



HILLSBOROUGH
Community College

Microsoft Access 2003
Module 3

<http://pds.hccfl.edu/pds>

Microsoft Access 2003: Module 3

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Objectives

At the end of this training session you will be able to:

1. Import a table from Excel;
2. Import data from a delimited text file;
3. Export an Access file to Excel;
4. Understand the purpose of Aggregate Functions;
5. Create and run a query using count;
6. Create and run a query using average;
7. Create and run a query using the parameter between.

Import a Table From Excel

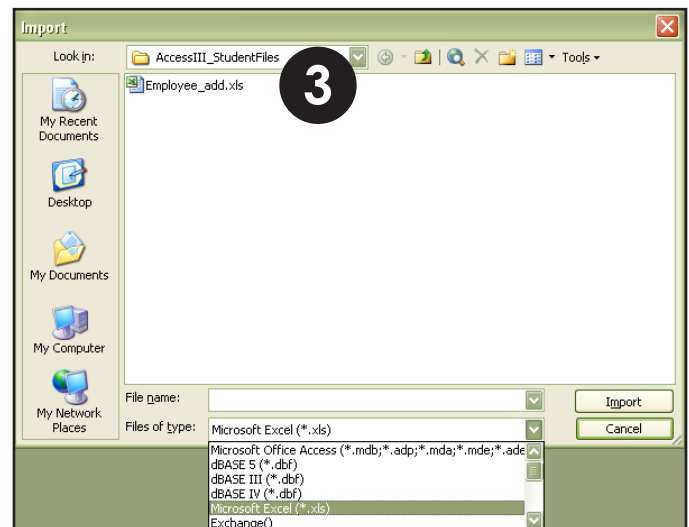
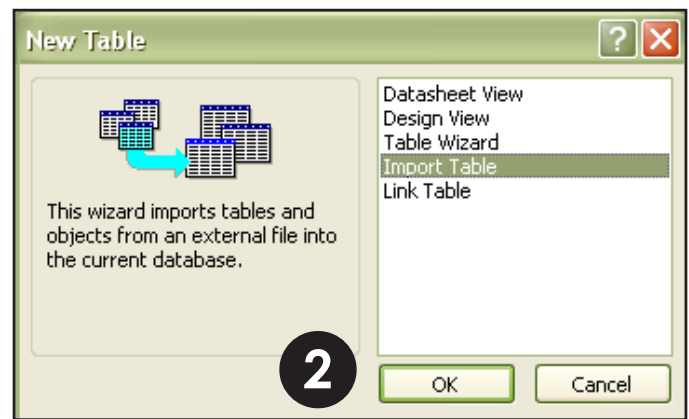
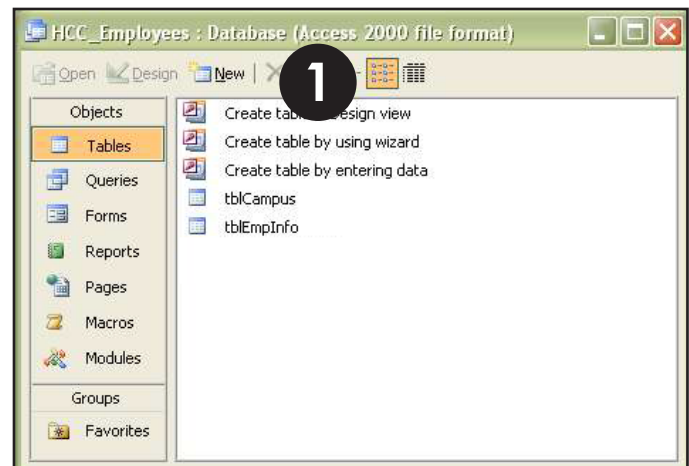
A query allows for table inquiries. A query can change, delete, add, or arrange data to tables. A query aids in gathering information for forms and reports.

With a query a user asks questions and sets parameters.

In this example, we are using the AccessIII_StudentFiles folder located on your computer's desktop and the HCC_Employees database.

1. Under the **Objects** bar, click on **Tables** and click on **New** on the Database window toolbar.
2. After the New Table dialog box appears, click on **Import Table** and click on **OK**.
3. Click on the down arrow to choose the file type and select the file name to import.

e.g. **Microsoft Excel** and **Employee_add.xls**



4. Select the table to insert and click on **Import**.

e.g. **Employee_add**

5. Select which worksheet or range to import by clicking on the **Show Worksheets** or **Show Named Ranges** radio button.

