



Microsoft Access 2010

Part 1: Introduction to Access

Fall 2014, Version 1.2

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Introduction

Microsoft Access 2010 is a powerful relational database program that can be used to track, share, and report information. It provides access to a large library of professionally designed templates; wizards that automatically create tables, queries, forms, and reports; and extensive local and online help resources. This handout provides an overview of the Access 2010 user interface and covers how to perform basic tasks such as opening and closing databases, managing database objects, creating new databases, creating and modifying tables, and getting help.

Starting Access

You can start Access 2010 from the Start menu (in Windows 7) or by opening an existing Access file. When you start the program without opening a specific file, the *Backstage* view opens, prompting you to create a new database or open an existing database.

To start Access 2010 from the Start menu:

1. Click the **Start** button, click **All Programs**, click **Microsoft Office**, and then click **Microsoft Access 2010**. The **New** page of the **Backstage** view opens, displaying thumbnails of the available templates and template categories (see Figure 1).
2. Under **Available Templates**, click **Blank database**.
3. Click the **Create** button. A blank database opens in the program window and a blank table named **Table1** opens in **Datasheet** view.

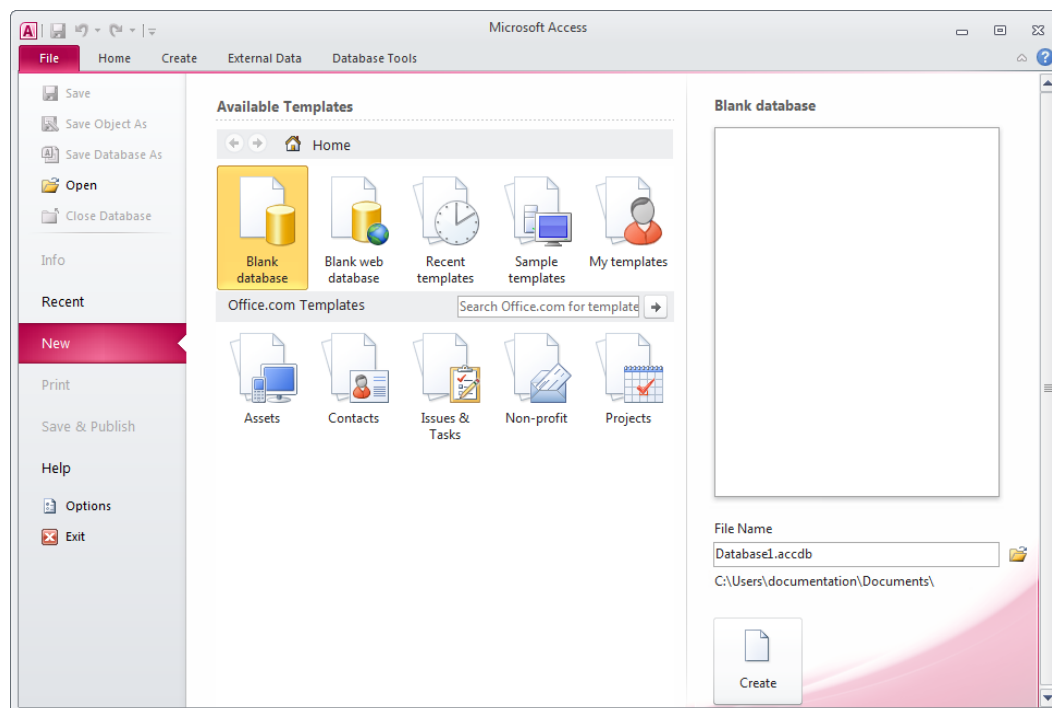


Figure 1 – New Page of the Backstage View

Overview of the User Interface

All the Microsoft Office 2010 programs share a common user interface so you can apply basic techniques that you learn in one program to other programs. The Access 2010 program window is easy to navigate and simple to use (see Figure 2 and Table 1).

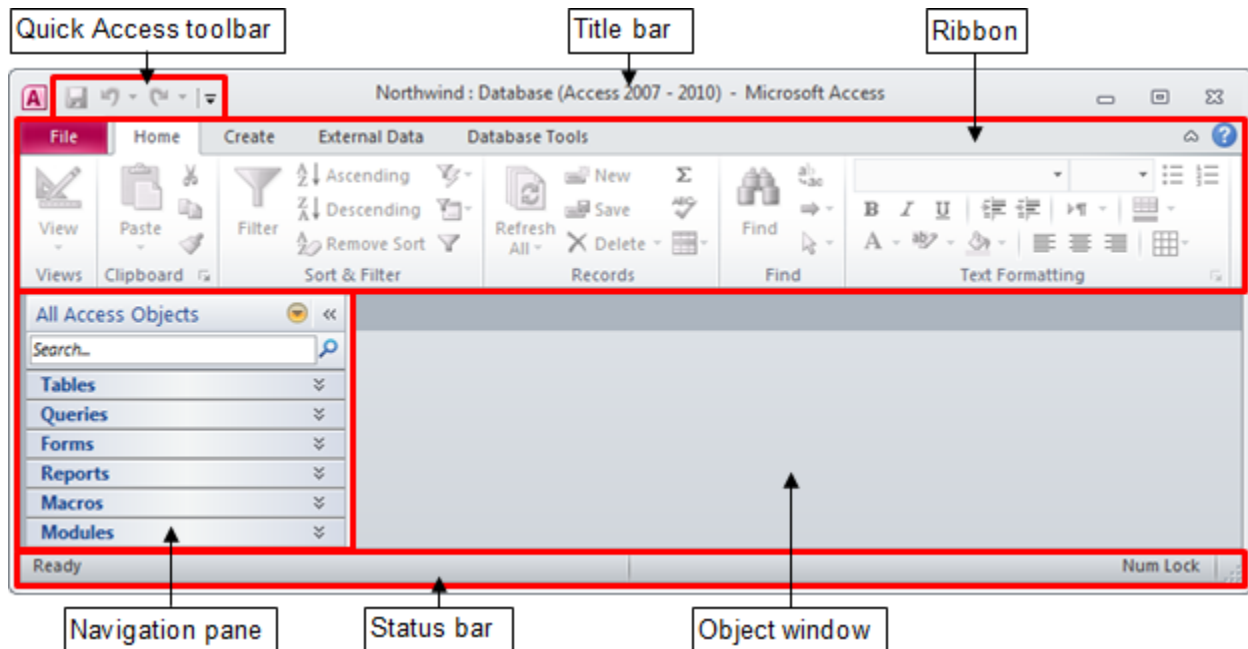


Figure 2 – Access 2010 Program Window

Table 1 – Access 2010 Program Window Elements

Name	Description
Title bar	Appears at the top of the program window and displays the name of the database and the program. The buttons on the right side of the Title bar are used to minimize, maximize, restore, and close the program window.
Quick Access toolbar	Appears on the left side of the Title bar and contains frequently used commands that are independent of the tab displayed on the Ribbon.
Ribbon	Extends across the top of the program window, directly below the Title bar, and consists of a set of tabs, each of which contains groups of related commands.
Navigation pane	Appears on the left side of the program window and displays a list of all the objects in a database.
Object window	Appears below the Ribbon and displays open database objects.
Status bar	Appears at the bottom of the program window and displays information about the database and provides access to certain program functions.

Quick Access Toolbar

The *Quick Access* toolbar provides one-click access to commonly used commands and options. By default, it is located on the left side of the Title bar and displays the Save, Undo, and Redo buttons (see Figure 3). You can change the location of the Quick Access toolbar as well as customize it to include commands that you use frequently.



Figure 3 – Quick Access Toolbar

To add a command to the Quick Access toolbar:

1. On the **Ribbon**, right-click the command that you want to add, and then click **Add to Quick Access Toolbar** on the shortcut menu.

To remove a command from the Quick Access toolbar:

1. On the **Quick Access** toolbar, right-click the command that you want to remove, and then click **Remove from Quick Access Toolbar** on the shortcut menu.

NOTE: Clicking the arrow on the right side of the **Quick Access** toolbar displays a menu which includes additional commands and options that can be used to customize the toolbar. A check mark next to an item indicates that the item is selected (see Figure 4).

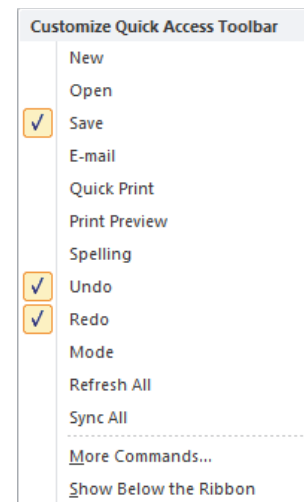





Figure 4 – Customize Quick Access Toolbar Menu

Ribbon

The *Ribbon* is designed to help you quickly find the commands that you need to complete a task. It consists of a set of task-specific tabs (see Figure 5 and Table 2). The main tabs are visible at all times. Other tabs, known as *contextual tabs*, appear only when you are working with specific database objects and in various views. These tabs are indicated by colored headers and contain commands that are specific to working with the selected object. Clicking a tab displays a set of related commands that are organized into logical groups. Commands generally take the form of buttons and lists; some appear in galleries. Some commands include an integrated or separate arrow; clicking the arrow displays options available for the command. The appearance of the buttons and groups on the Ribbon changes depending on the width of the program window. If a command on the Ribbon appears dimmed, it is unavailable. Pointing to a command on the Ribbon displays its name, description, and keyboard shortcut (if it has one) in a ScreenTip.

