Access XP Queries and Reports

Customer Support

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Table of Contents

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Course Description

This is the second in a series of five classes about Microsoft Access XP. It deals specifically with queries and reports.

Many databases contain large varied amounts of information. There are times when you will need to narrow the focus of the information in the database. This is done through the use of queries.

Queries allow you to view, change, and analyze data in different ways. You can also use them as a source of records for forms and reports.

The purpose of this class is to familiarize you with the different types of queries and how they can be used.

Our goal is to assist you to learn the software, understand some basic concepts and show you some tips and techniques so you can develop your database management/programming skills over time.

The five classes are:

- Introduction to Access

- Access Queries and Reports

- Access Database Design

- Access Form Design

- Access Macros

Thank you,

The OIT Customer Support Consulting Staff

West Virginia University

What is a Query?

In the strictest sense, a query is a way to answer questions about the data in your tables. It allows you to retrieve items in a database that meet a set of criteria that you specify. However, within the realm of modern databases, a specialized form of a query can also be used to:

- Define database objects

- Perform calculations

- Make new tables

- Append, delete, or update records

- Produce data summaries

Access contains some other features that are not strictly classified as queries but they can be used to achieve query-like results. These are sorting and filters. Sorting was covered in the Introduction to Access workshop and we will discuss filters today before we tackle actual queries. We also learned how to use the find command in the *Introduction to Access* workshop. Wildcards (*, ?, NULL) will also work for filters and queries.

Filters

A filter can be used to select or exclude a set of records from a table that meets specified criteria.

Types of Filters

Filter	Action	Menus	Toolbar	Shortcut Menu
Filter by Selection	Uses selected text as criteria	X	X	X
Filter by Exclusion	Uses all text except selected text as criteria	X		X
Filter By Form	Uses sample text entered into a blank record as criteria	X	X	
Advanced Filter/Sort	Uses the Query by Example (QBE) grid to set criteria	X		

Limitations of Filters

While filters are powerful in their search and retrieval capabilities, they do have limitations.

- Selection limited to one table
- Cannot calculate new data
- Must retrieve the entire record

Notes on Filters

- A filter can be saved as a query. You must be in the Advanced Filter/Sort view and then choose **File | Save as Query** from the menus
- To remove a filter and view all records within a table, select Remove Filter/Sort from the toolbar, menu bar, or shortcuts menu
- Multiple fields can be used in a filter, Filter will evaluate from left to right
- For each specified field in an Advanced Filter, you can indicate either a sort order or criteria or both

Activity 11: Creating and Using Filters

1. Open the Northwind database
2. Open the **Customers** table
3. Click in any **ContactTitle** field that has a value of "Owner"
4. Choose **Filter by Selection** on the toolbar, the shortcut menu, or in the menu bar under **Record | Filter**
5. Remove the filter by choosing **Remove Filter** on the toolbar, the shortcut menu, or in the menu bar under **Record | Filter**
6. Click in any **ContactTitle** field that has a value of "Owner"
7. Choose **Filter Excluding Selection** from the shortcut menu or the menu bar under **Record | Filter**
8. Remove the filter
9. Choose **Advanced Filter/Sort** from the menu bar under **Record | Filter**
10. In the lower portion of the screen **ContactTitle** should be listed in the field row. Click in the field textbox of the next column
11. Using the drop down list, choose the Country Field
12. Enter "Sales Manager" in the criteria area of the **ContactTitle** field and "USA" in the criteria area of the **Country** field
13. Click on the **Apply Filter** button
14. Choose **Advanced Filter/Sort** from the menu bar under **Record | Filter**
15. Remove the criteria from **ContactTitle** field
16. Enter "Canada" and "Mexico" in the textboxes below USA in the **Country** field.
17. Choose **File | Save As Query** from the menus
18. Save the query with the name **NAFTA**
19. Apply the filter
20. Remove the filter
21. Close the **Customers** table
22. Click on the **Queries** object and open the NAFTA query
23. Switch to **Design View**
24. Close the NAFTA query
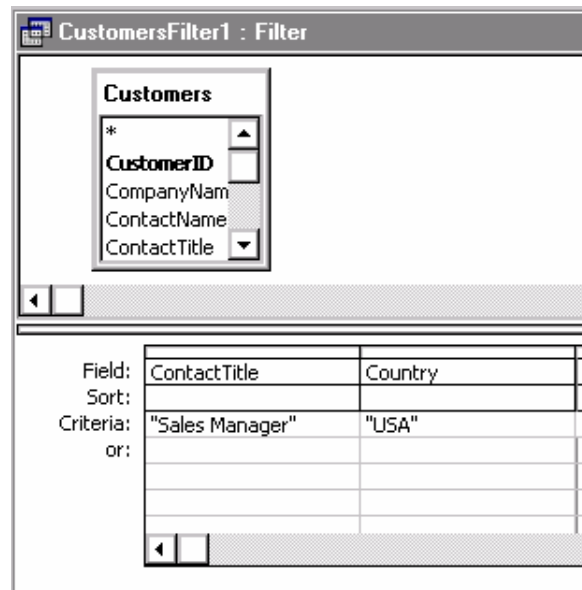
Queries

