	
Field: InvNum InvDate EmpID CustFirstName	e CustLastName
Table: Invoices Invoices Invoices Customers	Customers
C. Sort: Ascending	
Show:	
Criteria: >#1/1/2014# "JB"	
or:	
	e CustLastName
Field: InvNum InvDate EmpID CustFirstName	
Field: InvNum InvDate EmpID CustFirstName Table: Invoices Invoices Customers	Customers
Field: InvNum InvDate EmpID CustFirstName Table: Invoices Invoices Invoices Customers D. Sort: Ascending Invoices Invoices Invoices	Customers
D. Field: InvNum InvDate EmpID CustFirstName Table: Invoices Invoices Customers Ascending Customers	Customers
D. Field: InvNum InvDate EmpID CustFirstName Table: Invoices Invoices Invoices Customers Sort: Ascending Criteria: >#1/1/2014#	

- **15.** Which of the following best describes the records returned by a query that has the criterion Date() in a date field:
 - **A.** Only records with today's date
 - **B.** Only records without dates
 - **C.** Any record with a date
 - **D.** Criteria can't include dates