A *dialog box launcher*  appears in the lower-right corner of most groups on the Ribbon (see Figure 5). Clicking it opens a related dialog box or task pane which offers additional options or more precise control than the commands available on the Ribbon.

You can minimize the Ribbon to make more space available on the screen by clicking the *Minimize the Ribbon* button  on the right side of the Ribbon (see Figure 5). You can expand the Ribbon by clicking the *Expand the Ribbon* button . When the Ribbon is minimized, only the tab names are visible.

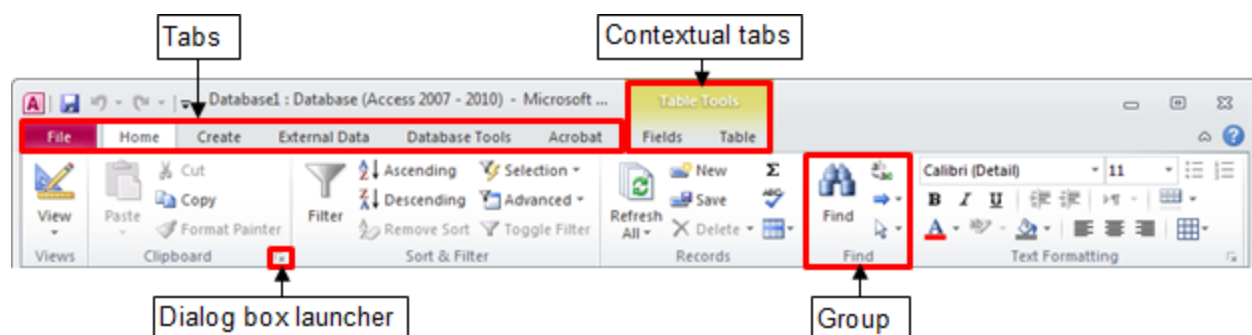


Figure 5 – Ribbon

Table 2 – Ribbon Tabs

Name	Description
File	Displays the Backstage view which contains commands related to managing files and customizing the program. The File tab replaces the Microsoft Office button and File menu used in earlier releases of Microsoft Office.
Home	Contains the most frequently used commands. The Home tab is active by default.
Create	Contains commands used to create new database objects (tables, queries, forms, reports, macros, and modules). Each group on this tab arranges its specific functions by database object type.
External Data	Contains commands used to import from or link to data in external sources or export data to external sources.
Database Tools	Provides access to miscellaneous tools and wizards.

Navigation Pane

The *Navigation* pane is a central location from which you can easily view and access all your database objects (see Figure 6). By default, it appears along the left side of the program window and displays all the objects in the database, grouped by object type and sorted by object name. When the list of objects is longer than can be displayed within the height of the Navigation pane, Access provides a scroll bar. You can collapse and expand the groups in the list by clicking the section bars. You can also change the display in the Navigation pane by clicking the pane's Title bar and selecting a different category or filter from the menu (Figure 7).

You can minimize the Navigation pane to maximize the amount of screen area available to work with open database objects. Clicking the *Shutter Bar Close* button « in the upper-right corner of the pane makes it appear as a thin bar on the left side of the program window. Clicking the *Shutter Bar Open* button » at the top of the minimized pane expands it. You can also drag the right edge of the Navigation pane to the left or right to make it wider or narrower.

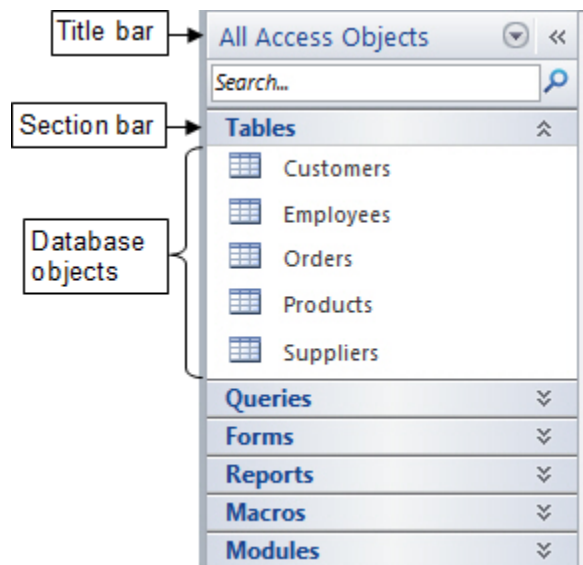


Figure 6 – Navigation Pane

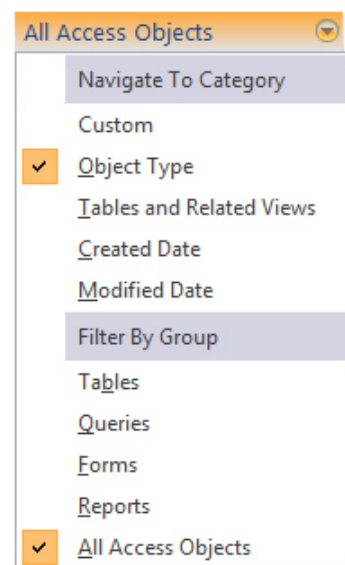


Figure 7 – Navigation Pane Menu

Backstage View

The *File* tab (the first tab on the Ribbon) is used to display the *Backstage* view which contains all the commands related to managing files and customizing the program. It provides an easy way to create, save, print, open, and close files; find recently used files; view and update file properties; set permissions; set program options; get help; and exit the program.

You can display the *Backstage* view at any time by clicking the *File* tab on the *Ribbon* (see Figure 8). You can exit the *Backstage* view by clicking any tab on the *Ribbon* or by pressing the *Esc* key.

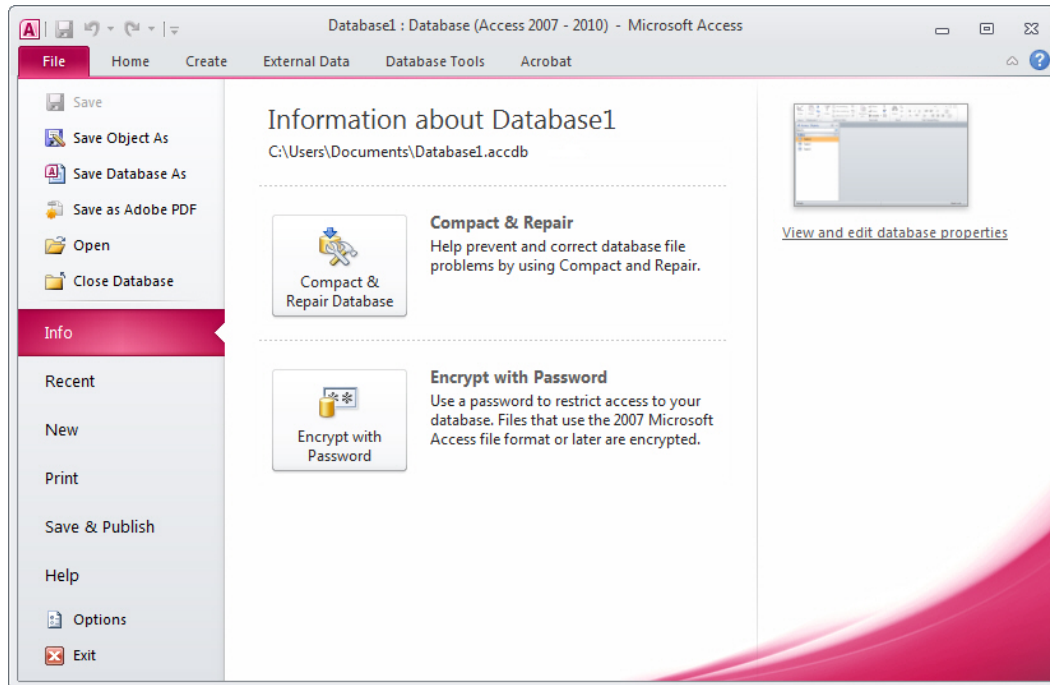


Figure 8 – Info Page of the Backstage View

Overview of Databases

A *database* is a collection of information that is related to a particular subject or purpose. Databases help you organize this related information in a logical fashion for easy access and retrieval. Electronic databases simplify tasks such as searching for specific data, organizing and sorting data, and making corrections or changes to data.

Access 2010 is a powerful relational database program. An Access database can store data in multiple related tables, thereby creating what are referred to as relational databases. If the data in a relational database is organized correctly, you can treat these multiple tables as a single storage area and pull information electronically from different tables in whatever order meets your needs.

Database Objects

An Access database can contain six types of objects: *tables*, *queries*, *forms*, *reports*, *macros*, and *modules* (see Table 3 for a description of each object type). Database objects are created to input, edit, retrieve, display, or print data. The names of all the database objects are displayed in the Navigation pane.