Why Use Queries?

In most cases, the real reason for using a database to store data records is so they can be retrieved using some criteria that is specified interactively. Since this is the definition of a query, we could logically assume that queries are the main reason for using a database. Access gives you a great deal of flexibility and power with queries. You can use them to:

- **Choose fields:** You can select the exact fields needed to satisfy the query. You do not have to include all of the fields of a record in a query

- **Choose records:** You can select records from a table based on a specified criteria

- **Sort records:** You can view the results of the query in a specified order

- **Access multiple tables:** You can select data from several different tables and place the results in a single dynaset. You can even access data from other database management systems

- **Perform calculations:** You can add new fields in the dynaset that contains the results of calculations involving other fields

- **Provide data source:** You can use a query as a source of data for forms, reports, and other queries

- **Update data:** You can update, delete, or append a group of records in one step. You can even create a new table that includes some or all of the records from an existing table or tables

Using a query

Microsoft Access contains a number of query wizards or you can create one from scratch using a form of **Query by Example** - where you specify the retrieval criteria by placing typical values in columns. You can then treat the columns of sample data as an example for the query. This is the exact same concept that we used for the advanced filter earlier. However, a query is more complex than a filter, since it can:

- Apply to multiple tables

- Select individual fields instead of full records

- Be saved and reused

Types of Queries

Query Type	Description
Select Query	A select query is used to view, analyze, or update the data in one or more tables. It is the most common type of query in Access and it is very similar to the previously discussed filter.
Crosstab Query	A crosstab query is used to present the data in rows and columns like a spreadsheet. It can summarize large amounts of data in an easy-to-read format and it blends well with reports and charts.
*Make Table Query	Creates a new table from a dynaset. It can be used to make table backups, to archive old data, or to create an extract of a table for exporting.
*Update Query	Lets you make global changes to data in one or more tables. Allows you to enter one set of changes that could be posted to many records with minimal effort.
*Append Query	Allows you to add records to the end of a table. It can be used to merge tables together by appending one table to the end of another.
*Delete Query	Deletes a group of records from one or more tables. Could be used in conjunction with the Make Table query to delete archived records from a table after an archive table was created and filled.
Union Query	A union query is used to combine the matching fields from two or more tables.
Pass-Through Query	A pass-through query is used to send commands to a SQL database.
Data Definition Query	A data definition query creates, changes, or deletes tables in a Access database using SQL statements.

* These are action queries. When these queries are run design changes are made to the database in some manner.

Creating a Query

Queries can be created in several different ways. When you click on the **New** button in the Queries object you can choose between the following methods to create a query:
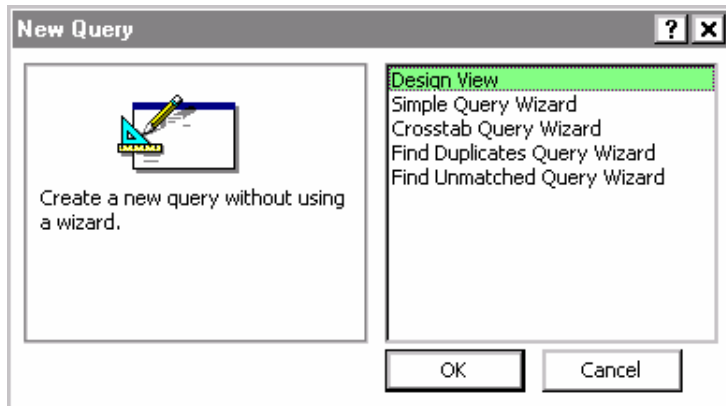
Design View

- Create a query from scratch. You will get a blank QBE grid

Simple Query Wizard

- Creates a select query from one or more tables which can do simple selections and calculations

