

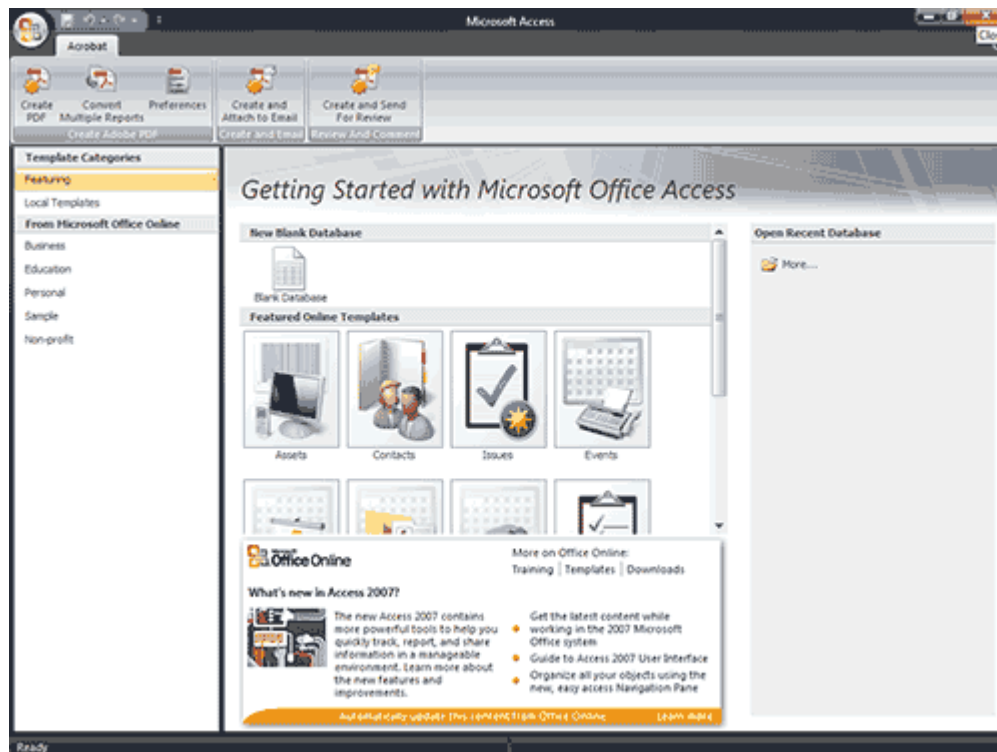
Microsoft Access 2007 Tutorial

Lesson 1: Getting Familiar with Microsoft Access 2007 for Windows

Microsoft Access is a database software package. A database is an organized collection of records. Telephone and address books are examples of paper databases. With Access, you can create a computerized database. For example, you can use Access to organize the students who attend a school, the courses they take, and the instructors who teach them.