Table 3 – Database Objects

Object Type	Object Purpose
Table	Used to store data about a particular subject.
Query	Used to retrieve data that matches one or more conditions, to perform calculations, to combine data from different tables, or to add, change, or delete data.
Form	Used to view, enter, and edit data.
Report	Used to format, summarize, and present data.
Macro	Enables you to automate tasks and add functionality to your database without writing code. You build a macro by selecting each action from a list.
Module	Enables you to add automation and other functionality to your database by writing code in the Visual Basic for Applications (VBA) programming language.

Designing Databases

The most basic object in a database is a table in which you store your data. The following guidelines will help you create efficient tables.

- **One table per subject:** The first rule in creating database tables is to ensure that every table stores data about one subject.
- **Give every table a primary key:** Another important consideration in creating a table is to assign a primary key. This field contains a value that sets a record apart from all other records in the table.
- **Include foreign keys:** A final thing you can do to make your tables more efficient is to include foreign keys. When a primary key from one table is stored in another table, it is called a foreign key. You can use foreign keys to create relationships between tables.

Opening Databases

You can view or edit an existing database by opening it in Access. Once the database file is loaded into memory, you can open all the tables or other objects within that database.

NOTE: Each time you start Access, you open an instance of it. In a single instance of Access, you can have only one database open at a time. So to open two Access databases at the same time, start Access and open the first database, and then start Access again and open the second database. Each instance of Access runs in a separate window.

To open an existing database:

1. Click the **File** tab, and then click **Open**.
2. In the **Open** dialog box, locate and select the file that you want to open, and then click the **Open** button.

NOTE: When you open a database that contains potentially unsafe active content (such as action queries, macros, expressions, ActiveX controls, or VBA code), a **Security Warning** message is displayed on the **Message** bar, just below the **Ribbon**. If you know the content is from a reliable source, click the **Enable Content** button on the **Message** bar (see Figure 9).

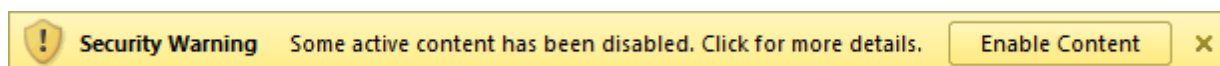


Figure 9 – Message Bar

NOTE: When you open a database, the file name and location of the database are added to the **Recent Databases** list which is displayed on the **Recent** page of the **Backstage** view (see Figure 10). This allows you to quickly access recently used files.

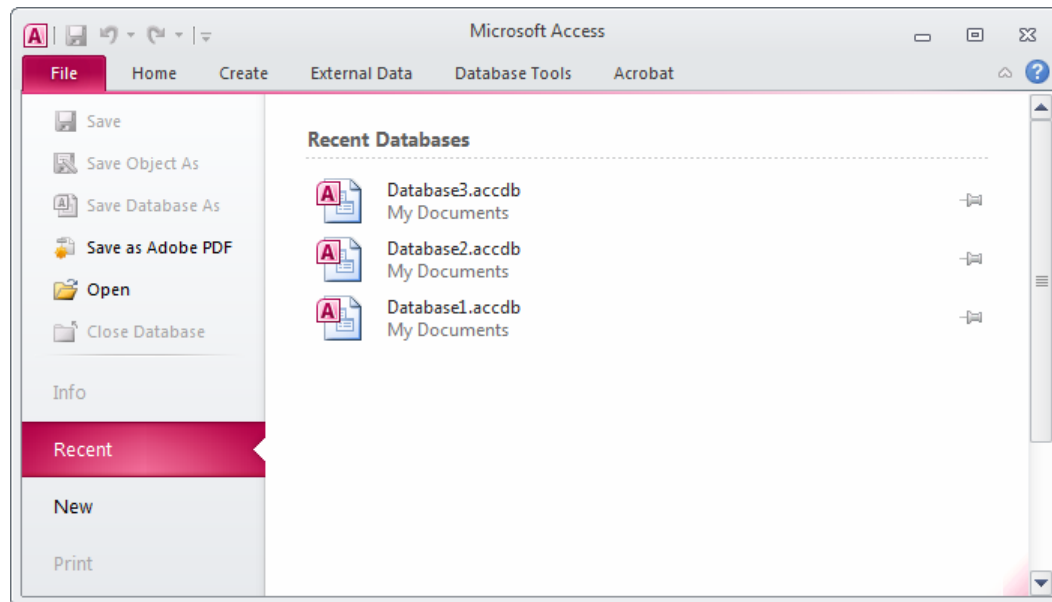


Figure 10 – Recent Page of the Backstage View

Opening Database Objects

You can open any object in a database by double-clicking it in the Navigation pane. Each open object appears on a tab in the Object window. The view in which the data appears depends on the type of object you open. Tables and queries appear in *Datasheet* view; forms appear in *Form* view; reports appear in *Report* view; and macros and modules run programs attached to the object.

To open a table:

1. In the **Navigation** pane, double-click the table that you want to open. The table opens in the **Object** window in **Datasheet** view (see Figure 11).

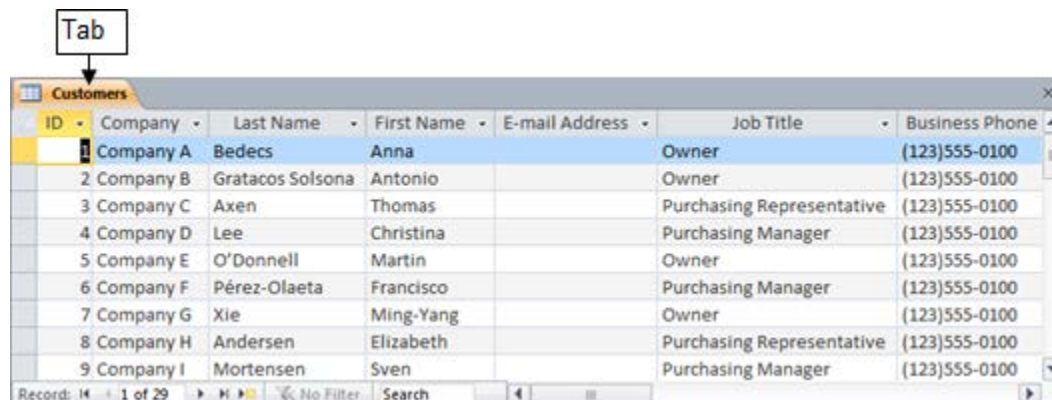


Figure 11 – Table in Datasheet View in the Object Window

NOTE: If you have multiple objects open in the **Object** window, you can easily switch between them by clicking the object tabs. The active object tab is orange and the tab title is displayed in bold text.

Using Datasheet View

In *Datasheet* view, displaying different records or fields is simple. You can use the horizontal scroll bar to scroll through a table's fields, or you can use the vertical scroll bar to scroll through a table's records (see Figure 12).

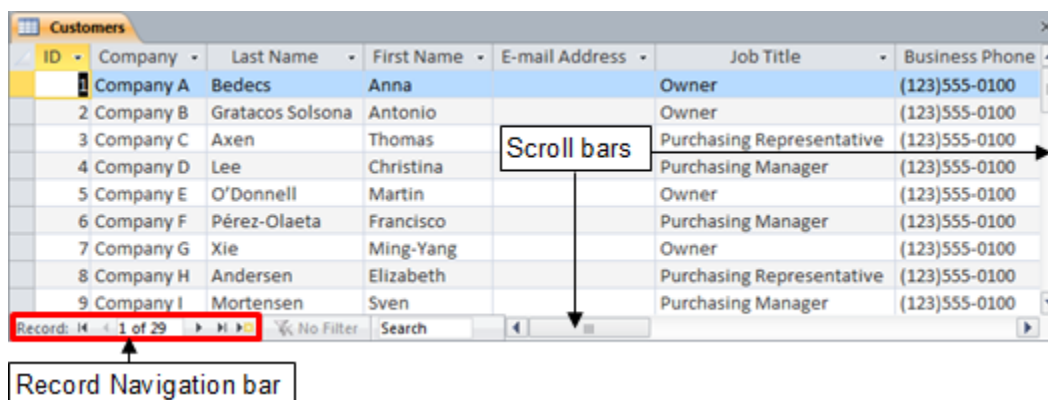


Figure 12 –Scroll Bars and Record Navigation Bar in Datasheet View

The *Record Navigation* bar located at the bottom of the Object window indicates how many records the table contains and which one is active, and enables you to navigate through the datasheet records (see Figure 12).

- Click the **First record** button (left arrow) to go to the first record in the datasheet.
- Click the **Previous record** button (left arrow) to go to the previous record in the datasheet.
- If you know the record number (the row number of a specific record), click in the **Current Record** box , type the record number, and then press the **Enter** key.
- Click the **Next record** button (right arrow) to go to the next record in the datasheet.
- Click the **Last record** button (right arrow) to go to the last record in the datasheet.
- Click the **New (blank) record** button (plus icon) to go to the new record row in the datasheet.

Switching Between Views

Every Access object has two or more views. For tables, the two most common views are *Datasheet* view (which allows you to view and modify the table's data), and *Design* view (which allows you to view and modify the table's structure).

