



Continuing Education-- Access

Session No # 1
File: Access 1.doc

Date: November 24th, 2010
Tom Gerfen, CSIS Professor

Class Notes:

Class web site: infotwg.com

About ACCESS

Overview of ACCESS

MS Office 2007

Terms uses in data bases and Access

Characters

Any individual data item that can be represented in print form

A letter, a digit, or special character

ABCDEFGH 1 2 3 4 5 6 @#\$%&*('=<>{} []

Fields (columns)

An area in a record reserved (set apart) for a specific item of data (information)

The smallest unit of information you can access. One or more adjacent record positions which contain related information (usually fixed length)

Field names are 1 - 64 characters

Record (rows)

A collection of fields. A group of related fields treated as a unit of information.

Table

A collection of records

Database

A collections of information organized in tables and stored electronically in a file

Names

File names (**.mdb** **.accdb**)

Table name, Field name, Query names, Forms and Report names etc...

Learning ACCESS Basics

Areas or Objects available in MS ACCESS

7 Areas

Tables

Queries

Forms

Reports

Pages

Macros

Modules



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You must name a file before you can start

MS Access file names = *filename*.ACCDB

TABLES (table names many)
A collection of data on specific topic organized in records (rows) and fields (columns)

Records	rows
Fields	column
Type	
Size	
Descriptions	
Properties / Attributes / options	

Field Properties / Attributes / options

- Field Size 1 - 255
- Format
- Input Mask
- Caption
- Default Value
- Validation Rule
- Validation Text
- Required (Yes / No)
- Allow Zero Length (Yes / No)
- Indexed
- ... more

Completing & Saving the Table Structure

Exiting & Reentering Access

Entering Data into tables



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A C C E S S

The development of a database follows several steps:

- **Planning:** The first step in the development of a database is to understand the purpose of the database and to plan what information your database should hold and the output you need from the database.
- **Creating:** After planning the database, you create tables to hold data by defining the table structure.
- **Entering Data:** Once a table has been set up, you enter the data to complete each record.
- **Editing:** Making changes to your tables is called editing. While entering data, you are bound to make typing and spelling errors that need to be corrected. This is one type of editing. Another is to revise the structure of the tables by adding, deleting, or redefining fields of information.
- **Creating Forms:** After you create a table, you can create a form for easier data entry. Forms also make editing easier.
- **Analyzing Data:** To analyze the data stored in your tables, you ask questions, called **queries**, of the table data. The results of queries allow you to look at only selected data or to view data in a specific format. For example, you can examine data to determine the largest sales, monthly birthdays, or to make projections.
- **Creating Reports:** To be able to print your data in a professional and attractive format, you create reports. Reports allow you to customize the appearance of the data.
- **Previewing and Printing:** The last step is to print a hard copy of the database or report. This step includes, previewing the document on screen as it will appear when printed. Previewing allows you to check the documents overall appearance and to make any final changes needed before printing.

You will find that you will generally follow these steps in order as you create your database. However, you will probably retrace steps as the final database is developed.



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The **DATA TYPE** defines the type of data the field will contain. Access uses the data type to ensure that the right kind of data is entered in a field. It's important to choose the right data type for a field before you start data the table. You can change a data type after the field contains data, but if the data types are not compatible, such as a text entry in a field whose data type accepts numbers only, you may lose data. Nine data types are described below.

Text Text entries (Words, combinations of words and numbers, numbers that are not used in calculations) up to **255 characters** in length. Names and phone numbers are examples of Text field entries. Text is the default data type and the size is 50 or 255 (depending on the default) characters.

Memo Text that is variable in length and usually too long to be stored in a Text field. A maximum of **64,000 characters** can be entered in a Memo field.

Number **Digits only.** Number fields are used when you want to perform calculations on the values in the fields in the field. Number of employees is an example on a number field entry

Date/Time Any valid date. Access only allows dates from January 1, 1000 to December 31, 9999. Access correctly handles leap years and checks all dates for validity. You cannot set the field size in Date/Time fields.