Getting Started

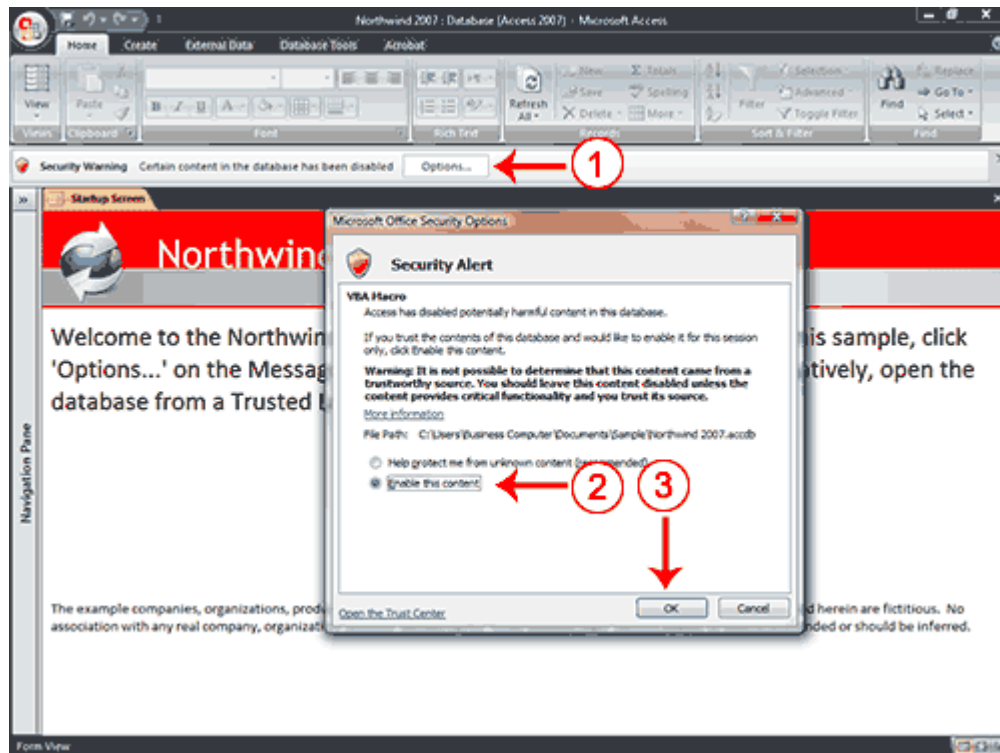
You use windows to interact with Access. To begin, start Access 2007. Your screen will look similar to the one shown here.



Understanding Security

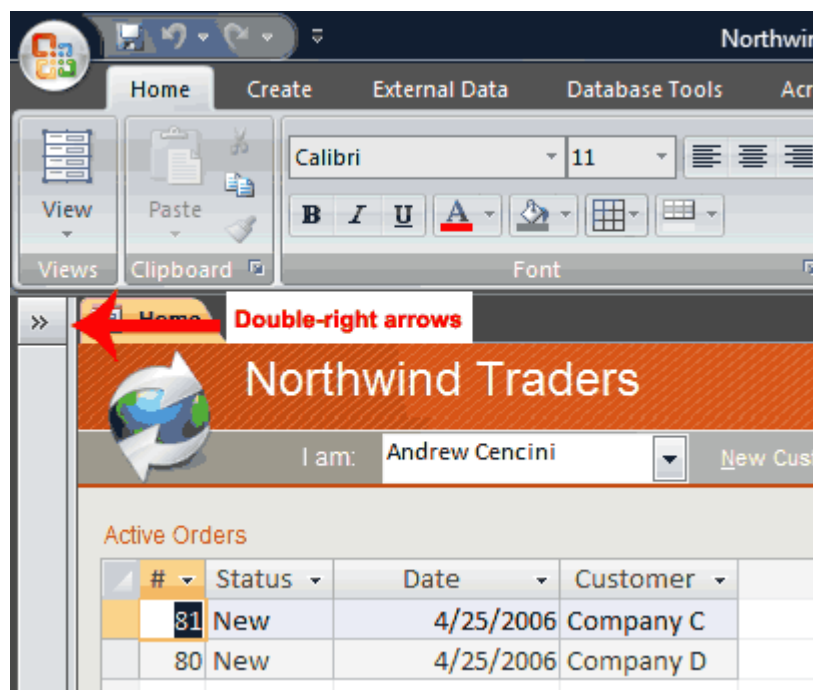
It is possible for an Access database to contain malicious code, such as a computer virus. Access has security settings that disable code and display a security warning when you open a database. If you know a database is trustworthy, you can perform the following steps to enable it. You may need to enable the Northwind database.

