Microsoft® Office 2013

First Course | Second Course | Third Course

Access 2013
UNIT B

Building and Using Queries

Objectives

- Use the Query Wizard
- Work with data in a query
- Use Query Design View
- Sort and find data

(continued)

Objectives *(continued)*

- Filter data
- Apply AND criteria
- Apply OR criteria
- Format a datasheet

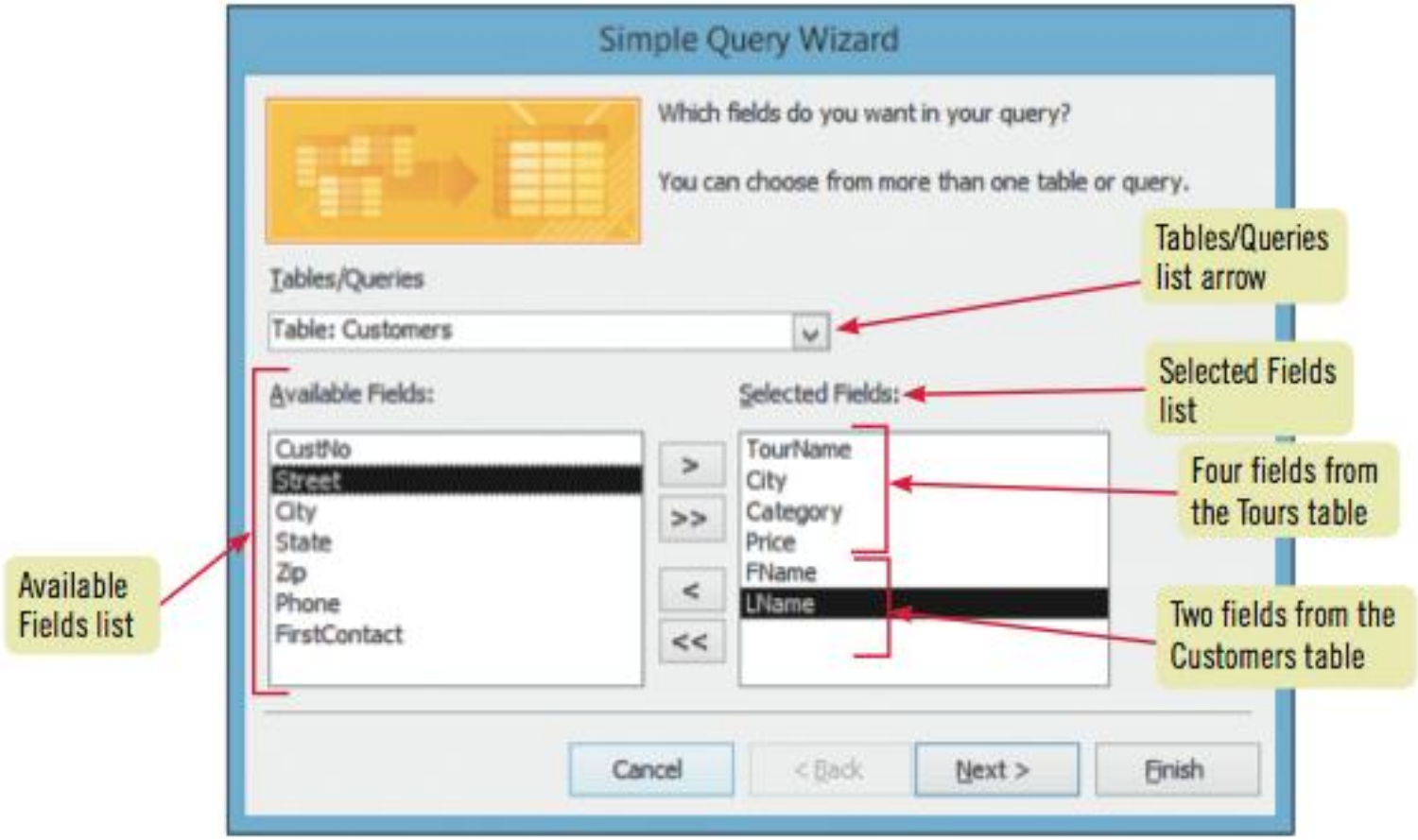
Use the Query Wizard

- A query allows you to select a subset of fields and records from one or more tables and then present the selected data as a single datasheet
- Because a query doesn't physically store the data, a query datasheet is sometimes called a logical view of the data