To switch between views:

1. On the **Home** tab, in the **Views** group, click the **View** arrow and select the desired view from the menu (see Figure 13). Or, click the desired view button on the **View Shortcuts** toolbar located on the right side of the **Status** bar (see Figure 14).

NOTE: The available views vary depending on the open object.

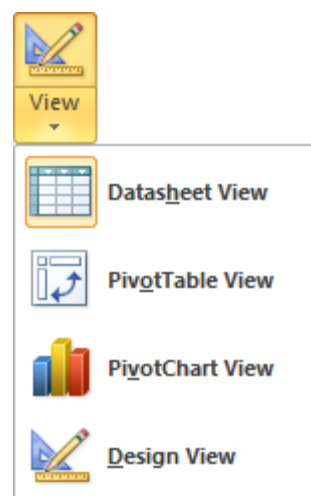


Figure 13 – View Menu



Figure 14 – View Shortcuts Toolbar

Closing Database Objects

When you finish working on a database object, you can close it, but keep the database open to work on other objects.

To close a table:

1. In the **Object** window, select the table that you want to close.
2. Click the **Close** button in the upper-right corner of the **Object** window (see Figure 15).

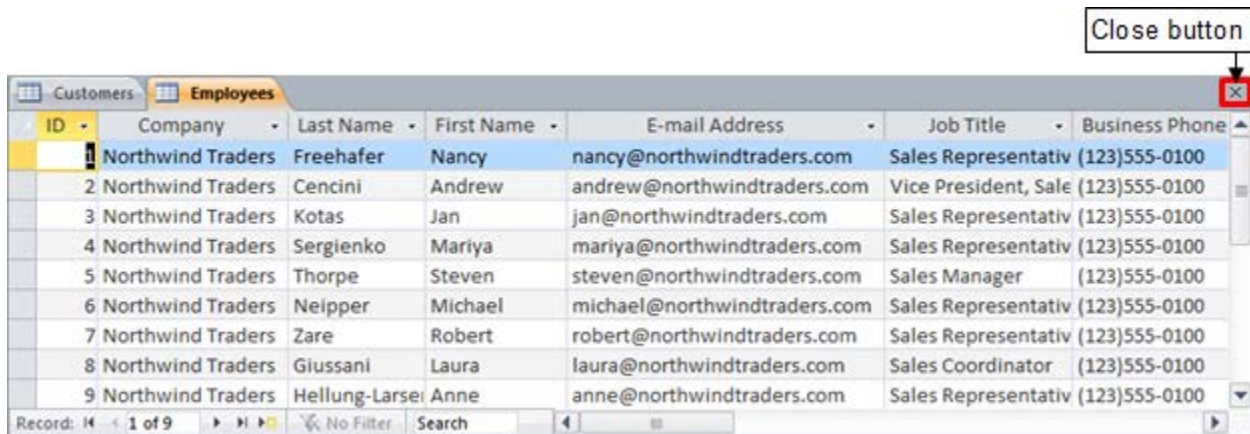


Figure 15 – Close Button in the Object Window

NOTE: You can close all open objects at once by right-clicking any tab, and then clicking **Close All** on the shortcut menu.

Renaming Database Objects

You can rename the objects in a database. Before renaming an object, make sure that it is closed.

To rename a table:

1. In the **Navigation** pane, right-click the table that you want to rename, and then click **Rename** on the shortcut menu. The table name is placed in edit mode (see Figure 16).
2. Type a new name, and then press the **Enter** key. The tables in the **Tables** list are re-sorted in alphabetical order.

NOTE: If you enter the name of a table that already exists in the database, a dialog box opens asking whether you want to replace the existing table. If you click the **Yes** button, Access deletes the old table before performing the renaming operation.

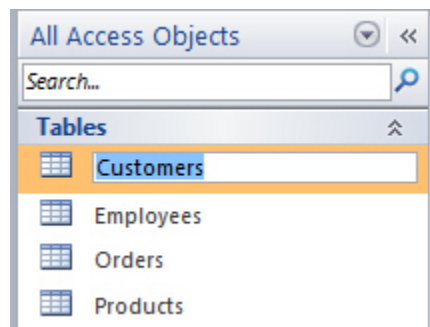


Figure 16 – Table Name in Edit Mode

Deleting Database Objects

You can delete an object from a database if it is no longer needed. Before deleting an object, make sure that it is closed.

To delete a table:

1. In the **Navigation** pane, right-click the table that you want to delete, and then click **Delete** on the shortcut menu.
2. A dialog box opens asking you to confirm. Click the **Yes** button (see Figure 17).

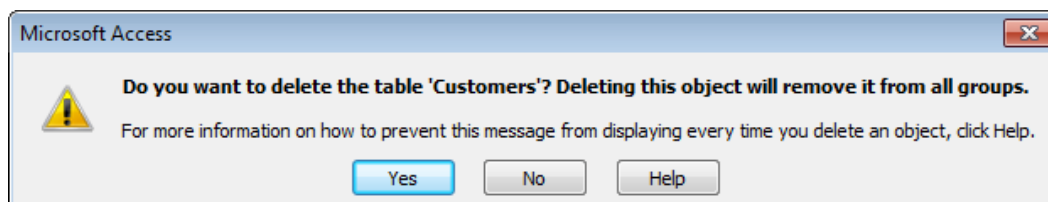


Figure 17 – Microsoft Access Dialog Box

Creating and Saving Databases


When you create a new database, you create a file that acts as a container for all of the objects in your database. Access 2010 comes with a variety of templates that you can use to speed up the database creation process. A template is a ready-to-use database that contains all the tables, queries, forms, and reports needed to perform a specific task. If none of the templates meets your needs, you can build a database from scratch by creating a blank database, and then adding your own tables and other database objects.

NOTE: By default, Access 2010 creates databases in the *.accdb* file format which was introduced in Access 2007. A database in this file format cannot be opened by using versions of Access earlier than Access 2007. If you need to share your database with people who use Access 2003 or earlier, you must use the *.mdb* file format.

To create a new database:

1. Click the **File** tab, and then click **New**. The **New** page of the **Backstage** view opens, displaying thumbnails of the available templates and template categories (see Figure 18).
2. Under **Available Templates**, click **Blank database**.
3. In the **File Name** box, type a name for the database.

NOTE: File names cannot contain the following characters: forward slash (/), backslash (\), greater than sign (>), less than sign (<), asterisk (*), question mark (?), quotation mark ("), pipe symbol (|), and colon (:).

4. Click the **Browse** button  next to the **File Name** box. In the **File New Database** dialog box, select the folder where you want to save the database, and then click the **OK** button. The path to the specified folder is displayed below the **File Name** box.

NOTE: You cannot create a blank database without saving it. If you do not provide a file name and location, Access saves the file with the name **Database** followed by a sequential number in the **Documents** folder.

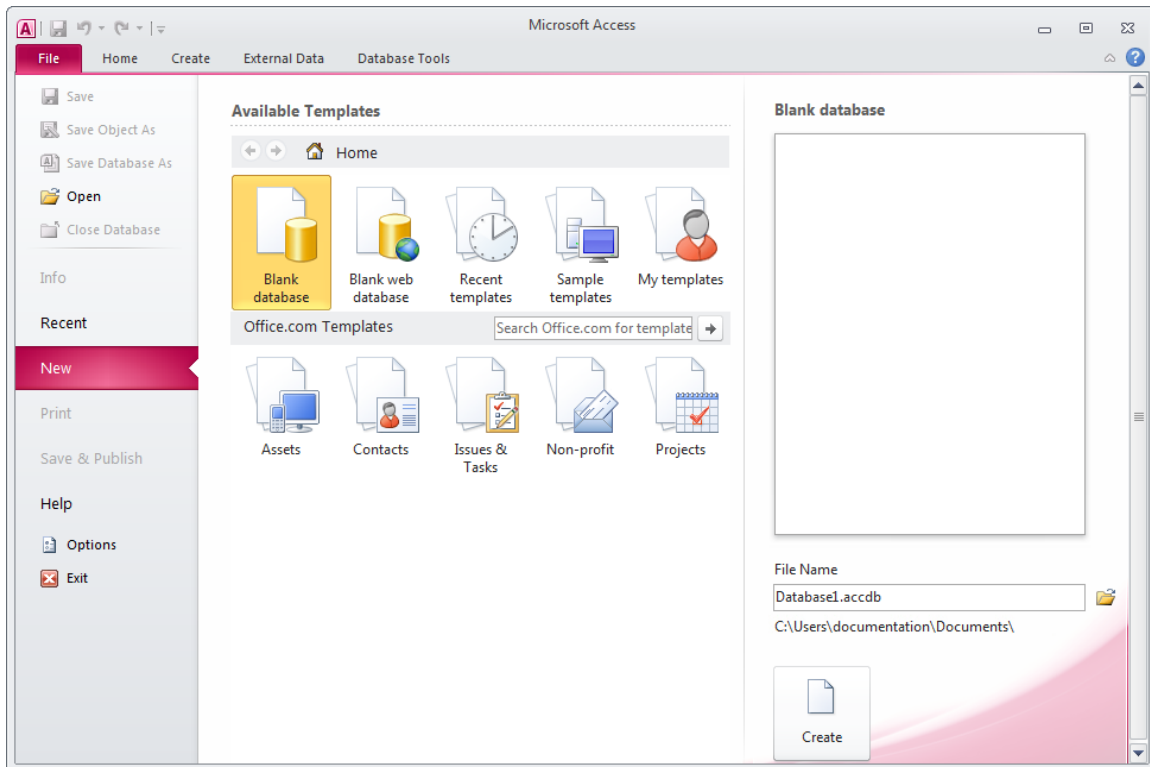


Figure 18 – New Page of the Backstage View

- Click the **Create** button. A blank database opens in the program window and a blank table named **Table1** opens in **Datasheet** view (see Figure 19).