To enable a database:



The Navigation Pane

To manipulate the Navigation pane:

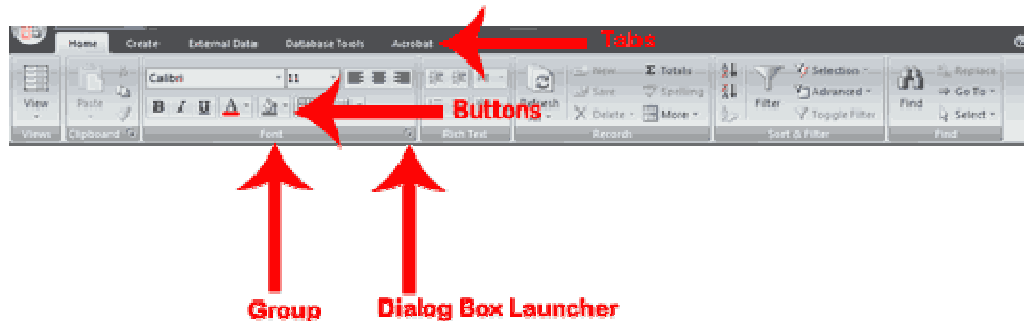


The Title Bar

Northwind 2007 : Database (Access 2007) - Microsoft Access

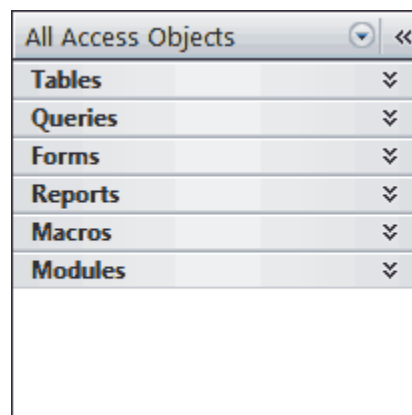
The Title bar is located at the top in the center of the Access window. The Title bar displays the name of the database on which you are currently working.











The Ribbon



Access Objects

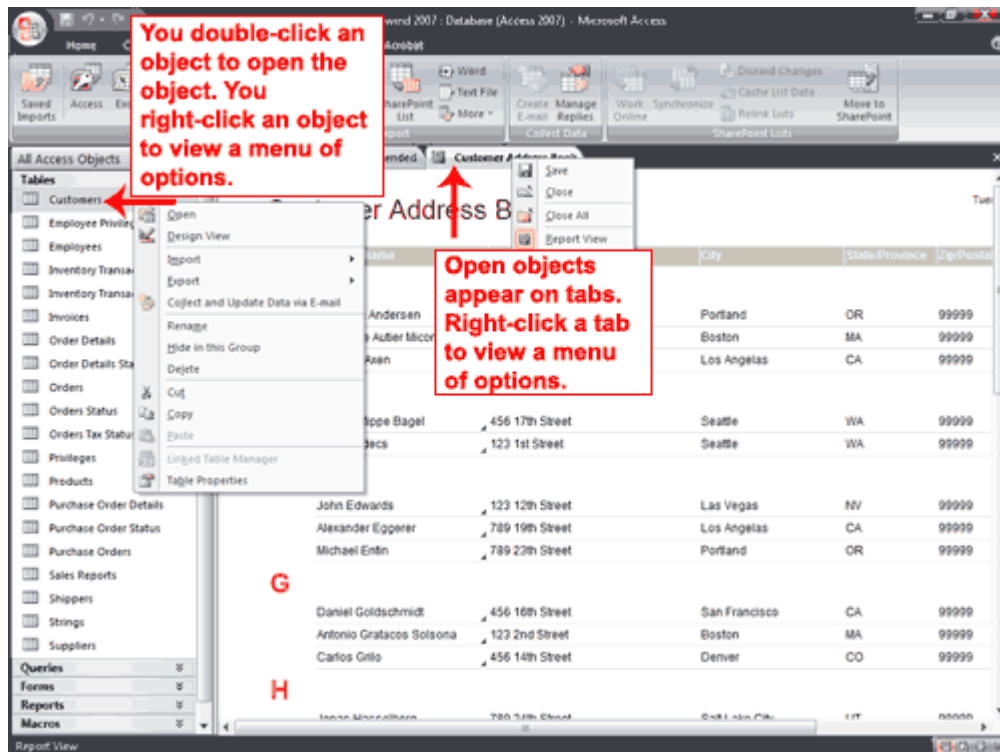
To view or hide the objects on the Navigation pane:



- You click the double down-arrows  to view objects. The double down-arrows change to double up-arrows .
- You click the double up-arrows  to hide objects. The double up-arrows change to double down-arrows .
- icon tells you the object type:  table,  query,  form,  report,  macro, and  module.