Currency Exactly like Number fields, but formatted to display **decimal places** and a **currency symbol \$**. You can change the number of decimal places but not the field size in a Currency field.

AutoNumber A unique, sequential number that is automatically incremented by one whenever a new record is added to a table.

Yes / No Accepts only **Yes/No, True/False**, or On/Off entries. You cannot change the field size for a Yes/No field.

OLE Object An object, such as a graphic (picture), sound, document, or spreadsheet, that is linked to or embedded in a table.

Hyperlink Hyperlink specifies a path to a file on your hard drive, a UNC path, or URL in the Link to File or URL box. Or click the Browse button to navigate to a file on a local area network or a file on an FTP server that you've registered.

Lookup Wizard A list of options you choose from another table in the database. Choosing this data type starts the Lookup Wizard.

Attachment Attach a document to the record (like a Word image or an Excel workbook)



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Microsoft ACCESS
Creating Tables
Fields and Field Types
Field Properties / Attributes

Field Name	Data Type	Description
	▼	

Text	Auto Number
Memo	Yes / No
Number	OLE Object
Date / time	HyperLink
Currency	Lookup Wizard

Field Properties / Attributes / Options

Switch to this **F6**

<i>General</i>	
Field Size	
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	(Yes / No)
Allow Zero Length	(Yes / No)
Indexed	
... more	



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Control page icons



Enter the data
Print a table
Saving the file and table
Opening the file and table

Copy the following ACCESS file to your storage device

Drive K: | CIS | | _____
Filename .

Review of Access

Open file
Toolbars

Objects

Tables
Data
Queries

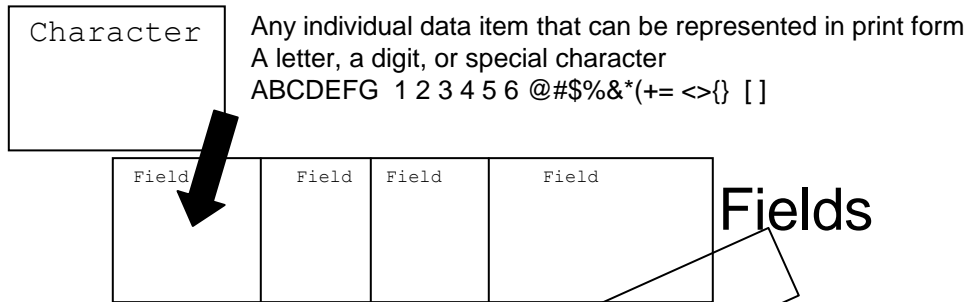


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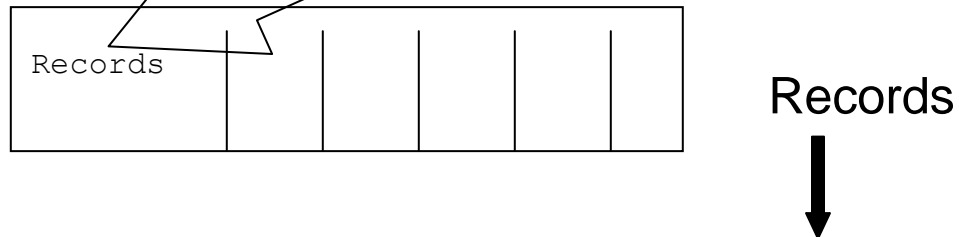
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T a b l e s

DATA BASES

A collections of information organized in tables, queries, reports and forms and stored electronically in a file (data base)



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Table Name: _____ •

Table

Table Name:

ID	Last Name	First Name	Address	City	State	Zip	DOB	Phone
1								
2								
3								
4								
5								
6								