Crosstab Query

- Creates a crosstab table for a single table or query

Find Duplicates Wizard

- Finds duplicate records within a single table or query
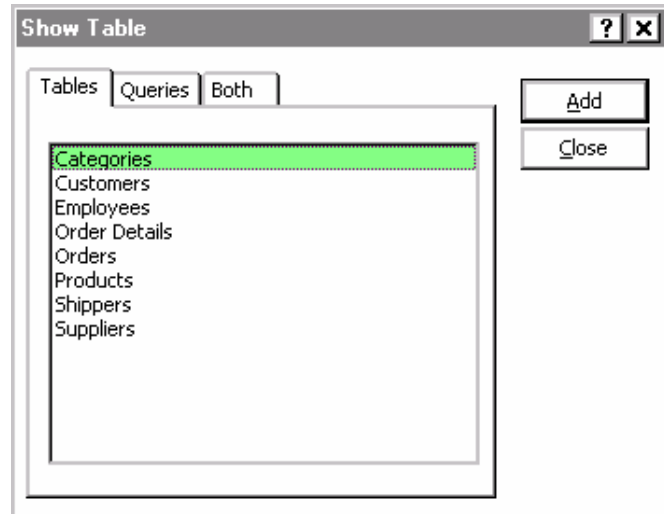
Find Unmatched Wizard

- Finds records in one table that do not match records in a related table

Select the method that you wish to use and click on **OK**.

Using Design View to Create Queries

Selecting a data source

1. Click on the name of the table of query that you wish to use in your query

2. Click on **Add**

3. Repeat for each table that you want to add to the current query

4. Click on **Close** when finished

Show Table

Tabs: Tables | Queries | Both

- Categories
- Customers
- Employees
- Order Details
- Orders
- Products
- Shippers
- Suppliers

Buttons: Add | Close

Query By Example Window

Query1 : Select Query

Tables shown:

Customers
- *
- **CustomerID**
- CompanyNam
- ContactName
- ContactTitle

(1 — ∞) to

Orders
- *
- **OrderID**
- CustomerID
- EmployeeID
- OrderDate

(1 — ∞) to

Order Details
- *
- **OrderID**
- **ProductID**
- UnitPrice
- Quantity

Grid rows: Field: | Table: | Sort: | Show: | Criteria: | or:

Query Notes:

- If more than one table is selected join lines should be displayed between the tables to show the relationships

- You can add tables to a query at any time by choosing **Show Table** from the **Query** menu

- The type of query that you are creating is displayed in the title bar of the query window. You can change the type of query by selecting the desired query type from the Query menu

Selecting Fields

Only the fields that are added are displayed in the resulting dynaset. Fields can be added from multiple tables as long as there is a connection or relationship between the two tables.

Fields can be added to the Query in three ways:

1. In the Field row of the QBE grid, click on the drop down menu and choose the field name that you want to add
2. Click and drag the field that you want to add from the table listing in the top portion of the screen to the lower portion
3. Double click on the field name that you want to add in the table listings

Use any combinations of these methods to add all of the fields to the query that you wish to include.

Query Views

View	Description
Design View	Use the QBE grid to create or modify queries
Datasheet View	Use to view to results of the query in a table like view
SQL View	Use to view or modify the code associated with the query
PivotTable View	Use to view the results of a query as a PivotTable
PivotChart View	Use to view the results of a query as a PivotChart
*Print Preview	Use to view the results as they would appear in print

* Print Preview is only available on the **File** menu. The other views are available using the View button on the toolbar and on the **View** menu.