Use the Query Wizard

- Technically, a query is a set of SQL (Structured Query Language) instructions, but because you can use Access query tools such as Query Design View, you are not required to know SQL to build or use Access queries

Use the Query Wizard



Work with Data in a Query

- You enter and edit data in a query datasheet the same way you do in a table datasheet
- Any edits you make in a query datasheet are permanently stored in the underlying tables, and are automatically updated in all views of the data in other queries, forms, and reports

Working with Data in a Query

Record selector button for first record

Updating Stanley to Breeze in one record updates all records

TourCustomerList

TourName	City	Category	Price	FName	LName
Breeze Bay Shelling	Captiva	Adventure	$750	Ralph	Hopper
Breeze Bay Shelling	Captiva	Adventure	$750	Lisa	Wilson
Ames Ski Club	Breckenridge	Adventure	$850	Kristen	Collins
Breeze Bay Shelling	Captiva	Adventure	$750	Kris	Goode
Breeze Bay Shelling	Captiva	Adventure	$750	Lois	Goode
Breeze Bay Shelling	Captiva	Adventure	$750	Naresh	Hubert
Piper-Heitman Wedding	Captiva	Family	$550	Julia	Bouchart
Ames Ski Club	Breckenridge	Adventure	$850	Tom	Camel
Golden Footsteps	Orlando	Site Seeing	$550	Shirley	Walker
Golden Footsteps	Orlando	Site Seeing	$550	Zohra	Vogue
Golden Footsteps	Orlando	Site Seeing	$550	Kathryn	Dotey
Golden Footsteps	Orlando	Site Seeing	$550	Jose	Hammer
Red Reef Scuba	Islamadora	Adventure	$1,500	Jane	Taylor
Breeze Bay Shelling	Captiva	Adventure	$750	Kori	Yode
American Heritage Tour	Philadelphia	Educational	$1,200	Sharol	Olingback