e.g. **Show Worksheets**

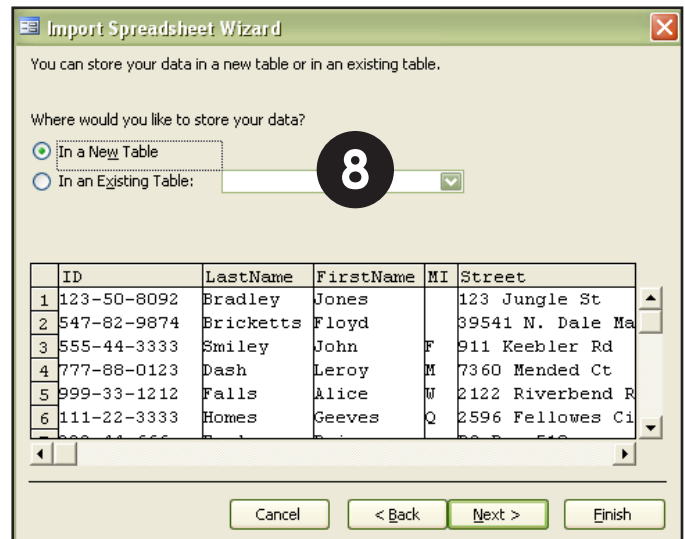
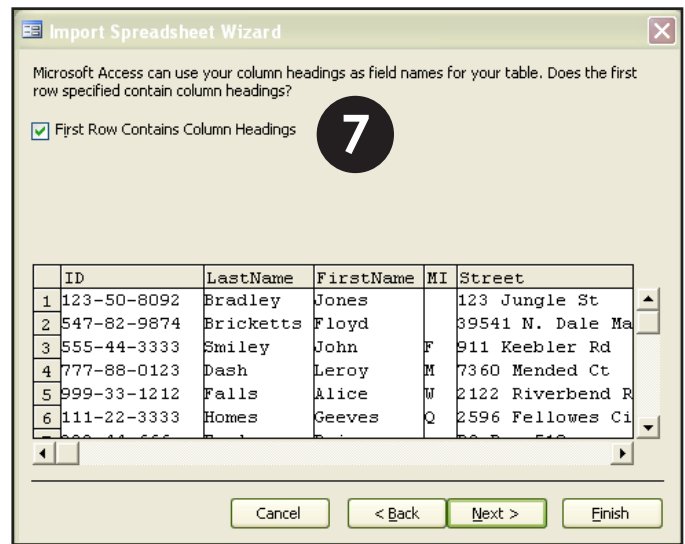
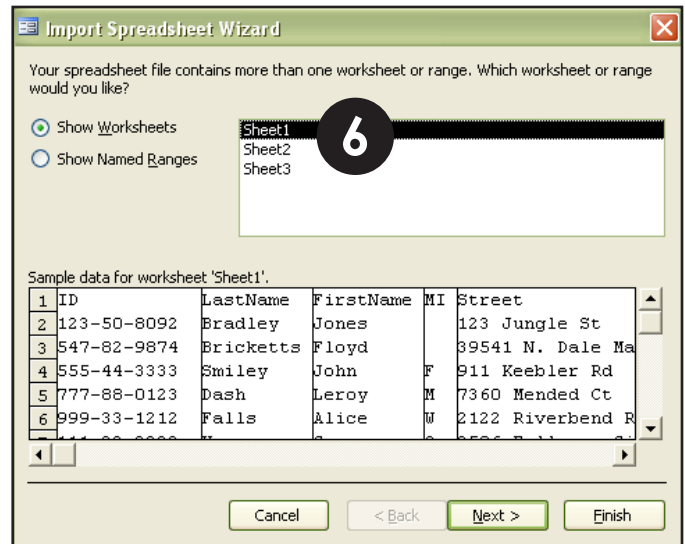
6. Select the sheet or sheet range to import and click on **Next**.

e.g. **Sheet1**

7. Add a check mark by clicking on the **First Row Contains Column Headings** and click on **Next**. Adding this check mark specifies that the first row contains a column heading.

8. Click on the **In a New Table** or **In an Existing Table** radio button and click on **Next**.

e.g. **In a New Table**



9. Choose primary key setting and click on **Next**.

In this example the ID is the primary key; however, Access can choose a primary key. Also you can choose a primary key or choose not to have any primary key.

10. Type a name for the table and click on **Finish**.

e.g. **tblEmployeeAddresses**

Import Spreadsheet Wizard

Microsoft Access recommends that you define a primary key for your new table. A primary key is used to uniquely identify each record in your table. It allows you to retrieve data more quickly.

Let Access add primary key.
 Choose my own primary key. ID **9**
 No primary key.

	ID	LastName	FirstName	MI	Street
1	123-50-8092	Bradley	Jones		123 Jungle St
2	547-82-9874	Bricketts	Floyd		39541 N. Dale Ma
3	555-44-3333	Smiley	John	F	911 Keebler Rd
4	777-88-0123	Dash	Leroy	M	7360 Mended Ct
5	999-33-1212	Falls	Alice	W	2122 Riverbend R
6	111-22-3333	Homes	Geeves	Q	2596 Fellowes Ci

Cancel < Back Next > Finish

Import Spreadsheet Wizard

That's all the information the wizard needs to import your data.

Import to Table:
tblEmployeeAddresses **10**

I would like a wizard to analyze my table after importing the data.
 Display Help after the wizard is finished.