Activity 12: Create a Simple Query

1. Click on the **Queries** object name

2. Click on the **New** button

3. Select **Design View**

4. Click on **OK**

5. Add the **Customers** table

6. Click on **Close**

7. Add the fields **ContactName**, **ContactTitle**, **CompanyName**, and **Country** to the QBE grid

8. Type the word "Owner" in the criteria row below **ContactTitle**
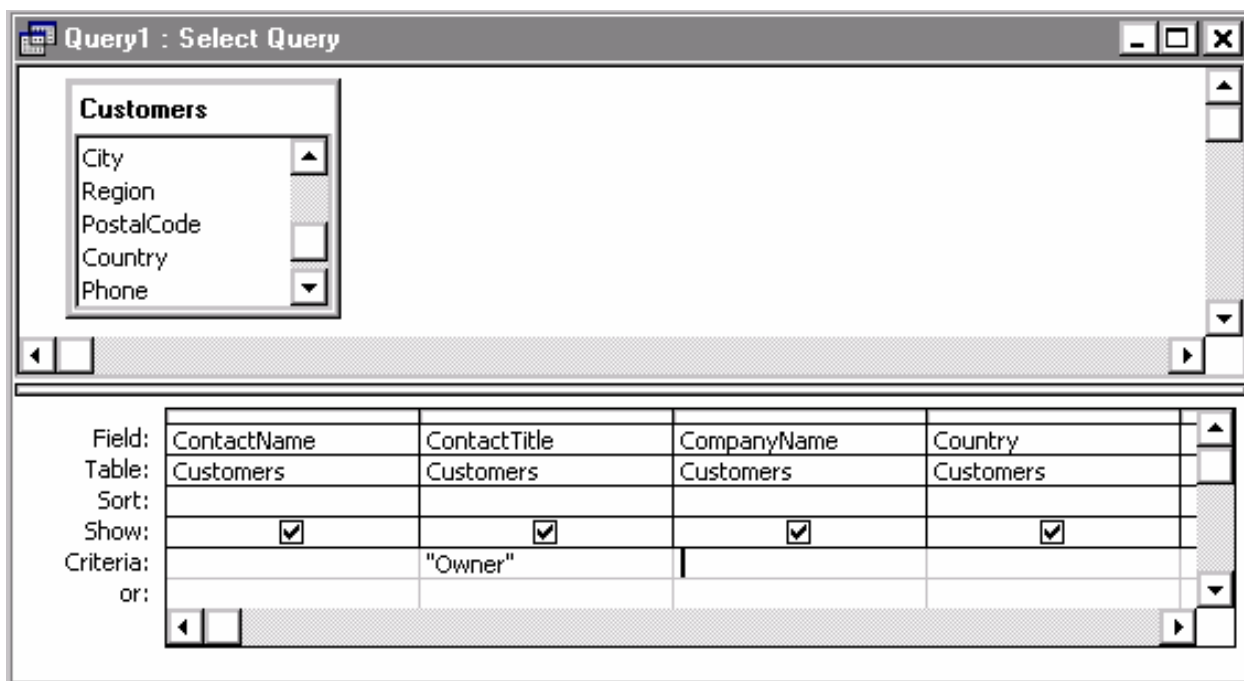
9. Run the query by clicking on the **!** button or by switching to **Datasheet View**

10. Close the query and save it with the name **FindOwners**

Query Utilities

Rearranging, Inserting, or Deleting Fields

While you are selecting the fields to be used in the query, it's easy to alter the query structure if needed.

Moving a field

To move a field left or right in the grid, click on the header bar to highlight the field. Then click on it again and drag it to a new location.

Deleting a field

To delete a field, click on the header bar to highlight the field. Then press the Delete key.

Inserting a field

To insert a field, select it from a table field list and drag it to the column position where you want it inserted. The other columns will shift to the right to make room for it.

Specifying Sort Order

When you view the results of a query, it's often easier to interpret the data if it is sorted into some logical sequence. Sorts can be specified directly in the Query By Example (QBE) grid.

- Click in the Sort cell for the field that is to be the sort key, pull down the sort options menu, and select the desired sort order

- To sort on multiple fields, arrange them from left to right in the desired sort key order and select the desired sort options for each field

Excluding Fields from the Dynaset

Fields can be used as part of the selection criteria but excluded from the resulting dynaset. To exclude a field from the displayed dynaset, remove the check from the box in the Show cell of the QBE grid.

Specifying Criteria

To select certain records from the database tables, we can specify selection criteria that a record must meet in order to be selected. The criteria is specified in the form of an expression.

- A simple expression would be a value. The query would search for all records with that value in that field

- You can use <, >, <=, >=, and <> (not equal to) with a value. For example, a criteria of *<200* for a cost field

- More complex expressions can be created to search for a range of values or the difference between values. The expression builder can be used to create the expression that forms the criteria of the query. Start the expression builder and click on the Help button for more information on using the builder

- If you know the syntax of the expression, you can simply type it in the criteria cell

- Wildcards can be used to specify the criteria. You can use ? in place of any single character, * in place of any number of characters, and # in place of any single numeric digit

Combining Selection Criteria

Selection criteria entered into the Query By Example grid can be combined within columns or across columns. The logical operators AND and OR are available for use but are generally implied by the position of the criteria within the grid.