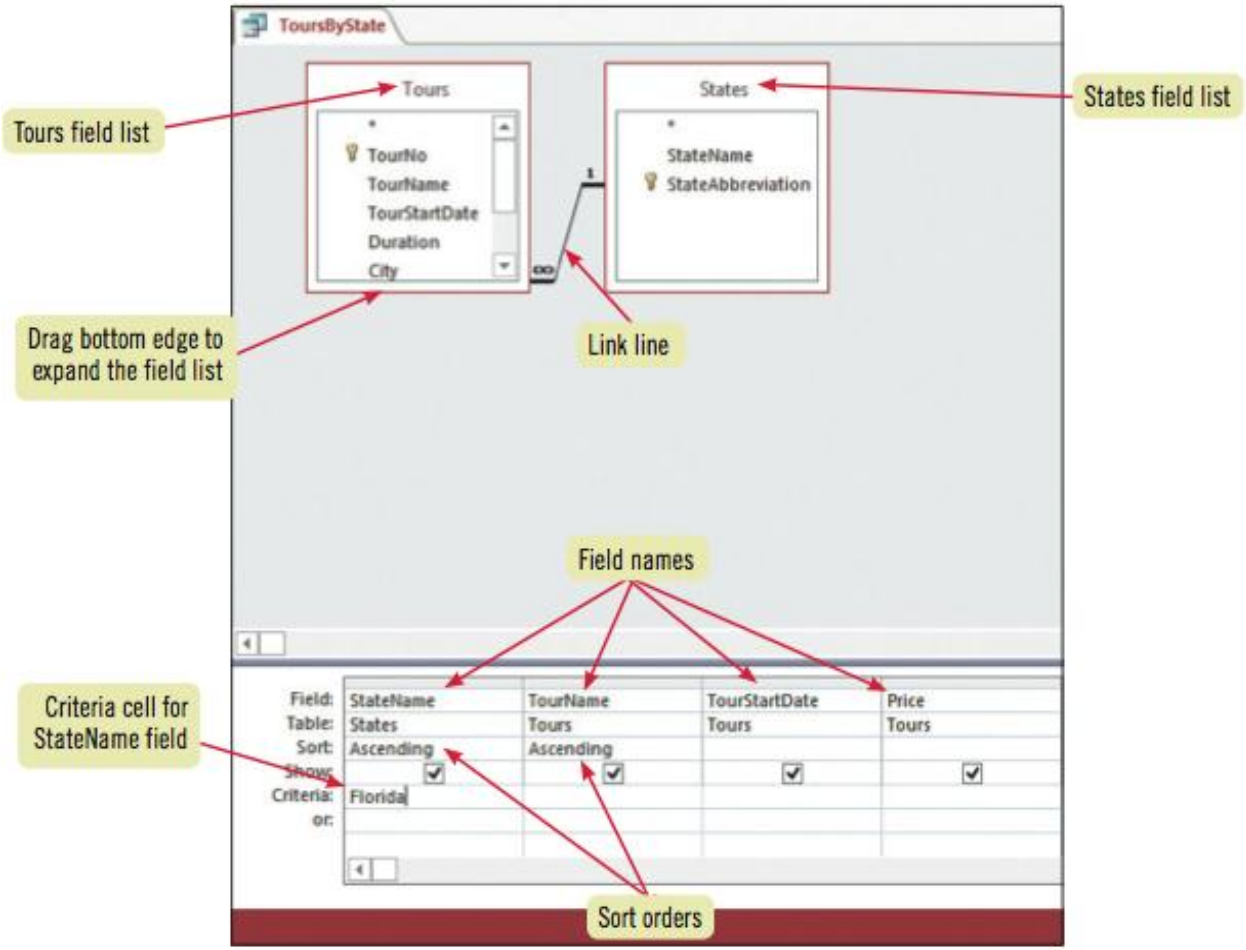
Use Query Design View

- Use Query Design View to:
  - Add, delete, or move the fields in an existing query, to specify sort orders, or to add criteria to limit the number of records shown in the resulting datasheet
  - Create a new query from scratch

Use Query Design View

- Query Design View presents the fields you can use for that query in small windows called field lists
- If you use the fields of two or more related tables in the query, the relationship between two tables is displayed with a **join** or **link line** identifying which fields are used to establish the relationship