Objects

Tables	In Access, data is stored in tables. A table is a set of columns and rows, with each column referred to as a field. Each value in a field represents a single type of data. Each row of a table is referred to as a record.
Queries	You use queries to retrieve specific data from your database and to answer questions about your data. For example, you can use a query to find the names of the employees in your database who live in a particular state.
Forms	Forms give you the ability to choose the format and arrangement of fields. You can use a form to enter, edit, and display data.
Reports	Reports organize or summarize your data so you can print it or view it onscreen. You often use reports when you want to analyze your data or present your data to others.
Macros	Macros give you the ability to automate tasks. You can use a macro to add functionality to a form, report, or control.
Modules	Like macros, modules give you the ability to automate tasks and add functionality to a form, report, or control. Macros are created by choosing from a list of macro actions, whereas modules are written in Visual Basic for Applications.



- You double-click an object to open the object. You right-click an object to view a menu of options. You can use the menu to do such things as open objects, rename objects, and delete objects.

- Objects that are open appear on tabs. Right-click a tab to view a menu of options you can perform, such as save the object, close the object, or change the view.

- **Change Views**



- A view is a way of looking at an object. For example, in Access, data is stored in tables. Two of the possible ways you can view a table are Datasheet view and Design view. You can see the data contained in a table in Datasheet view. You can see the design of a table in Design view. When you open an object, buttons appear in the lower-right corner of the Access window. You can use the View button on the Home tab to change views, or you can click the proper button in the lower-right corner of the window.

Lesson 2: Creating Microsoft Access Tables

Tables are the foundation of an Access database. Access stores data in tables. This lesson teaches you how to create a table, add fields to a table, assign data types to fields, and set field properties.

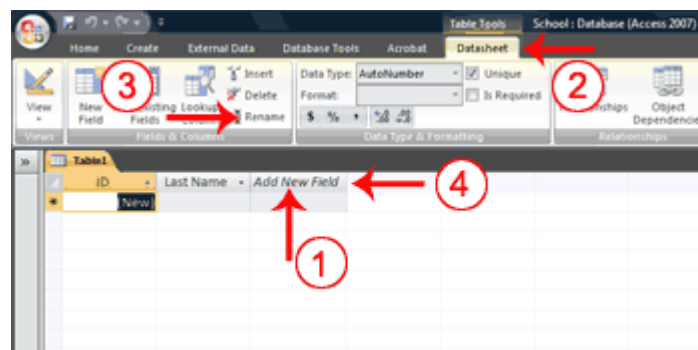
Understanding Tables

A table is a set of columns and rows. Each column is called a field. Within a table, each field must be given a name and no two fields can have the same name. Each value in a field represents a single category of data. For example, a table might have three fields: Last Name, First Name, and Phone Number. The table consists of three columns: one for last name, one for first name, and one for phone number. In every row of the table, the Last Name field contains the last name, the First Name field contains the first name, and the Phone Number field contains the phone number. Each row in a table is called a record.

Employees		
Last Name	First Name	Phone Number
Smith	John	(555) 123-4567
Jones	Mary	(555) 123-1234
Adams	Steve	(555) 123-5678
*		

All of the data in a table should refer to the same subject. For example, all of the data in the Employees table should refer to employees, all of the data in the Students table should refer to students, and all of the data in the Courses table should refer to courses.