Cancel < Back Next > Finish

Import from a Delimited Text File

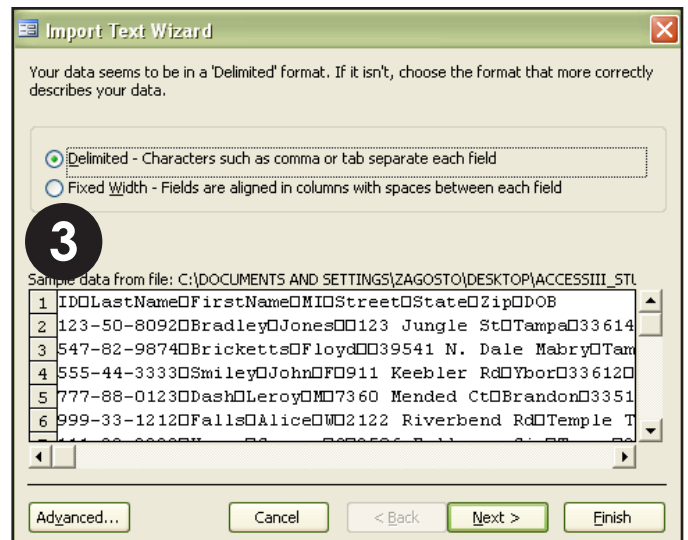
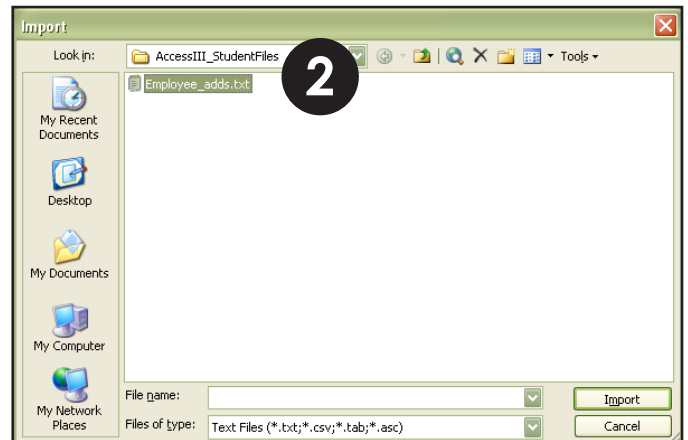
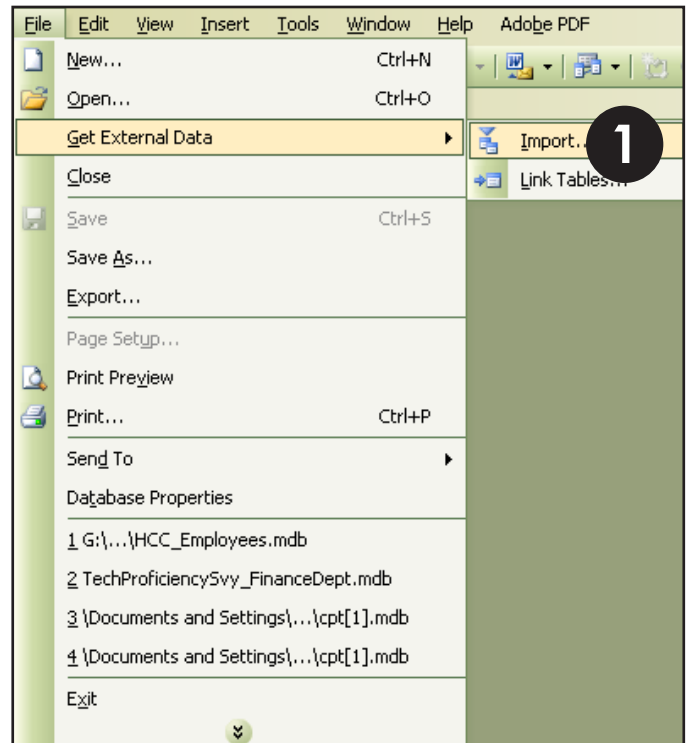
A delimited text file contains records that end in a carriage return. All fields are separated from each other by a comma, space, or special characters.

1. Click on **File>Get External Data>Import**.
2. Click on the down arrow to choose file type. Locate file to import and click on **Import**.

e.g. File Type: **Text Files**
 Location: **Desktop>AccessIII_StudentFiles**
 File Name: **Employee_adds**

3. Choose a Delimited format and click on **Next**.

e.g. **Delimited**



4. Select the delimiter type; add a checkmark to **First Row Contains Field Names** checkbox and click on **Next**.

e.g. **Tab**

5. Select where to store the data and click on **Next**.

e.g. **In a New Table**

6. Specify information about each of the imported fields, modify **Field Options** (as necessary), and click on **Next**. Under **Indexed** choose, index format.

e.g. **Field Name:** ID
Indexed: Yes (No Duplicates)

What delimiter separates your fields? Select the appropriate delimiter and see how your text is affected in the preview below.

Choose the delimiter that separates your fields:

Tab Semicolon Comma Space Other:

First Row Contains Field Names Text Qualifier: {none}

ID	LastName	FirstName	MI	Street
123-50-8092	Bradley	Jones		123 Jungle St
547-82-9874	Bricketts	Floyd		39541 N. Dale Mab
555-44-3333	Smiley	John	F	911 Keebler Rd
777-88-0123	Dash	Leroy	M	7360 Mended Ct
999-33-1212	Falls	Alice	W	2122 Riverbend Rd
111-22-3333	Homes	Geeves	Q	2596 Fellowes Cir

Advanced... Cancel < Back Next > Finish

You can store your data in a new table or in an existing table.

Where would you like to store your data?