NOTE: If you close **Table1** at this point, Access will not prompt you to save the table because it contains no data and it has no structure. The simplest way to make the table part of the database is to create at least one record by entering data, which simultaneously defines the table's structure.

- Click the **Close** button in the upper-right corner of the **Object** window.

NOTE: The following sections show you various methods of creating a new table.

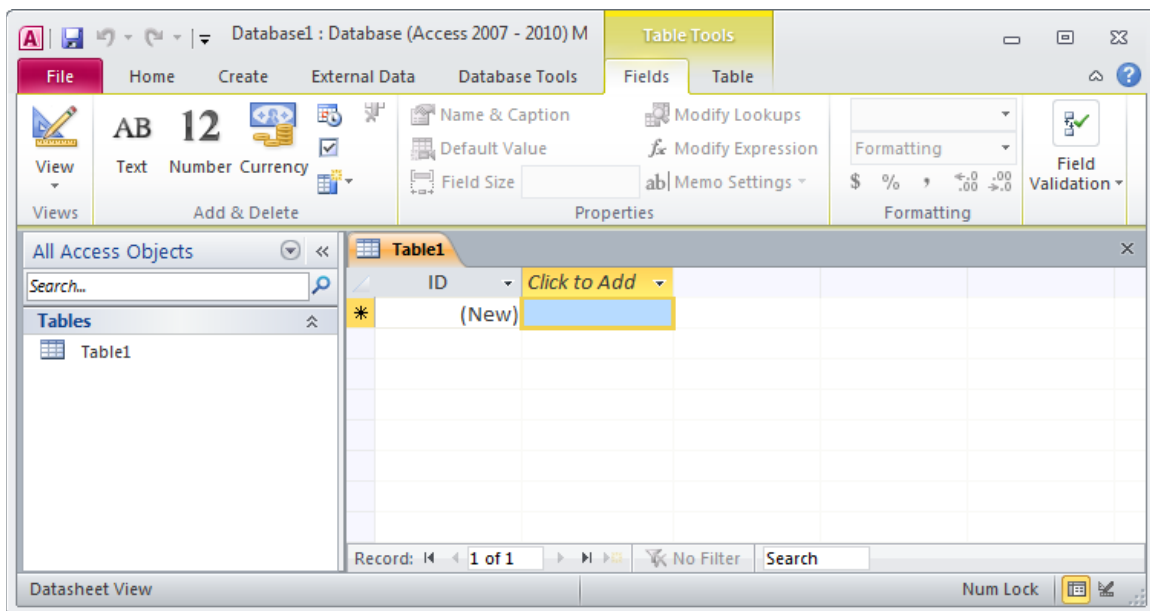


Figure 19 – New Table in a New Database

Working with Tables

A *table* is a database object that you define and use to store data. Each table contains information about a particular subject (such as customers). A table consists of *records* and *fields*. Each record contains data about one instance of the table subject (such as a particular customer). Each record consists of one or more fields. Each field contains data about one aspect of the table subject (such as a customer's first name or email address). Because other database objects depend so heavily on tables, you should always start your design of a database by creating all of its tables, and then creating any other objects.

In Datasheet view, a table is similar in appearance to an Excel worksheet in that data is stored in rows (records) and columns (fields). The first row contains column headers (field names). In this format, the table is often simply referred to as a *datasheet* (see Figure 20).

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phone
1	Company A	Bedecs	Anna		Owner	(123)555-0100
2	Company B	Gratacos Solsona	Antonio		Owner	(123)555-0100
3	Company C	Axen	Thomas		Purchasing Representative	(123)555-0100
4	Company D	Lee	Christina		Purchasing Manager	(123)555-0100
5	Company E	O'Donnell	Martin		Owner	(123)555-0100
6	Company F	Pérez-Olaeta	Francisco		Purchasing Manager	(123)555-0100
7	Company G	Xie	Ming-Yang		Owner	(123)555-0100
8	Company H	Andersen	Elizabeth		Purchasing Representative	(123)555-0100
9	Company I	Mortensen	Sven		Purchasing Manager	(123)555-0100

Figure 20 – Table

When the active object is a table, the *Table Tools* contextual tabs (*Fields* and *Table*) become available on the Ribbon so that you can work with the table (see Figure 21 and Figure 22).

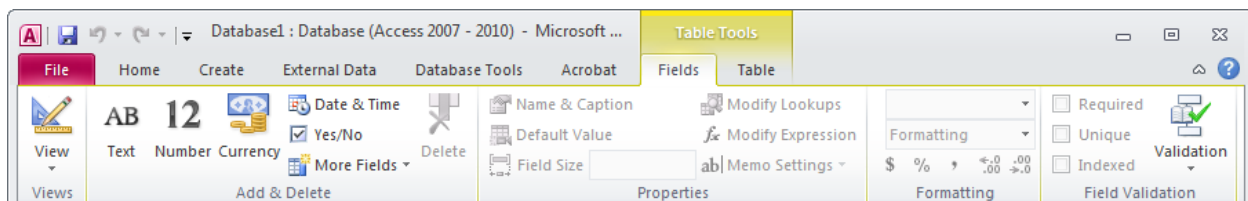


Figure 21 – Table Tools Fields Tab

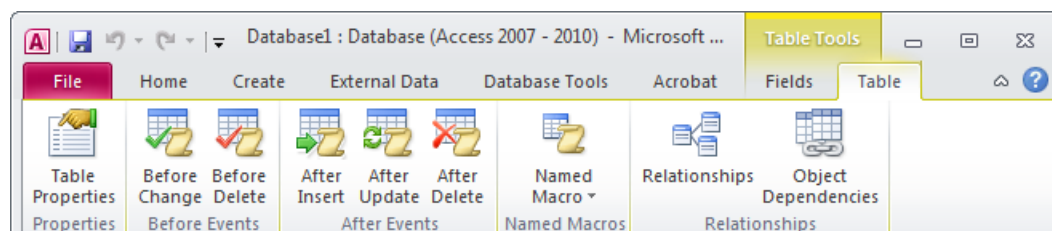


Figure 22 – Table Tools Table Tab

Creating Tables

When you create a new table, you have complete control over the number of fields, the names of the fields, and what sort of data they can store. You can create a new table in either Datasheet view or Design view by using the commands in the *Tables* group on the *Create* tab of the *Ribbon*

(see Figure 23). Regardless of which view you start in, you can always switch to the other view by using the *View* button on the *Ribbon* or by clicking the various view buttons on the *View Shortcuts* toolbar.

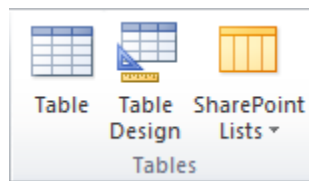



Figure 23 – Tables Group on the Create Tab

Creating Tables in Datasheet View

In Datasheet view, you can enter data into a new table without first defining the table's structure.

To create a table in Datasheet view:

1. On the **Create** tab, in the **Tables** group, click the **Table** button . A new, blank table opens in the **Object** window in **Datasheet** view (see Figure 24).

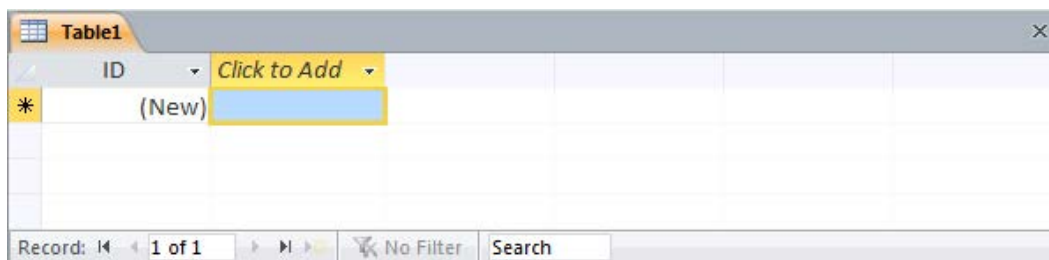


Figure 24 – New Table in Datasheet View

Adding Fields by Entering Data

Entering data in Datasheet view is designed to be very similar to entering data in an Excel worksheet. The main restriction is that data must be entered in contiguous rows and columns, starting in the upper-left corner of the datasheet. The table structure is created while you enter data. Any time you add a new column to the datasheet, a new field is defined in the table.

In each new table created in Datasheet view, Access automatically creates the first field, called *ID*, in the left column of the datasheet (see Figure 25). By default, this field is designated as the table's *primary key* and is designed to contain an entry that will uniquely identify the record; the data type of this field is set to *AutoNumber* which means that Access will automatically enter a sequential number in this field for each new record you add. You can add a new field to the table by entering data in the *Click to Add* column (the last column) of the datasheet; Access will automatically assign a data type based on the data that you enter.