- To use a multiple OR condition within a column, list the first criteria in the cell marked Criteria and placed successive items in the cells directly below the first

- A multiple AND condition within a column is generated by placing both criteria in the same cell separated by the keyword AND

- An AND condition across columns is created by placing the specifications in cells along the same criteria row

- An OR condition across columns is created by placing the specifications in cells in different rows

Viewing the Resulting Dynaset

As the criteria specifications are entered in the Query By Example grid, Access extracts the resulting data from the table and places it in the Dynaset.

You can view the Dynaset by choosing **View / Datasheet** from the menu bar or by clicking on the Datasheet button on the Toolbar. The dynaset (often called a recordset) resulting from a query appears to have all of the characteristics of a table, but it isn't quite the same.

It is called a virtual table because it exists in the memory of the computer only. When you exit Access, the dynaset is lost unless you take some direct measures to save it. Procedures for converting the dynaset to a table are described later.

Saving the Query

When you save a query, it becomes part of the database and appears under the **Queries** entry in the **Objects** list in the Database window.

Saving a query saves only the structure of the query itself. It does not save the dynaset results from running the query. When you open the query in the future, it will re-run the query and display a new dynaset result.

- To save a query, choose the **Save** command from the **File** menu while in the Design view. If you have not yet saved your query, Access will prompt you to do so when you attempt to close the query

- Give the query a meaningful name then click the **OK** button.
  Caution: do not give a query the same name as one of your tables. It could replace the table and result in a loss of data

Printing Query Results

You can print the results of the query by selecting the Datasheet View and choosing the **Print** command from the **File** menu. The output will be presented in table form with no formatting.

To produce a nicely formatted report, you will have to create a report. We will discuss that topic later in this workshop.

Activity 13: Combining Criteria in a Single Field

Query will find all products with a price of $25 or greater and less than or equal to $100

1. Click on **New** in the Query objects

2. Select **Design View**

3. Click on **OK**

4. Add the **Products** table

5. Click on **Close**

6. Add the fields **ProductName** and **UnitPrice**

7. Enter **>25 AND <100** in the criteria area under **UnitPrice**

8. Run the query

9. Switch to **Design View**

10. Change the criteria to **>= 25 AND <= 100**

11. Run the query – What is the difference in these two criteria?

12. Close the query and save it with the name **Products between $25 and $100**

Activity 14: Combining Criteria using Multiple Fields

Query will find all customers from the USA who are listed as owner or some type of manager in the contact title field.

1. Click on **New** in the Query objects

2. Select **Design View**

3. Click on **OK**

4. Add the **Customers** table

5. Click on **Close**

6. Add the fields **ContactName**, **ContactTitle**, and **Country** to the grid

7. Set "USA" as the criteria for **Country**. Repeat this on the second row

8. Set the first criteria under **ContactTitle** as Owner

9. Set the second row of the criteria for **ContactTitle** as *manager

Field:	ContactTitle	CompanyName	Country
Table:	Customers	Customers	Customers
Sort:			
Show:	☑	☑	☑
Criteria:	"Owner"		"USA"
or:	*manager		"USA"

10. Run the query

11. Close the query and save it with the name **USA Owners and Managers**

Activity 15: Creating a Multi-table Sorted Query

1. Click on **New** in the Query objects

2. Select Design View

3. Click on **OK**

4. Add the **Customers**, **Orders**, **Order Details**, and **Products** tables

5. Click **Close**

6. Add the fields **CompanyName**, **ProductName**, **UnitPrice** (from Order Details), **Quantity**, and **OrderDate**

7. In the Sort row, under CompanyName, change it to **Ascending**

8. In the Sort row, under OrderDate , change it to **Descending**

9. Run the query

10. Close the query and save it with the name **Order Info Sorted by Company**

Saving Query Results in a Table

The dynaset that results from a query can be saved by creating a new table to hold the data. This is done by using a Make Table query. When a make table query is run:

- Access checks to see if there is a existing table with the name that you have specified. If one exists, it will be deleted. If you have not changed the default settings you will see a warning dialog window before this happens

- Selects the data according to the criteria

- Pastes the data into the new table. If you have not changed the default settings you will see a warning dialog window before this happens

Activity 16: Make Table Query

1. Click on **New** in the query objects
2. Select **Design View**
3. Click on **OK**
4. Add the **Employees** table
5. Click on **Close**
6. Choose any fields to add to the query
7. Add criteria and sorting, if you want
8. Run the query to view the results
9. Switch back to **Design View**
10. Choose **Make Table** from the **Query** menu
11. Enter a name for the table (Make sure that the name you enter is different than any object that already exists in the database.)
12. Click on **OK**
13. Run the query – running the query is the only way that the table will be created
14. Close the query and save it with the name **Make Table Test**
15. Notice the different icon that this query has. This is because it is an action query
16. Click on the **Tables** object
17. Open your table and review the contents – should appear the same as when you ran the query in step 8
18. Close the table