Field Name
 Date Type
 Field Size
 Description

 Other attributes



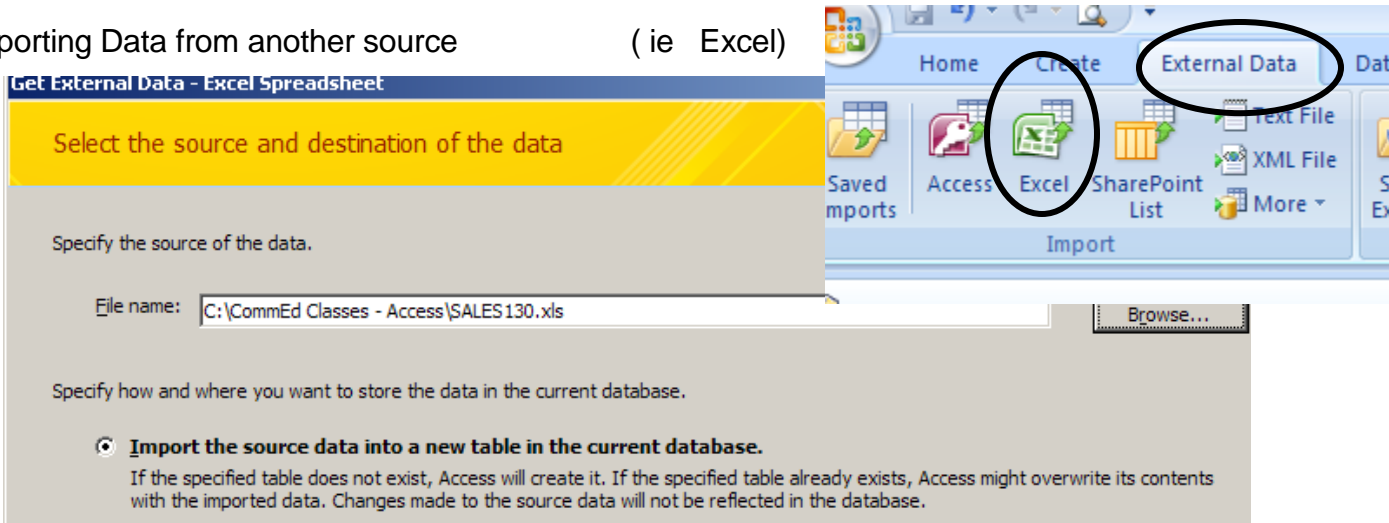
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Importing Data from another source (ie Excel)



Get External Data - Excel Spreadsheet

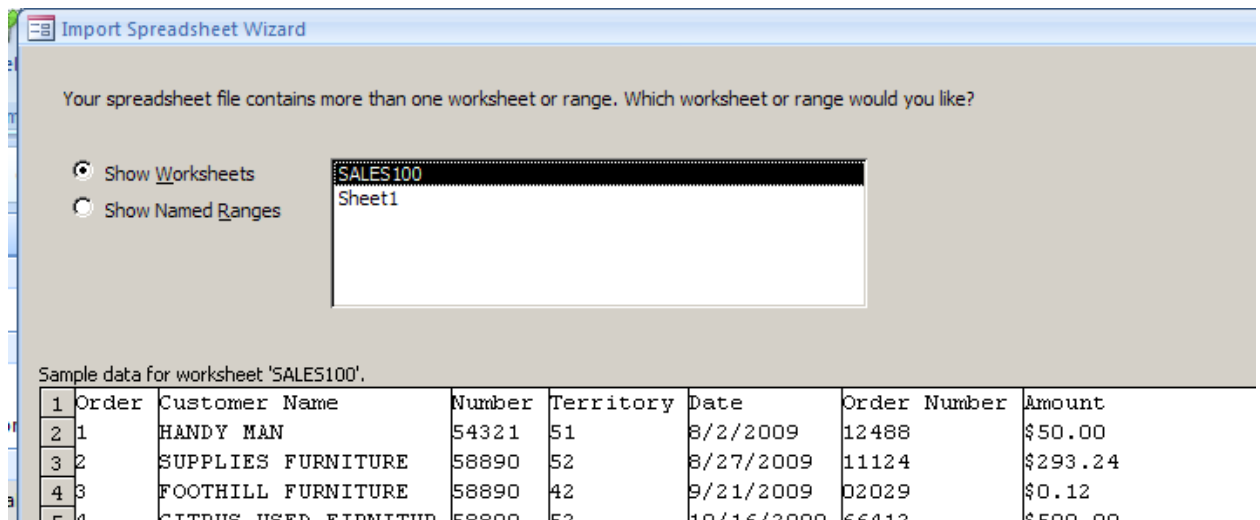
Select the source and destination of the data

Specify the source of the data.