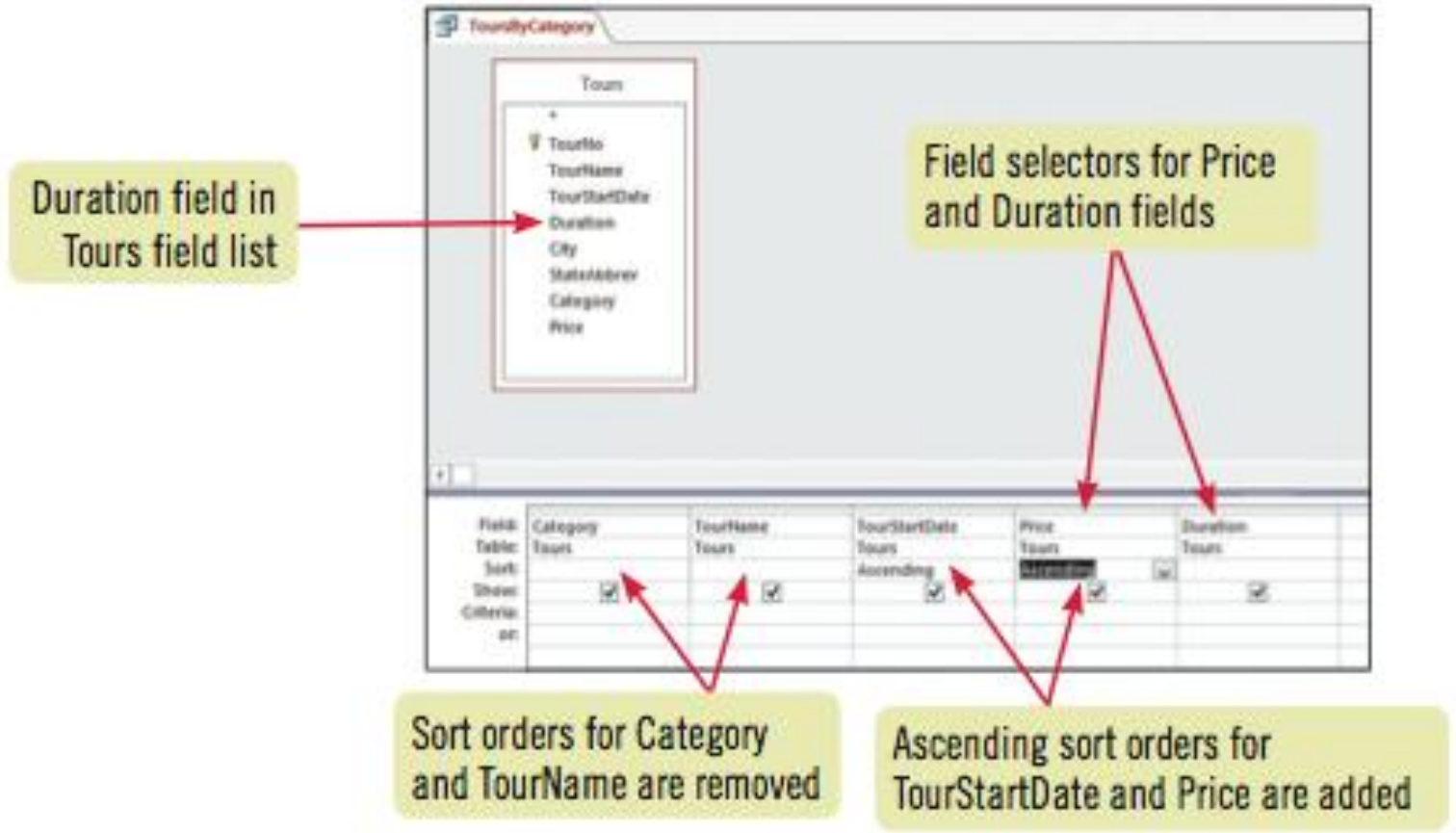
Use Query Design View



Sort and Find Data

- The Access sort and find features are handy tools that help you quickly organize and find data in a table or query datasheet.
- Data can be sorted by clicking the list arrow on a datasheet's column heading, then click a sorting option

Sort and Find Data



Sort and Find buttons

name	button	purpose
Ascending		Sorts records based on the selected field in ascending order (0 to 9, A to Z)
Descending		Sorts records based on the selected field in descending order (Z to A, 9 to 0)
Remove Sort		Removes the current sort order
Find		Opens the Find and Replace dialog box, which allows you to find data in a single field or in the entire datasheet
Replace		Opens the Find and Replace dialog box, which allows you to find and replace data
Go To		Helps you navigate to the first, previous, next, last, or new record
Select		Helps you select a single record or all records in a datasheet

Filter Data

- Filters provide a temporary way to display a subset of records that match given criteria
- Filters are not used to calculate sums, averages, counts, etc.
- Filters are removed when the datasheet is closed
- Filters can, however, be saved as queries

Filtering Data

- Filter By Selection: Filtering by a given field value. Filters records for an exact match.
- Filter By Form: Filters by comparative data

Wildcards

- Used to search for a pattern; represents any character
- Entered as criteria
- ? Used to search for a single character
- * Used to search for any number of characters

Filters vs. Queries

characteristics	filters	queries
Are saved as an object in the database		•
Can be used to select a subset of records in a datasheet	•	•
Can be used to select a subset of fields in a datasheet		•
Resulting datasheet used to enter and edit data	•	•
Resulting datasheet used to sort, filter, and find records	•	•
Commonly used as the source of data for a form or report		•
Can calculate sums, averages, counts, and other types of summary statistics across records		•
Can be used to create calculated fields		•