Calculations

Within Access you can perform calculations to display results in a field that are not stored in the database tables. Expressions are used to within a query to define the desired calculations

- Calculations can be entered manually or they can be created using the Expression Builder

- When entering a calculation, you can zoom to expand the input area.
  Press **Shift F2** to zoom in on a text box

- You can change the properties of a calculated field by right clicking on the calculation and choosing **Properties**

Expression Rules

- When the expression refers to other fields in the QBE grid, their field names must be enclosed in square brackets: **[field name]**. You can label fields and use their labels instead

- If you want to refer to a field in another table (or if you have a field by the same name in another table), then the name must be preceded by the table name, also in brackets, and separated by an exclamation point: **[table name]![field name]**

- To assign a heading to the column, precede the calculation with a label followed by a colon **label:[table name]![field name]**. If you don't assign a label to a calculated field, Access will assign one of the form (Expr1, Expr2, ...) for you

- The **&** operator can be used to concatenate text fields into one field

- Standard mathematical operations can be used in expressions (+, -, *, /, ^)

Activity 17: Performing Calculations

1. Click on **New** in the Query objects

2. Select **Design View**

3. Click on **OK**

4. Add the **Orders**, **Order Details**, and **Products** tables

5. Click on **Close**

6. Add the fields **UnitPrice** and **Quantity**

7. In the field row of the 3rd column enter the expression
   Total: [Order Details]![UnitPrice]*Quantity

8. Add the fields ProductName and ShipCity

9. Choose **Totals** from the **View** menu

10. In the **Totals** row, change the entry under the calculated field to **Expression**

11. Sort the calculated field **Descending**

12. Sort ProductName and ShipCity Ascending

13. Remove the check in the **Show** row from the **UnitPrice** and **Quantity** fields

Orders		Order Details		Products
ShipVia		**OrderID**		UnitPrice
Freight		**ProductID**		UnitsInStock
ShipName		UnitPrice		UnitsOnOrder
ShipAddress		Quantity		ReorderLevel
ShipCity		Discount		Discontinued

Field:	UnitPrice	Quantity	Total: [Order Details]![UnitPrice]*[Quantity]	ProductName	ShipCity
Table:	Order Details	Order Details		Products	Orders
Sort:					
Show:	☐	☐	☑	☑	☑
Criteria:					
or:					

14. Run the query

15. Close the query and save it with the name **Order Totals**

Activity 18: Concatenating Names and Calculate Age

1. Click on **New** in the Query objects

2. Select **Design View**

3. Click on **OK**

4. Add the **Employees** table

5. In the field row of the 1st column type: **Name: LastName & ", " & FirstName**

6. Add the **BirthDate** field

7. In the field row of the 3rd column type: **Age: (Now()-BirthDate)/365.25)**

8. Choose **Totals** from the **View** menu

9. In the **Totals** row, change the entry under the **Age** calculated field to **Expression**

Field:	Name: [LastName] & ", " & [FirstName]	BirthDate	Age: (Now()-[BirthDate])/365 ▾
Table:		Employees	
Sort:			
Show:	☑	☐	☑
Criteria:			
or:			

10. Remove the check in the **Show** row from the BirthDate field

11. Run the query

12. Close the query and save it as Employee Age

Note

To reduce the decimal places in the Age field

1. Switch back to **Design View**

2. Right click in the field row of the **Age** calculation and choose **Properties**

3. Using the drop down menu under **Format**, choose **Fixed**

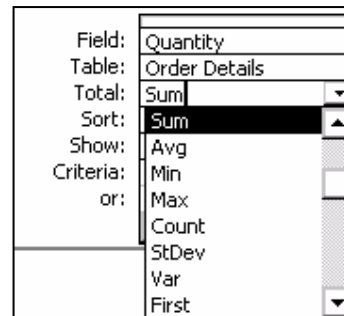4. Enter 2 for the number of decimal places

Functions Available

A standard set of calculation functions is available within Access to perform calculations on groups of records or to be included in expressions.