File name:

Specify how and where you want to store the data in the current database.

Import the source data into a new table in the current database.
If the specified table does not exist, Access will create it. If the specified table already exists, Access might overwrite its contents with the imported data. Changes made to the source data will not be reflected in the database.



Import Spreadsheet Wizard

Your spreadsheet file contains more than one worksheet or range. Which worksheet or range would you like?

Show Worksheets
 Show Named Ranges

SALES100
Sheet1

Sample data for worksheet 'SALES100'.

Order	Customer Name	Number	Territory	Date	Order Number	Amount
1	HANDY MAN	54321	51	8/2/2009	12488	\$50.00
2	SUPPLIES FURNITURE	58890	52	8/27/2009	11124	\$293.24
3	FOOTHILL FURNITURE	58890	42	9/21/2009	02029	\$0.12
4	CITRUS HILL FURNITURE	58890	52	10/16/2009	66412	\$500.00

Microsoft Access can use your column headings as field names for your table. Does the first row specified contain column headings?

First Row Contains Column Headings



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

Field Options

Field Name: Data Type:

Indexed: Do not import field (Skip)

	Order	Customer Name	Number	Territory	Date	Order N
1	1	HANDY MAN	54321	51	8/2/2009	12488
2	2	SUPPLIES FURNITURE	58890	52	8/27/2009	11124

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

Let Access add primary key.
 Choose my own primary key.
 No primary key.

Name the table _____

Import to Table:



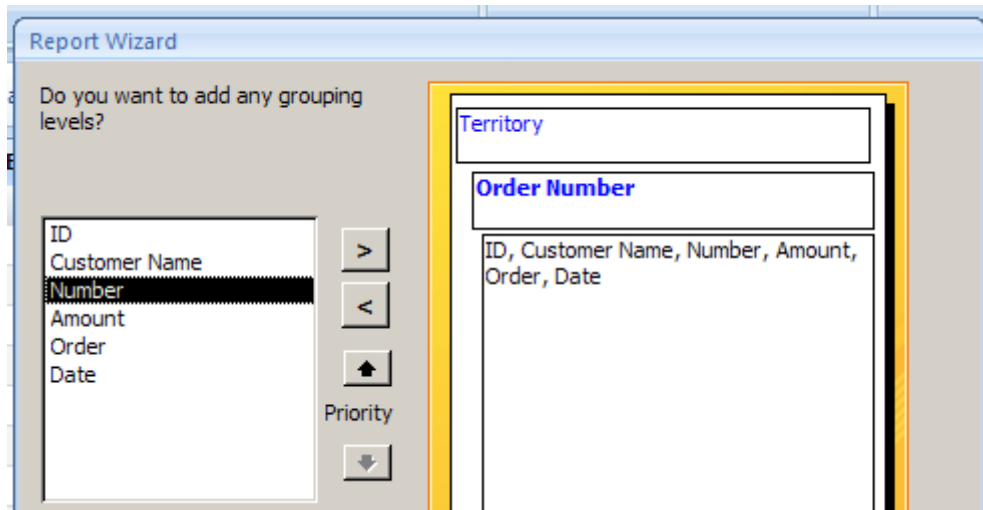
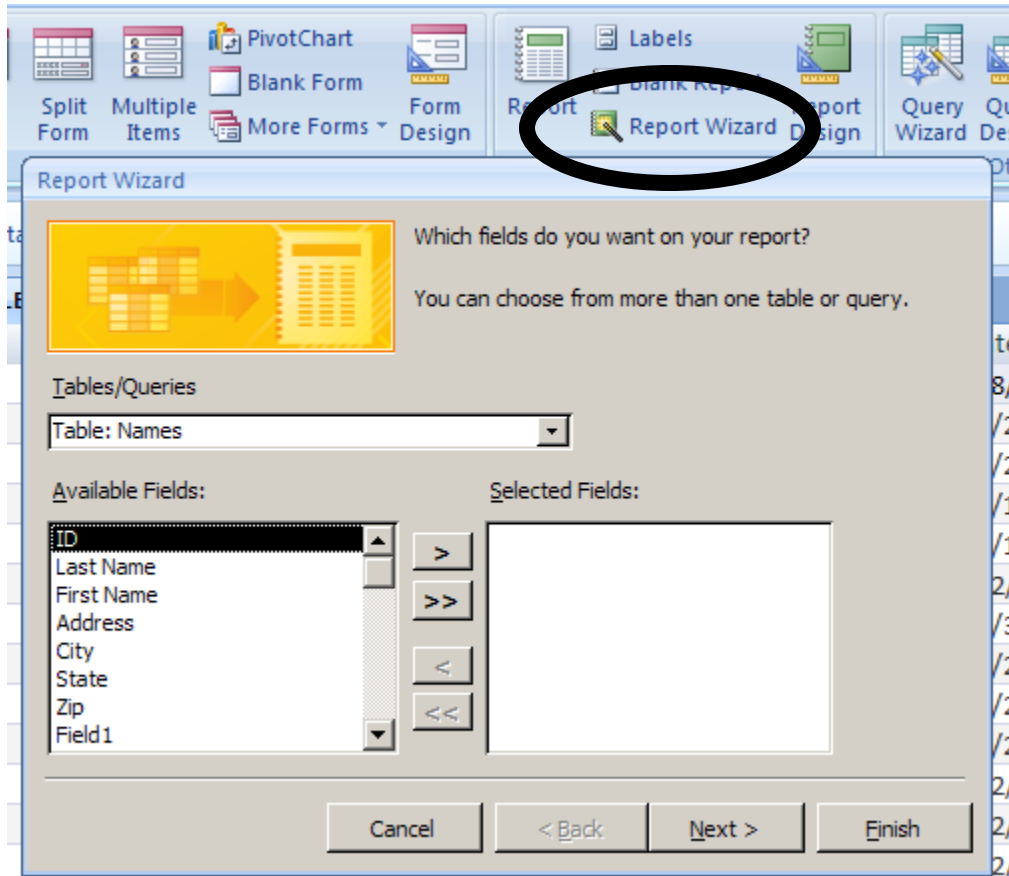
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Create a Report





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Report Wizard

What sort order and summary information do you want for detail records?

You can sort records by up to four fields, in either ascending or descending order.

1	Customer Name	Ascending
2	(None)	Descending
3	ID	Ascending
	Customer Name	
	Number	
	Amount	
	Order	

Layout

Stepped

Block

Outline

Orientation

Portrait

Landscape

What TITLE do you want on your report ?

What title do you want for your report?

SALES100



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Sample Page Preview

Content in the database has been disabled Options...

A B C Sales for 2009							
Territory	ID Order	Customer Name	Number	Date	Order Nu	Amount	
01	111 111	GENIE DOOR OPENER	66554	11/27/2009	89865	\$22.95	
01	94 94	SCHOOLS SUPPLIES	58890	10/10/2009	77001	\$878.00	
01	97 97	HANDY MAN SUPPLIES	54321	10/19/2009	87986	\$552.36	
01	89 89	HARDWARE CITY	44469	9/28/2009	81236	\$499.77	
01	30 30	HANDY MAN	54321	3/24/2009	61248	\$507.50	
01	88 88	HARDWARE CITY	44469	9/25/2009	51123	\$350.00	
01	31 31	PAPERS R US	54321	3/27/2009	32565	\$5.00	
01	102 102	CITY HARDWARE	44469	10/31/2009	44356	\$98.32	

Right Mouse Click



- Save
- Close
- Close All
- Report View
- Layout View
- Design View
- Print Preview



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