In a New Table In an Existing Table

ID	LastName	FirstName	MI	Street
123-50-8092	Bradley	Jones		123 Jungle St
547-82-9874	Bricketts	Floyd		39541 N. Dale Mab
555-44-3333	Smiley	John	F	911 Keebler Rd
777-88-0123	Dash	Leroy	M	7360 Mended Ct
999-33-1212	Falls	Alice	W	2122 Riverbend Rd
111-22-3333	Homes	Geeves	Q	2596 Fellowes Cir

Advanced... Cancel < Back Next > Finish

You can specify information about each of the fields you are importing. Select fields in the area below. You can then modify field information in the 'Field Options' area.

Field Options

Field Name: ID Data Type: Text

Indexed: Yes (Duplicates OK) Do not import field (Skip)

ID	LastName	FirstName	MI	Street
123-50-8092	Bradley	Jones		123 Jungle St
547-82-9874	Bricketts	Floyd		39541 N. Dale Mab
555-44-3333	Smiley	John	F	911 Keebler Rd
777-88-0123	Dash	Leroy	M	7360 Mended Ct
999-33-1212	Falls	Alice	W	2122 Riverbend Rd
111-22-3333	Homes	Geeves	Q	2596 Fellowes Cir

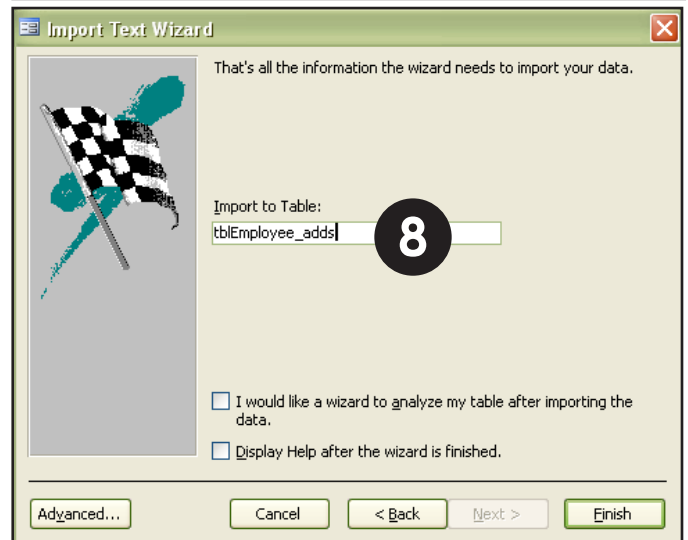
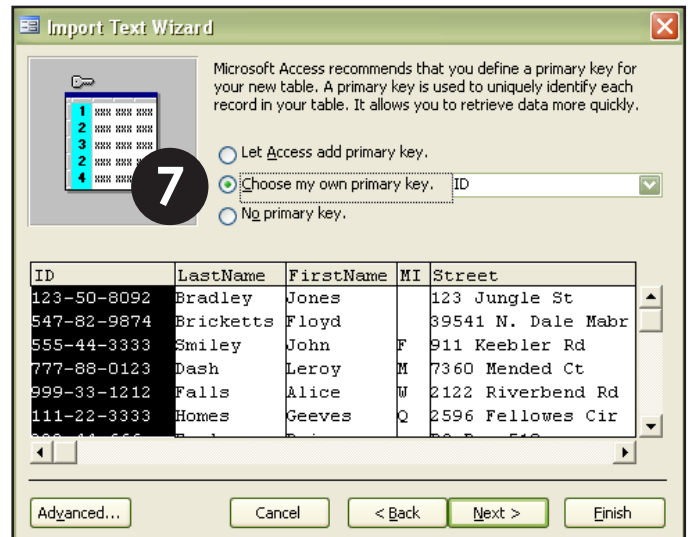
Advanced... Cancel < Back Next > Finish