Apply AND Criteria

- AND criteria means all criteria must be true for the record to be selected
- Created by entering 2 or more criteria in the same Criteria row of the query design grid

Criteria Syntax

- Quotation marks (“) around text criteria and pound signs (#) around date criteria are automatically added by Access
- Criteria in Number, Currency, and Yes/No fields are not surrounded by any characters

Searching for Blank Fields

- 2 common criteria are **Is Null** and **Is Not Null**
- **Is Null** – Finds all records where no entry has been made
- **Is Not Null** – Finds all records where any entry has been made (even if zero)

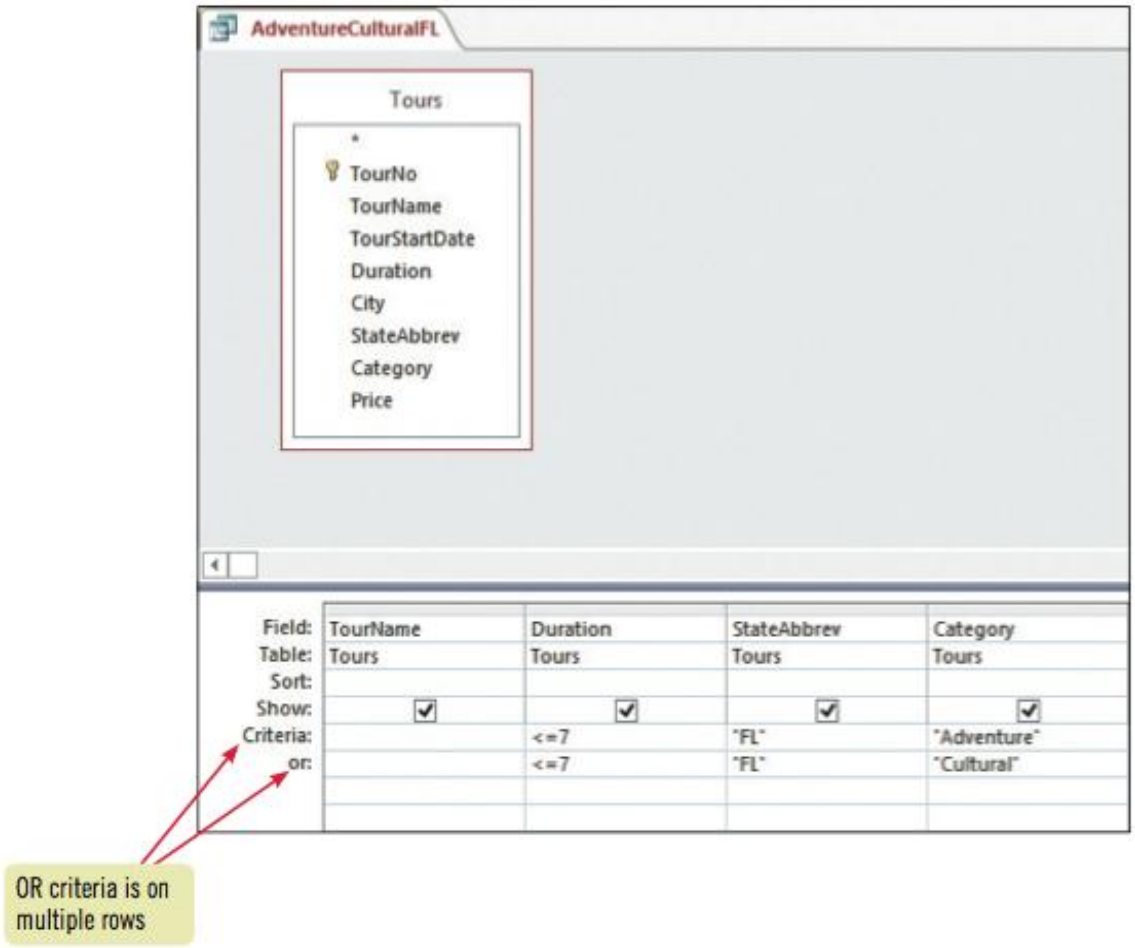
Comparison Operators

operator	description	expression	meaning
>	Greater than	>500	Numbers greater than 500
>=	Greater than or equal to	>=500	Numbers greater than or equal to 500
<	Less than	<"Braveheart"	Names from A to Braveheart, but not Braveheart
<=	Less than or equal to	<="Bridgewater"	Names from A through Bridgewater, inclusive
<>	Not equal to	<>"Fontanelle"	Any name except for Fontanelle