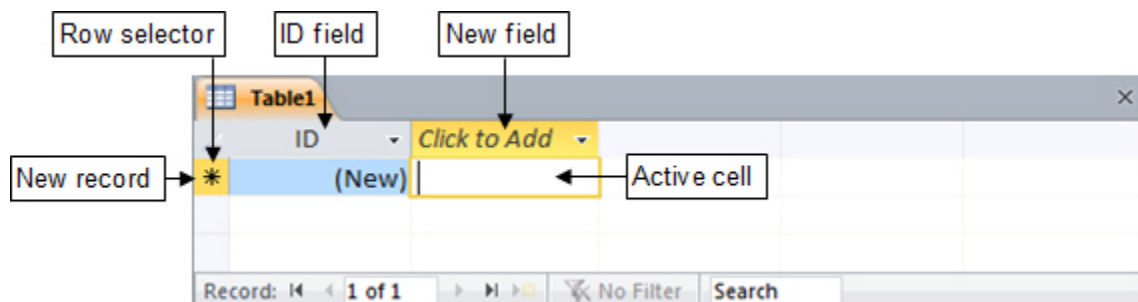


Figure 25 – First Record in a New Table Before Data is Entered

To add a field by entering data:

1. Click in the first cell in the **Click to Add** column, enter the first item of data for the new record, and then press the **Tab** or **Enter** key to move to the first cell in the column to the right. Access assigns the value **1** to the **ID** field, assigns the name **Field1** to the second field, and moves the **Click to Add** label to the third column. The icon on the row selector changes to a pencil to indicate that the record has been changed, but has not yet been saved, and the asterisk (*) icon moves to the row selector of the next row (see Figure 26).

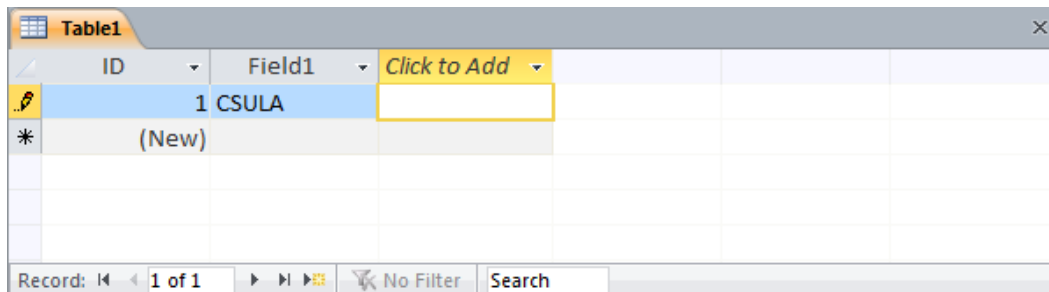


Figure 26 – First Record in a New Table After Entering Data

NOTE: When creating a new table in **Datasheet** view, you need to save the first record after entering the first item of data. If you do not, Access increments the **ID** value for each field you add to that record.

2. Click the pencil icon in the row selector. This saves the first record with the value **1** assigned to the **ID** field; subsequent records will be numbered sequentially.
3. Continue entering items of data in consecutive cells, and pressing the **Tab** or **Enter** key.
4. When you finish entering all the data for the first record, click anywhere in the row below to save the record.

After you complete the first record of a new table, you should change the default field names to something more meaningful. For instructions, see the Renaming Field section of this handout.

After you enter several rows of data, it is a good idea to save the table. For instructions, see the Saving Table section of this handout.

Renaming Fields

When you add a field by entering data in Datasheet view, Access automatically assigns a generic name to the field. Access assigns the name *Field1* to the first new field, *Field2* to the second new field, and so on (see Figure 27). By default, a field's name is used as its label wherever the field is displayed (such as a column header on a datasheet). Renaming fields so that they have more descriptive names helps make them easier to use when you view or edit records.



Figure 27 – Table with Generic Field Names

To rename a field in Datasheet view:

1. In the **Object** window, double-click the field name, type the new name, and then press the **Enter** key.

NOTE: Field names can be up to 64 characters long. They can include any combination of letters, numbers, spaces, and special characters, except a period (.), an exclamation point (!), a grave accent (`), and brackets ([]).

Creating Tables in Design View

When you create a table in Design view, you have more control over the database design. You first create the new table's structure in Design view, and then you switch to Datasheet view to enter data.

In Design view, the Object window consists of two panes (see Figure 28). The *Field Entry* pane, located at the top of the window, is used to enter each field's name, data type, and description. The *Field Properties* pane, located at the bottom of the window, is used to specify the field's properties. The properties available in the Field Properties pane depend on the data type assigned to the selected field. On the right side of the Field Properties pane is a box in which Access displays information about fields or properties.

To create a table in Design view:

1. On the **Create** tab, in the **Tables** group, click the **Table Design** button . A new, blank table opens in the **Object** window in **Design** view (see Figure 28).

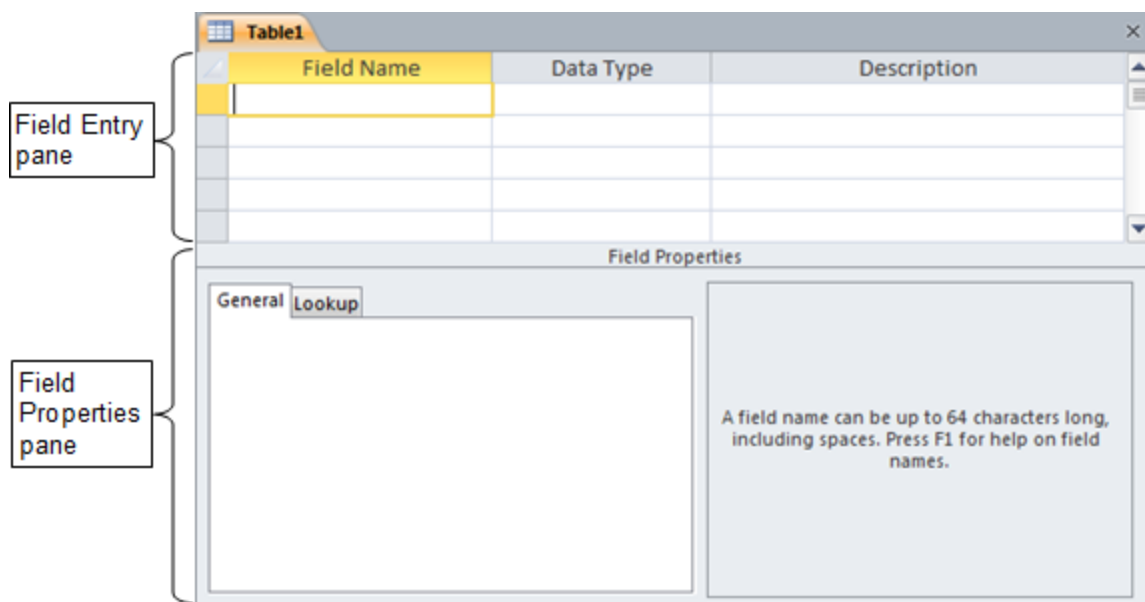


Figure 28 – New Table in Design View

Defining Fields

Every table is made up of fields. Each field has a set of properties that control the way it stores, handles, and displays data (e.g., field size, format, input mask, default value). A field's data type is the most important property because it determines what kind of data the field can store (see Table 4 for a description of each data type).

In Design view, you create a new field by entering the field's name, specifying the field's data type, and (optionally) specifying its other properties. The field's name uniquely identifies the field within a table. The field's description indicates the field's purpose and is optional. The field's data type determines which other properties you can set. Access automatically assigns default field properties which you can modify as needed.

NOTE: The order in which the field names appear in Design view determines the order in which the columns appear in Database view.

Table 4 – Access Data Types

Data Type	Usage
Text	Text is the default data type. Text fields accept either text or numeric data, including delimited lists of items (up to 255 characters).
Memo	You can enter large amounts of text and numeric data in this type of field (up to 65,538 characters). Also, if the field is set to support rich text formatting, you can apply the types of formatting that you normally find in word processing programs such as Word.
Number	You can enter only numbers in this type of field, and you can perform calculations on the values in a Number field.
Date/Time	You can enter only dates and times in this type of field.
Currency	You can enter only currency values in this type of field. You do not have to manually enter a currency symbol. By default, Access applies the currency symbol (\$, ¥, £, and so on) specified in your Windows regional settings.
AutoNumber	You cannot enter or change the data in this type of field. Access increments the values in an AutoNumber field whenever you add a new record to a table.
Yes/No	When a field is set to this data type, Access displays either a check box or a drop-down list, depending on how you format the field. If you format the field to show a list, you can select either <i>Yes</i> or <i>No</i> , <i>True</i> or <i>False</i> , or <i>On</i> or <i>Off</i> from the list, again depending on the format applied to the field. You cannot enter values in the list or change the values in the list directly from a form or table.
OLE Object	You use this type of field when you want to display data from a file created with another program.
Hyperlink	You can enter any data in this type of field and Access adds <i>http://</i> to your text. If you enter a valid web address, your link will work. Otherwise, your link will result in an error message.
Attachment	You can attach data from other programs to this type of field, but you cannot type or otherwise enter text or numeric data.
Calculated	This data type lets you create a field that is based on a calculation of other fields in the same table.
Lookup Wizard	The Lookup Wizard is not a data type. Instead, you use the wizard to create a lookup field. A lookup field displays either a list of values that is retrieved from a table or query, or a set of values that you specify when you create the field. A lookup field allows you to choose values from a list during data entry, thereby reducing repetitive typing and eliminating typing errors.