7. Define the primary key and click on **Next**.

e.g. **Choose my own primary key-ID**

8. Type a name for the file and click on **Finish**.

e.g. **tblEmployee_adds**



Export an Access File to Excel

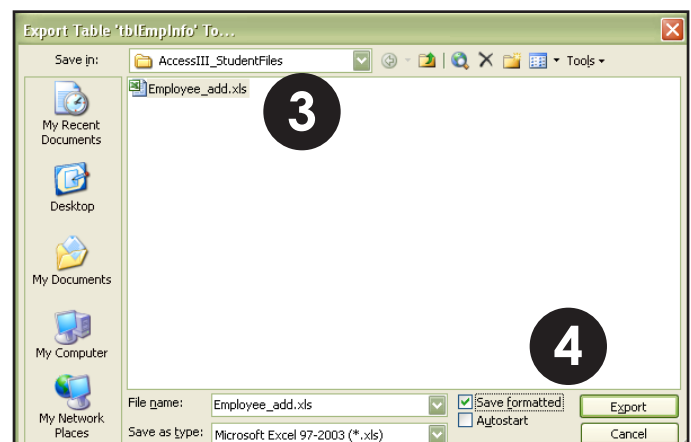
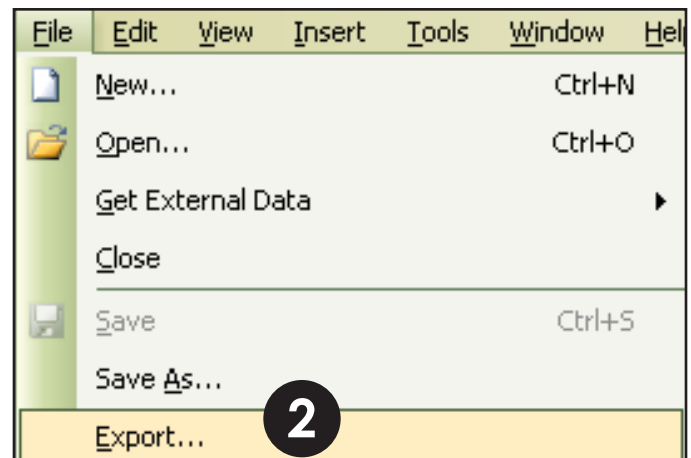
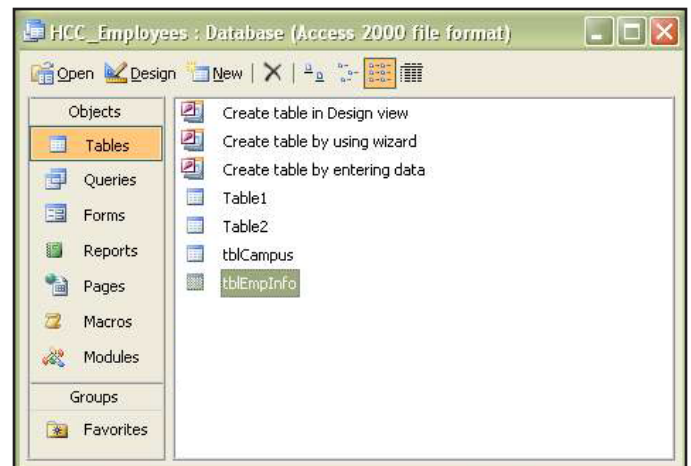
In this example, click on Tables under Objects and select the table tblEmpInfo.

1. Select the object to import.
e.g. **tblEmpInfo**
2. From the menu bar, click on **File>Export**.
3. Click on the down arrow to choose the file type and locate the file name.

e.g. File type: **Microsoft Excel 97-2003**

File: **tblEmpInfo**

4. Add a checkmark to the **Save formatted** checkbox and click on **Export**.



Aggregate Functions

Aggregate functions within Access allows the user to carry out simple mathematical operations within a query. Aggregate functions (operations) include sum, average, minimum, maximum, count, standard deviation and variance. Aggregate functions can be accessed by selecting the Totals button on the query design toolbar or typing the aggregate function in Total row of the Design grid.

Aggregate Function

Description

Sum

Determines the sum of field values. Supports the following data types: AutoNumber, Currency, Date/Time and Number.

Avg

Calculates the average of field values. Supports the following data types: AutoNumber, Currency, Date/Time and Number.

Min

Determines the lowest field value. Supports the following data types: AutoNumber, Currency, Date/Time, Number and Text.

Max

Determines the highest field value. Supports the following data types: AutoNumber, Currency, Date/Time and Number.

Count

Determines the number of records in a field. Supports the following data types: AutoNumber, Currency, Date/Time, Memo, Number, OLE Object, Text and Yes/No.

StDev

Calculates the standard deviation of a field value. Supports the following data types: Currency or Number.

Var

Calculates the statistical variances of a field. Supports the following data type: Currency.

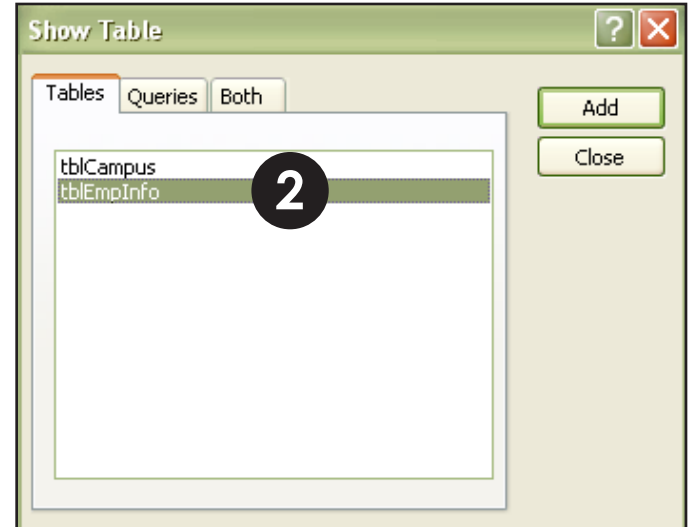
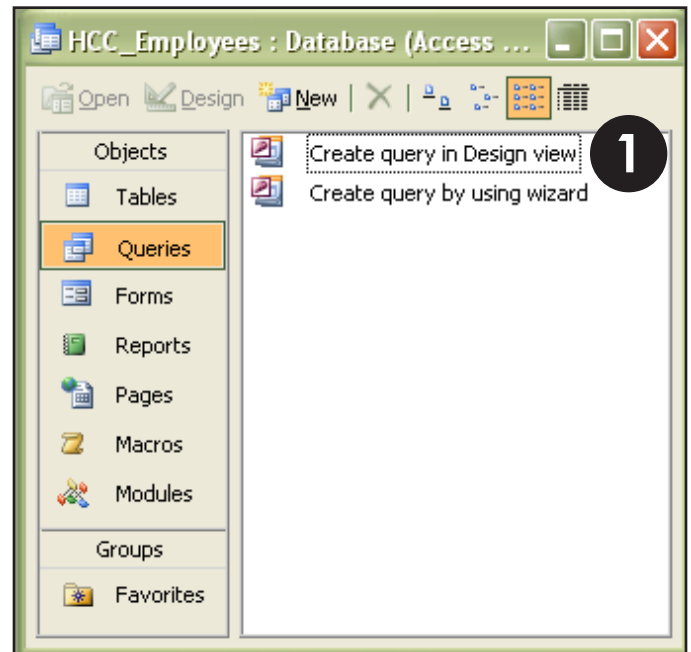
Query: Using the Aggregate Function Count



Using the aggregate function Count is useful when a simple count or tally of information is required.