Apply OR Criteria

- OR criteria means *any one* criterion must be true for the record to be selected
- Created by entering 2 or more criteria on *different* Criteria rows of the query design grid
- Also created by entering 2 or more criteria in the *same* Criteria cell separated by OR

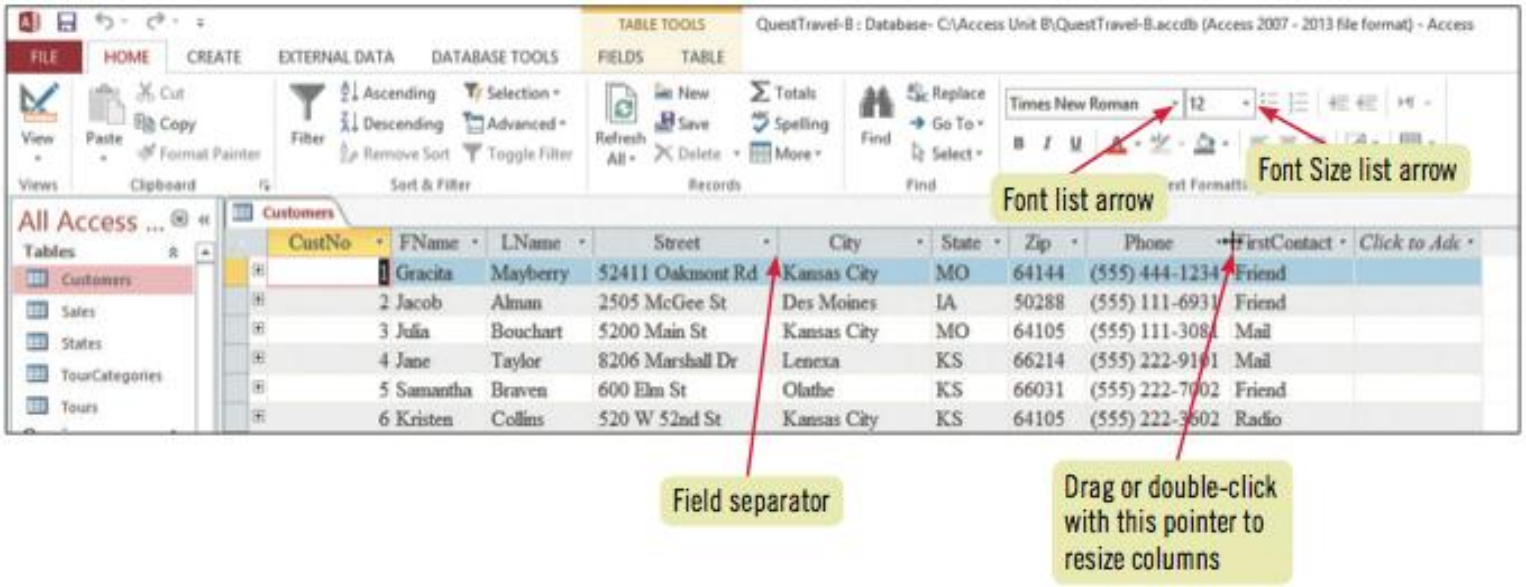
Apply OR Criteria



Format a Datasheet

- **Can**: Change font size, font face, colors, gridlines

Formatting a Datasheet



Summary

- Using the Query Wizard
- Working with data in a query
- Using Query Design View
- Sorting and finding data
- Filtering data
- Applying AND criteria
- Applying OR criteria
- Formatting a datasheet