To define fields:

1. In the **Field Name** column, type a name for the first field.

NOTE: Field names can be up to 64 characters long. They can include any combination of letters, numbers, spaces, and special characters, except a period (.), an exclamation point (!), a grave accent (`), and brackets ([]).

2. In the **Data Type** column, click the down arrow and select a data type from the list (see Figure 29 and Table 4). The **Field Properties** pane displays the available properties for the selected data type (see Figure 30).

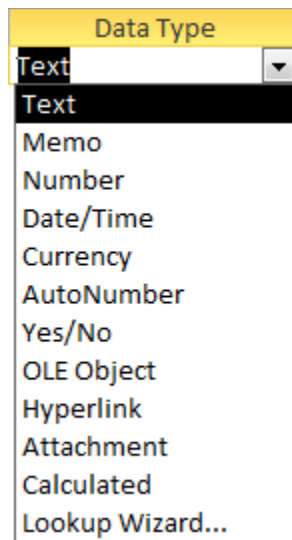


Figure 29 – Data Type List

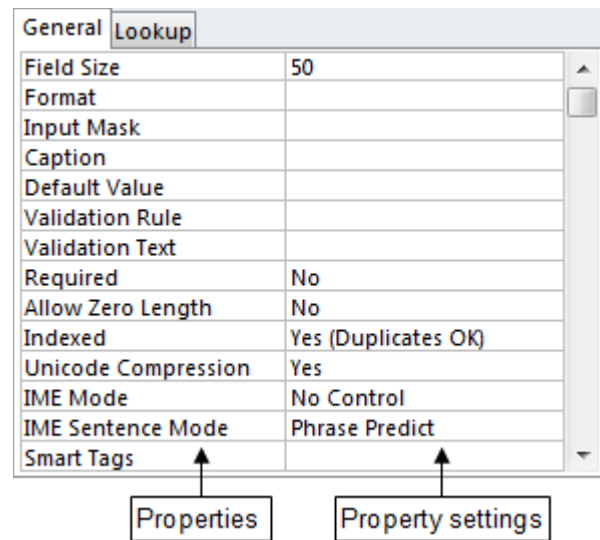


Figure 30 – Field Properties Pane

3. In the **Description** column, type a description for the field.
4. Repeat steps 1 through 3 to add additional fields to the table.

After you add all of your fields, you must save the table before you can add any data. For instructions, see the Saving Table section of this handout.

Setting a Primary Key

A *primary key* consists of one or more fields that uniquely identify each record in the table. There are several advantages to setting a primary key. First, the primary key is automatically indexed, which makes information retrieval faster. Second, when you open a table, the records are automatically sorted in order by the primary key. Finally, a primary key prevents the entry of duplicate data.

When you create a new table in Datasheet view, Access automatically creates a primary key for you and assigns it a field name of *ID* and the *AutoNumber* data type. In Design view, you can change or remove the primary key, or set the primary key for a table that does not already have one.

To set a primary key:

1. Click the row selector of the field you want to designate as the primary key.
NOTE: To select more than one field, hold down the **Ctrl** key and click the row selector of each field.
2. On the **Design** tab, in the **Tools** group, click the **Primary Key** button (see Figure 31). A key icon appears to the left of the field that you specify as the primary key (see Figure 32).

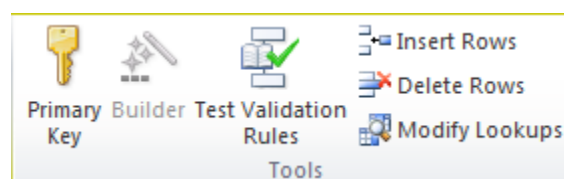
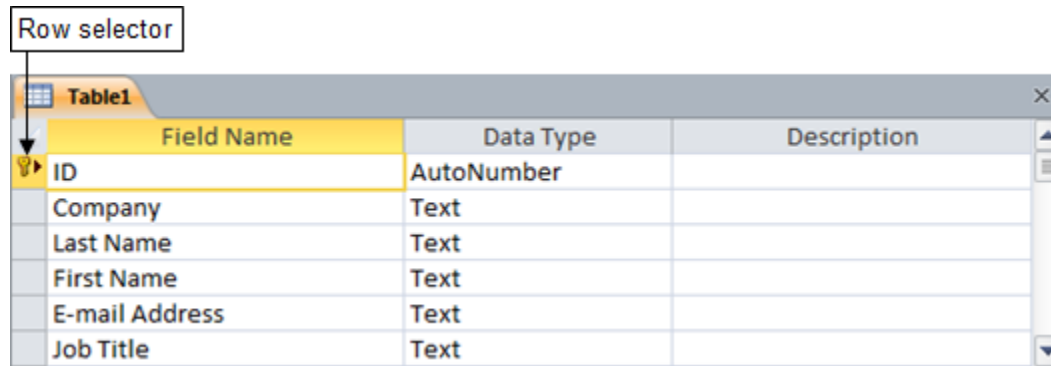


Figure 31 – Tools Group on the Design Tab



Field Name	Data Type	Description
ID	AutoNumber	
Company	Text	
Last Name	Text	
First Name	Text	
E-mail Address	Text	
Job Title	Text	


Figure 32 – Table After Setting a Primary Key

Saving Tables

After you create or modify a table, you should save it. When you save a table for the first time, you should give it a name that describes the data that it contains.

NOTE: When you save a table, you are not creating a file. You are adding an object to the existing database.

To save a table for the first time:

1. On the **Quick Access** toolbar, click the **Save** button . The **Save As** dialog box opens (see Figure 33).
2. In the **Table Name** box, type a name for the table.

NOTE: Table names can be up to 64 characters long. They can include any combination of letters, numbers, spaces, and special characters, except a period (.), an exclamation point (!), a grave accent (`), and brackets ([]).

3. Click the **OK** button. The table appears in the **Tables** list in the **Navigation** pane.

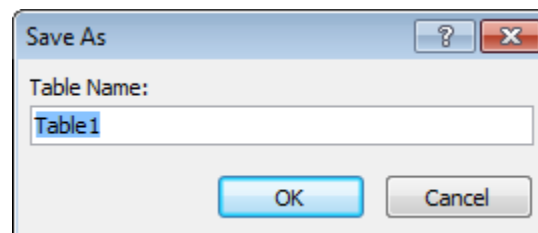


Figure 33 – Save As Dialog Box

Editing Tables


After creating a table, you can modify the table's structure by adding, deleting, or reordering fields. You can also modify the table's data by adding new records, editing existing records, or deleting obsolete records.

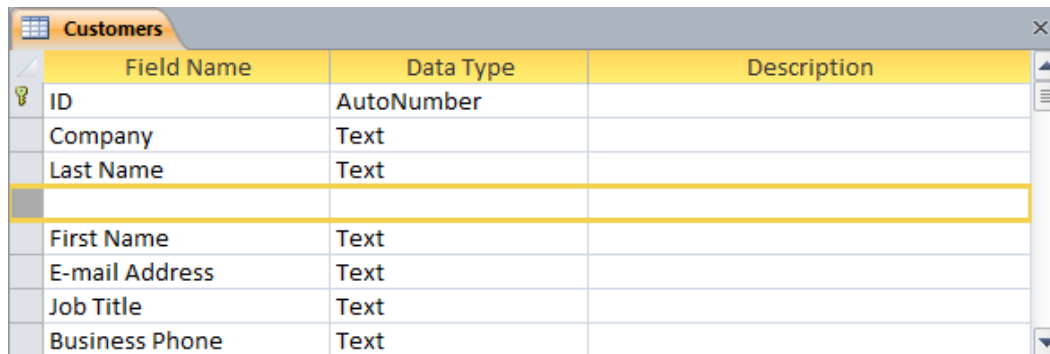
Adding Fields

To store a new piece of data about something for which you already have a table, you can add a field to the table.

To add a field:

1. In the **Navigation** pane, right-click the table that you want to edit, and then click **Design View** on the shortcut menu. The table opens in **Design** view.

2. Click the row selector of the field above which you want to insert the new field.
3. On the **Design** tab, in the **Tools** group, click the **Insert Rows** button . Access inserts a blank row that you can use to define the new field (see Figure 34).
4. In the **Field Name** column, type a name for the new field.
5. In the **Data Type** column, click the down arrow and select a data type for the new field.




Field Name	Data Type	Description
ID	AutoNumber	
Company	Text	
Last Name	Text	
First Name	Text	
E-mail Address	Text	
Job Title	Text	
Business Phone	Text	

Figure 34 – Table After Inserting a Row

Deleting Fields

You can remove unwanted fields from a table. Deleting a field gets rid of all the data in that field.