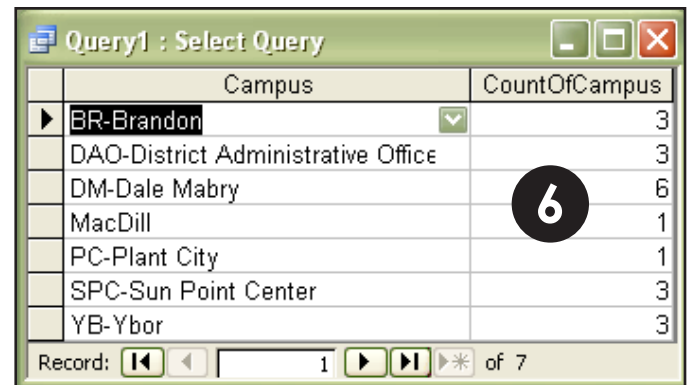
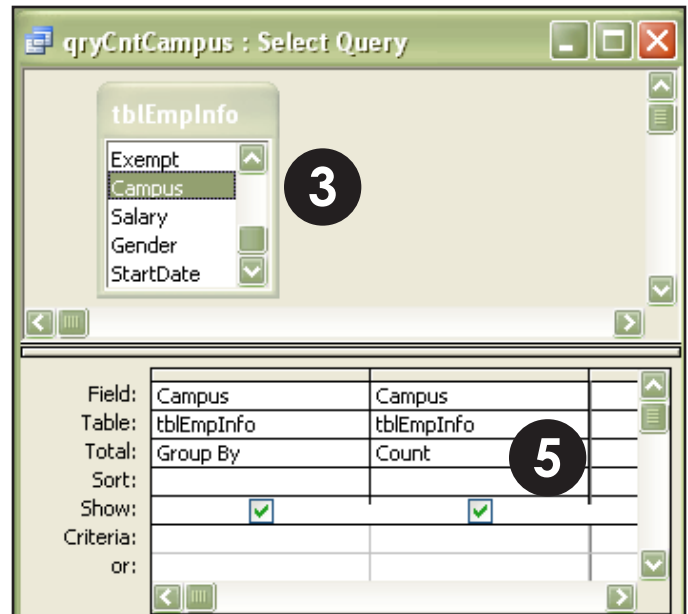
Use the HCC_Employees database.

1. Under Objects bar, select **Queries** and double click on **Create a query in Design view**.
2. Select the tables and/or queries to show and click **Add**.

e.g. **tblEmpInfo**



3. Double click on the field name from the table or query twice to appear in the Field design grid.
e.g. **Campus**.
4. Click on the **Totals**  button located on the Query Design toolbar. The Total row now appears in the design grid between Table and Sort.
5. Select the aggregate function on the second field and click on the Run  button.
e.g. **Count**.
6. Result of query using the aggregate function Count.
7. Save the query as **qryCntCampus**.



Activity

Create a query for gender using the aggregate function Count. Save the query as qryCntGender

How many are males? How many are females?

How could using the aggregate function Count be useful to you?

Query: Using the Aggregate Function Avg

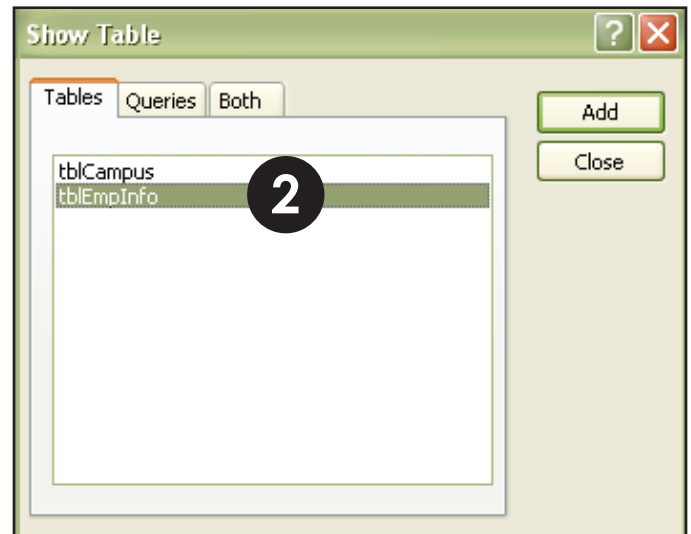
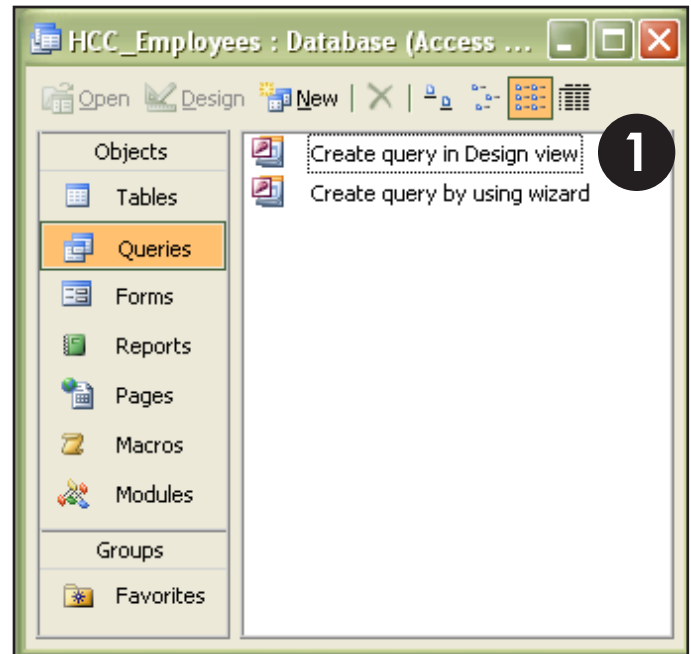
Using the aggregate function Avg (average) is useful when an average of information is required.