Function	Computes	AutoNumber	Currency	Date/Time	Number	Yes/No	Text	ALL
Sum	The total of the values in the field	X	X	X	X	X		
Avg	The average of the values in the field	X	X	X	X	X		
Min	The lowest value in the field	X	X	X	X	X	X	
Max	The highest value in the field	X	X	X	X	X	X	
Count	The number of non-blank values in the field							X
StDev	The standard deviation of the values in the field	X	X	X	X	X		
Var	The variance of the values in the field	X	X	X	X	X		
First	The value from the first record							X
Last	The value from the last record							X

To use these functions:

1. Create your query as you normally would

2. Choose **Totals** from the **View** menu

3. For the field that you want to use a function in, choose   the function from the list in the **Total** row

```
Field:    Quantity
Table:    Order Details
Total:    Sum          ▼
Sort:     Sum          ▲
Show:     Avg
Criteria: Min
    or:   Max
          Count
          StDev
          Var
          First        ▼
```

Advanced Queries

Action Queries

Action queries are used to change or delete data in a table. This category includes Update, Delete, Append, and Make Table queries. Since these actions are very fast and could damage your files if they are not constructed correctly, you should always back up your data before using them.

Update queries add a special Update row to the QBE grid. After entering the fields that are to be updated in the grid and specifying the selection criteria, the new value is placed in the **Update** cell. If the value in the field matches the criteria, it is replaced with the value in the **Update** cell. Note that the value in the **Update** cell could be a expression or a calculation.

Append queries add a special **Append To** row to the QBE grid. Fields and criteria are entered into the grid to select the records from the table that are to be appended to another table. The **Append To** row is used to specify the table that the records are to be appended to. This could be another table in this database or it could be in another database.

The **Delete** query allows you to specify the fields and criteria that is to be used to select records for deletion. A special form of this query allows you to delete records from multiple tables.

The **Make Table** query allows you to create a new table from the results of a query. The fields and criteria are used to select records for the new table. Access prompts you for the name of the new table.

A combination of these queries is frequently used to complete a change to a database. A Make Table query might be used to create a copy of completed records from a table. A Delete query might then be used to remove the records completely from the original table. Finally, an Append query might be used to merge the completed records into a table that contains other completed records.

Parameter query

A parameter query prompts you for the selection criteria when you run the query. To create a parameter query:

1. Create a normal select query but omit the criteria. In place of the criteria, place a parameter (generally in the form of a question) inside square brackets. This text will be your meaningful prompt to enter information. Repeat this for each field that you want to define as a parameter

2. Choose **Parameters** from the **Query** menu to bring up the Parameter Dialog Box

3. In the dialog box, enter the first parameter exactly as it is in the criteria cell but without the square brackets. The data type of the parameter should match the data type of the field

4. Repeat for each parameter in the sequence that you want to be prompted for and then click **OK**

Notes on Parameters

- If you have more than 1 parameter in a query, you will be prompted for the input in the order that the fields are entered into the Query Parameter dialog window

- You can use wildcard in your parameters. When you enter you're your parameter into the criteria area, add the work **like** in front of the criteria – **Like [Country?]**

Activity 19: Parameter Query

1. Click on **New** in the Query objects

2. Select **Design View**

3. Click on **OK**

4. Add the **Customer** table

5. Click on **Close**

6. Add the **CompanyName**, **City**, and **Country** fields

7. In the criteria row under the Country field enter **[Country?]**

8. Choose **Parameters** from the **Query** menu

9. Type **Country?** In the first cell of the first row

10. Leave the data type as Text

11. Run the query – You will be prompted for a country name

12. Close the query and save it as **Company By Country**

Report Basics

Why use Reports?

Printed documents can be obtained by printing the table or query datasheet or by printing a form. However, using a report to prepare printed output can give you more control over how the data is displayed. A report is information that has been organized and formatted to meet your specifications. It gives you a way to retrieve and present data as meaningful information. You can create reports that will:

- Organize and present data in groups

- Calculate running totals, group totals, grand totals, and percentages

- Include subforms, subreports, and graphs

- Create mailing labels

- Present the data in an attractive format with fonts, lines, and pictures

Report Views

View	Description
Design View	Used to create and alter the report appearance
Print Preview	Used to check the data for the entire report. It is available from the **File** menu or from the View button on the toolbar
Layout Preview	Used to check the font, font size, and general layout of the report. Sample Preview displays all sections of the report and a few detail records. It is available from the **File** menu or from the View button on the toolbar.

Creating Reports

Using the AutoReport Wizard:

The fastest way to create a report is with one of the AutoReport Wizards. These wizards produce columnar or tabular reports automatically without prompting you for information. This is what we did in the *Introduction to Access* workshop.