To delete a field:

1. In the **Navigation** pane, right-click the table that you want to edit, and then click **Design View** on the shortcut menu. The table opens in **Design** view.
2. Click the row selector of the field that you want to delete.
3. On the **Design** tab, in the **Tools** group, click the **Delete Rows** button .
4. If the field contains data, a dialog box opens asking you to confirm. Click the **Yes** button (see Figure 35).

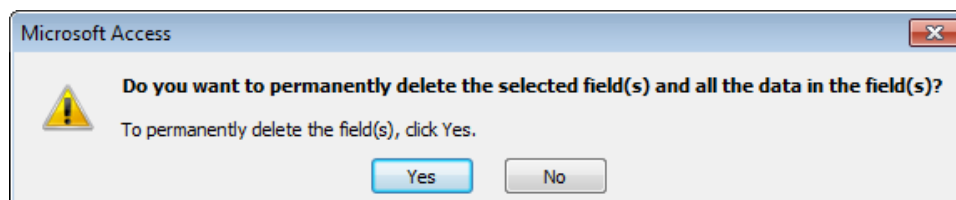


Figure 35 – Microsoft Access Dialog Box

Reordering Fields

While the order of the fields does not affect how the table functions within the database, it is a good practice to group fields together in some reasonable order so that they are easy to find, and to place the primary key field at the top of the list.

To move a field:

1. In the **Navigation** pane, right-click the table that you want to edit, and then click **Design View** on the shortcut menu. The table opens in **Design** view.
2. Click the row selector of the field that you want to move, and then drag the row selector to the desired location. A line appears to show where the field will be placed when you release the mouse button (see Figure 36).

Field Name	Data Type	Description
ID	AutoNumber	
Company	Text	
Last Name	Text	
First Name	Text	
E-mail Address	Text	
Job Title	Text	
Business Phone	Text	
Home Phone	Text	

Figure 36 – Table While Moving a Field


Adding Records


Every table has a blank row that follows the last record in the table. This blank row, the new record row, displays an asterisk (*) on the row selector at the left end of the row (see Figure 37). As soon as you begin entering data into the new record row, the asterisk on the row selector changes to a pencil to indicate that the record is being entered or edited, and Access creates another new record row below it. If there is no data in the table, only the new record row appears.

ID	Company	Last Name	First Name	E-mail Address	Job Title	Business Phone
1	Northwind Traders	Freehafer	Nancy	nancy@northwindtraders.com	Sales Representative	(123)555-0100
2	Northwind Traders	Cencini	Andrew	andrew@northwindtraders.com	Vice President, Sales	(123)555-0100
3	Northwind Traders	Kotas	Jan	jan@northwindtraders.com	Sales Representative	(123)555-0100
4	Northwind Traders	Sergienko	Mariya	mariya@northwindtraders.com	Sales Representative	(123)555-0100
5	Northwind Traders	Thorpe	Steven	steven@northwindtraders.com	Sales Manager	(123)555-0100
6	Northwind Traders	Neipper	Michael	michael@northwindtraders.com	Sales Representative	(123)555-0100
7	Northwind Traders	Zare	Robert	robert@northwindtraders.com	Sales Representative	(123)555-0100
8	Northwind Traders	Giussani	Laura	laura@northwindtraders.com	Sales Coordinator	(123)555-0100
9	Northwind Traders	Hellung-Larsen	Anne	anne@northwindtraders.com	Sales Representative	(123)555-0100
*	(New)					

Figure 37 – Table in Datasheet View


To add a record:

1. In the **Navigation** pane, double-click the table that you want to edit. The table opens in **Datasheet** view.
2. On the **Home** tab, in the **Records** group, click the **New** button . The insertion point is placed in the first column in the new record row.
3. Enter the desired data, and then press the **Tab** or **Enter** key to move the insertion point to the next column in the same row.

NOTE: If the data you enter in a column violates a field validation rule, Access notifies you as soon as you attempt to leave the column. You must provide a correct value before you can move to another column. Press the **Esc** key or click the **Undo** button  on the **Quick Access** toolbar to undo the change to the current value.

4. Enter the desired data in the remaining columns, pressing the **Tab** or **Enter** key after each entry.

NOTE: If you make a mistake, you can click the data you want to change and type over it or delete it.

5. To save the new record, press **Shift+Enter** at any place in the record, or press the **Tab** or **Enter** key in the last column in the record. Or, on the **Home** tab, in the **Records** group, click the **Save** button .


NOTE: Access automatically saves a new record or changes made to an existing record as soon as you move to another row. Also, Access saves records automatically when you close a table.

Deleting Records

When you no longer need a record, you can delete it from the table. Deleting records saves disk space and keeps your tables smaller and more manageable.

NOTE: Deleted records cannot be recovered.

To delete a record:

1. In the **Navigation** pane, double-click the table that you want to edit. The table opens in **Datasheet** view.
2. Click the row selector of the record that you want to delete.
3. On the **Home** tab, in the **Records** group, click the **Delete** button .
4. The selected record is removed from the table, and a dialog box opens asking you to confirm. Click the **Yes** button (see Figure 38).

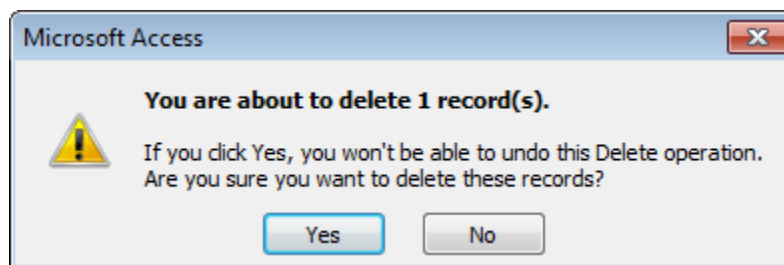


Figure 38 – Microsoft Access Dialog Box

Closing Databases

When you finish working on a database, you should close the file. If the database contains any unsaved objects, you will be prompted to save the objects before closing the file.


To close a database:


1. Click the **File** tab, and then click **Close Database**.


Getting Help

You can use the Access Help system to get assistance on any Access topic or task. This system is a combination of tools and files that were stored on your computer when Access 2010 was installed. If your computer is connected to the Internet, you can also access resources from Office.com.

To get help:

1. Click the **Microsoft Access Help** button  on the right side of the **Ribbon**. Or, press the **F1** key. The **Access Help** window opens, displaying a list of general help topics (see Figure 39).

NOTE: You can also click the **Help** button  in the upper-right corner of an open dialog box to display topics related to the functions of that dialog box in the **Access Help** window.

2. Click any topic to display the corresponding information.
3. To find help on a specific topic, type a word or phrase related to the topic in the **Search** box, and then press the **Enter** key. The search results display in the window.
4. To switch between online and offline help, click the button in the lower-right corner of the window to display the **Connection Status** menu, and then click **Show content from Office.com** or **Show content only from this computer** (see Figure 40).
5. To close the **Access Help** window, click the **Close** button  in the upper-right corner of the window.

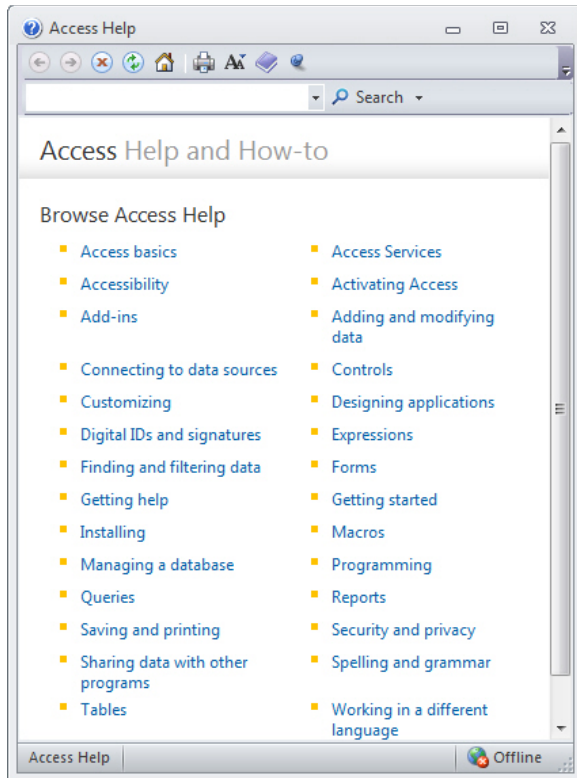


Figure 39 – Access Help Window

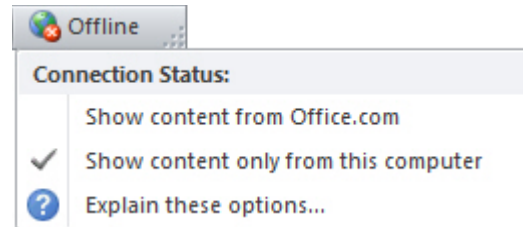



Figure 40 – Connection Status Menu

Exiting Access

When you finish using Access 2010, you should exit the program to free up system resources.

To exit Access 2010:

1. Click the **File** tab, and then click **Exit**. Or, click the **Close** button  in the upper-right corner of the program window.