Use the HCC_Employees database.

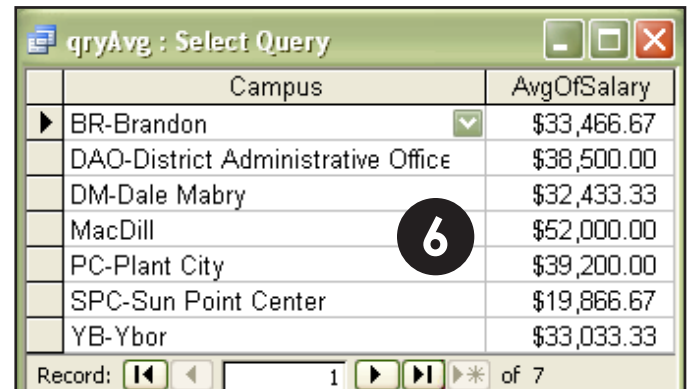
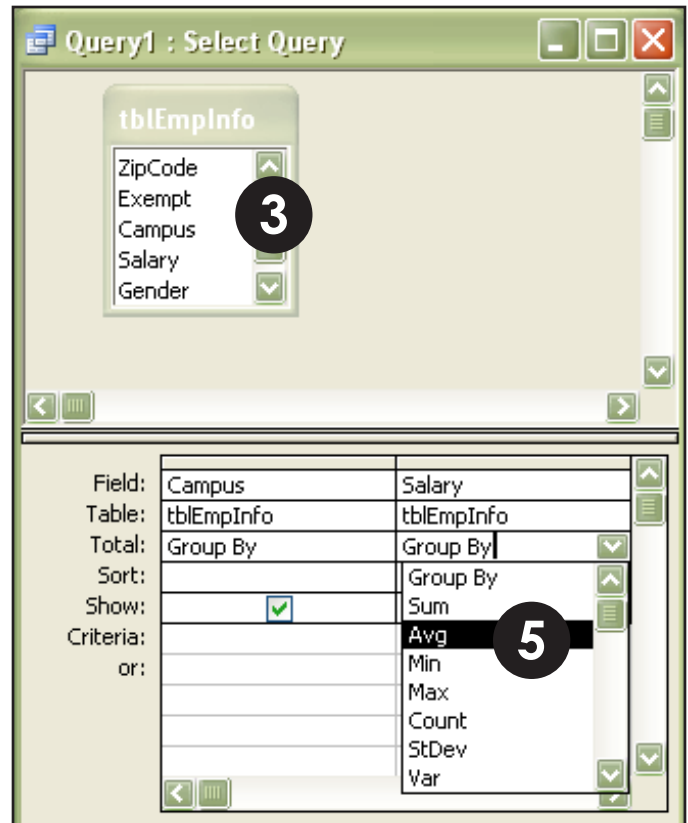
In this example, we are determining the average salary by campus.

1. Under Objects bar, select **Queries** and double click on **Create a query in Design view**.
2. Select the tables and/or queries to show and click **Add**.

e.g. **tblEmpInfo**



3. Double click on the field names from the table to appear in the Field design grid.
e.g. **Campus** and **Salary**.
4. Click on the **Totals**  button located on the Query Design toolbar. The Total row now appears in the design grid between Table and Sort.
5. Select the aggregate function on the second field and click on the Run  button.
e.g. **Avg**.
6. Result of query using the aggregate function Average.
7. Save the query as **qryAvgSalaryCampus**.



Activity

Create a query for the average salary by gender using the aggregate function Avg. Save the query as **qryAvgSalaryGender**.

How what is the average salary for males? What is the average salary for females?

How could using the aggregate function Avg be useful to you?