Using other Report Wizards:

Other report wizards are available that interact with the user during the report creation process. Even experienced users will find the wizards a quick and easy way to create a basic report that can be later modified to meet some unusual specifications.

- **Mailing Label Report:** the Label Wizard produces standard Avery labels for select fields

- **Charts:** the Charts Wizard converts numerical data into meaningful graphs similar to the charts created in Excel or Lotus

- **Groups, Totals, and Summary Report:** part of the Report Wizard; groups selected fields from records together and displays totals for each group

Using one of the Report Wizards

- Click on the **Reports** object, then click on the **New** button

- Select the table or query that is to serve as the basis for the report

- Select one of the wizards from the list and click on **OK**

- If necessary, follow the directions in the wizard dialog box

Creating a Report from Scratch

- Click on the **Reports** object, then click on the **New** button

- Select the table or query that is to serve as the basis for the report

- Select the **Design View** option and click on **OK**

- Design the report using the Control Toolbox buttons
  These tools are covered in detail in the *Access Form Design* workshop

Activity 20: Interactive Report Wizard

1. Click on the **Reports** object

2. Click on **New**

3. Select **Report Wizard**

4. Choose the **Order Info Sorted by Company** query from the list

5. Click on **OK**

6. Select **>>** to include all fields from this query in the report.

7. Select **by Customers**

8. Click on **Next**

9. Click on **Next**. Do not specify additional grouping fields

10. Select **ProductName** to sort by; choose ascending or descending by clicking on the button to the right of the text box

11. Select a Layout and Page Orientation

12. Click on **Next**

13. Select a style

14. Click on **Next**

15. Give the report the title **Order Report**

16. Click on **Finish**

17. Close the report, save changes if prompted
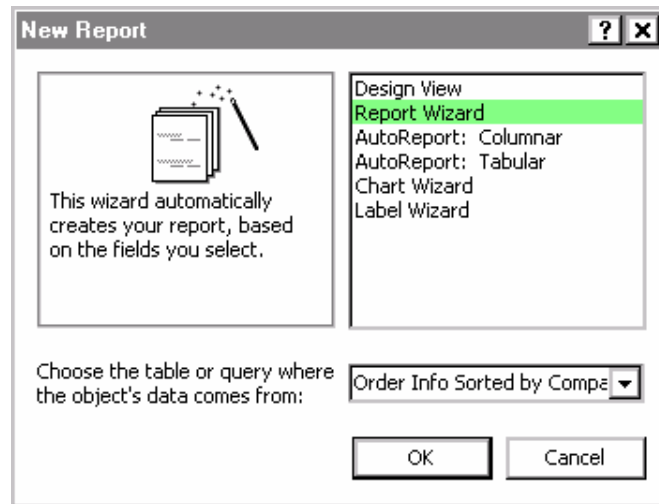
Activity 21: Create mailing Labels

1. Click on the **Reports** object

2. Click on **New**

3. Select **Label Wizard**

4. Select the **Customers** table

5. Click on **OK**

6. Choose the **Avery USA 5262** labels

7. Click on **Next**

8. Choose the font

9. Click on **Next**

10. Set up the labels. Select the field that you want to add and click on **>**. Press Enter to move down to the next line and the space bar to enter a space. If you type text onto this label, it will appear on every label that is created.

11. Click on **Next**

12. Choose **PostalCode** as the sort field

13. Click on **Next**

14. Enter a title for the report

15. Click on **Finish**

16. Close the report. Save changes if prompted

Modifying Reports

Report layout and appearance must be changed in design view after the report is initially created.

To modify an existing report:

1. Click on the Reports object

2. Select the name of the report that you want to modify

3. Click on the Design button

Adjusting Controls

> **Cut, Copy, and Paste:**
>
>> These functions work the same as they do in other Windows software
>
> **Move:**
>
>> Controls on a report can be moved by selecting the control and dragging it to the new location. If a control is already selected, you can move the control when the cursor changes to a hand.
>
> **Re-Size:**
>
>> Controls on a report can be resized by selecting the control and then positioning the cursor over one the black boxes surrounding the control. Click and drag to change the size.
>
> **Re-Size report sections**
>
>> Report sections can be resized by dragging the lower border up or down

Activity 22: Modify the Order Report

1. Select the **Order Report**

2. Click on **Design**

3. Change the text in the title control text box.

4. Change the font, color, and placement of the title

5. Insert a logo in the header section

6. Change the size of the header section

7. Insert a page break in above **CompanyName**

8. Change any other controls properties

9. Save the changes to the report

10. Switch to **Print Preview** to view the changes

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