Query: Using Parameters Between

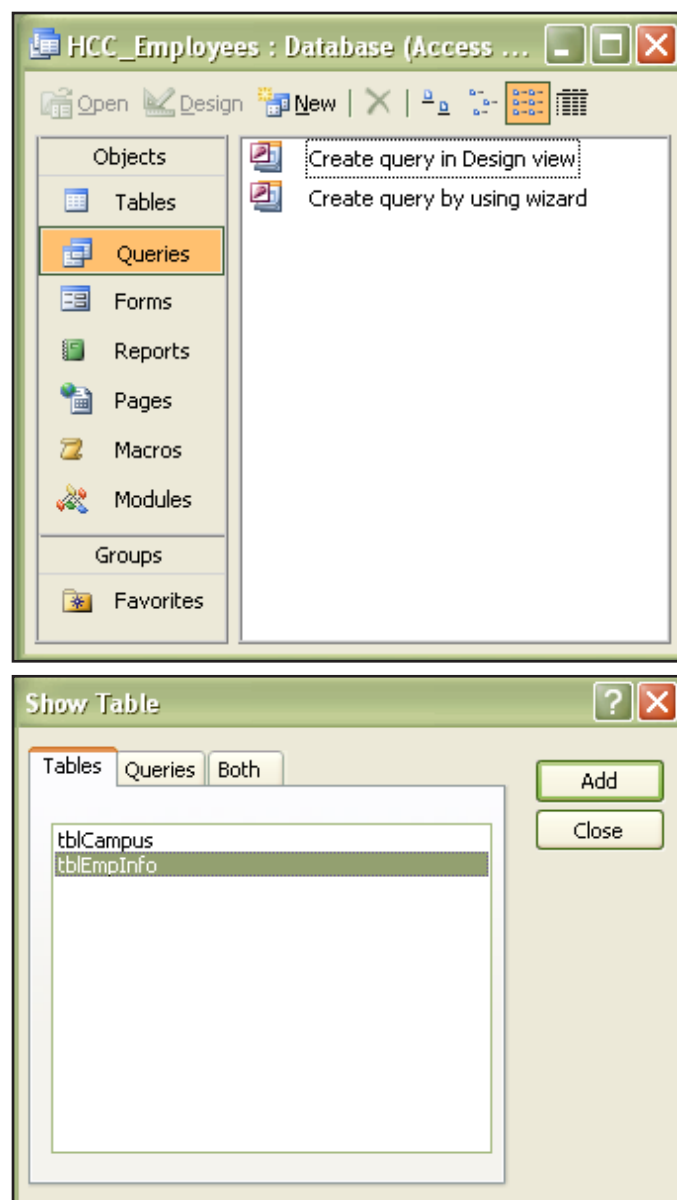
Creating a parameter query allows you to search for information in fields. However, for the parameters to function, you will have to enter the criteria and prompt (question) that will appear in the parameter dialog box.


Use the HCC_Employees database.

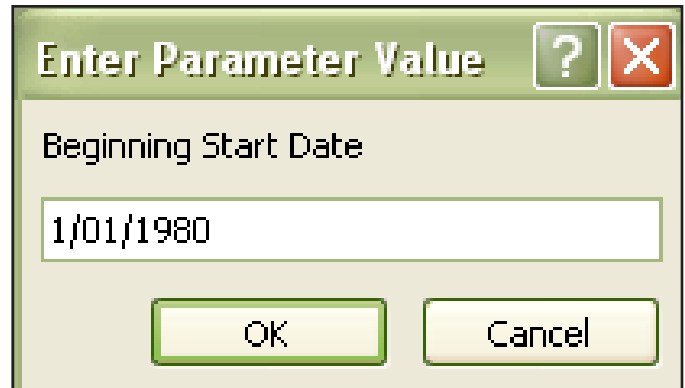
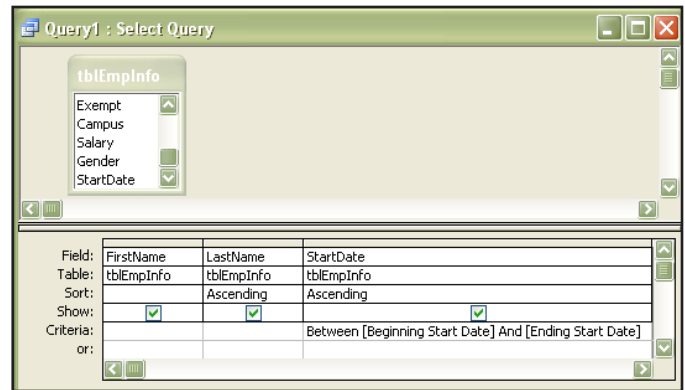
In this example, we are determining the names of the people whose start date is between 1/01/1980 and 12/31/99.

1. Under Objects bar, select **Queries** and double click on **Create a query in Design view**.
2. Select the tables and/or queries to show and click **Add**.

e.g. **tblEmpInfo**



3. Double click on the field names from the table to appear in the Field design grid.
e.g. **FirstName**, **LastName**, and **StartDate**.
4. Under StartDate Criteria type the following:
Between [Beginning Start Date] And [Ending Start Date].
5. Click on the Run  button and enter the following parameters **Beginning Start Date: 1/01/1980** and **Ending Start Date: 12/31/1999**.
6. Result of query using the parameter Between.
7. Save the query as **qryBtwnStartDate**.



Activity

Create a query using parameters. The query will show the names of people, salary and campus. Save the query as **qryBtwSalaryCampus**.

Show how many people make between \$30,000 and \$40,000 and at which campus he/she works.

What are the results for each campus?