To add fields to a table:

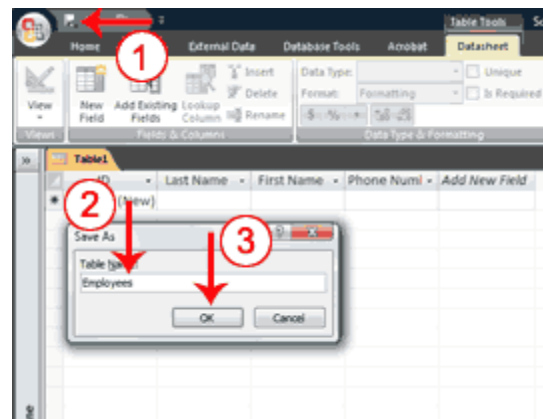


1. Click the Add New Field column label.
2. Activate the Datasheet tab.
3. Click Rename in the Fields & Columns group.
4. Type the field name.
5. Press Enter. Access creates the field.
6. Type the next field name. Access creates the field. Continue until you have created all of the fields in your table.
7. Press Enter without entering a field name to end your entries.

Name and Save a Table

After you create a table, you must name and save it.

To name and save a table:



1. Click the Save button on the Quick Access toolbar. The Save As dialog box appears.
2. Type the name you want to give your table.
3. Click OK. Access names your table.



Tip: You can use the Rename option at any time to rename any column. For example, you can rename the ID column Employee ID.

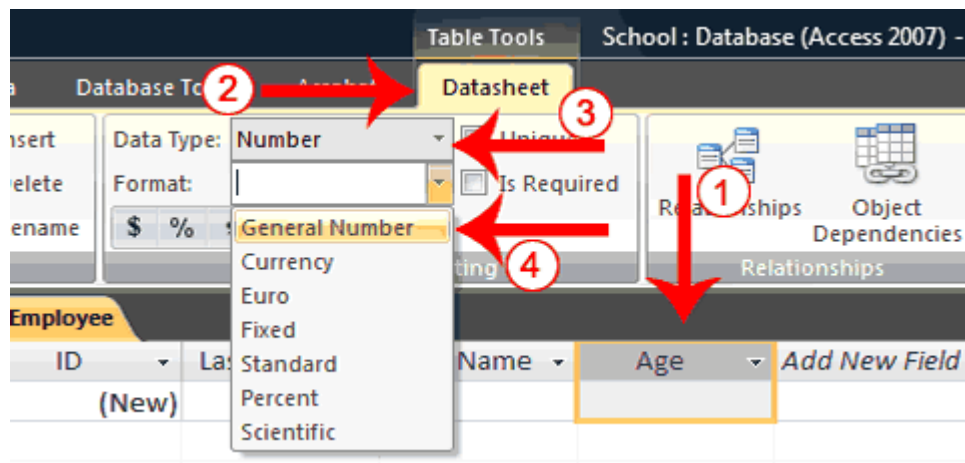
Understanding Data Types

In Access, you use data types to specify the type of data each field can capture.

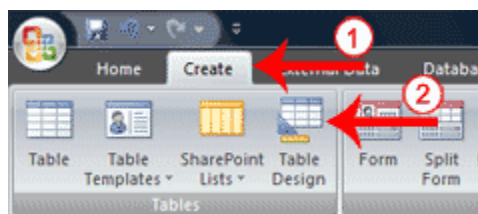
Data Types		
Data Type	Use	Notes
Text	Alphanumeric data. Use for text and for numbers that are not used in mathematical calculations. Use for names, addresses, and other relatively short pieces of text. Can store up to 255 characters.	.
Memo	Long text. Use for long pieces of text, such as notes and long descriptions. Can store up to 64,000 characters.	
Number	Numeric data. Use for numbers you want to use in mathematical calculations.	If you are working with currency, use the currency type.
Date/ Time	Use for dates and times.	
Currency	Use for currency.	Prevents rounding during calculation.
AutoNumber	Unique sequential numbers or random numbers automatically inserted when you create a record. Use to create a primary key.	
Yes/ No	Logical data. Use when only one of two values is valid. Yes/ No, True/ False, etc.	

Hyperlink	Use to store hyperlinks.	
Attachment	Use to store attachments.	
OLE Object	Use to attach an OLE object such as a Word document, Excel spreadsheet , or PowerPoint presentation.	

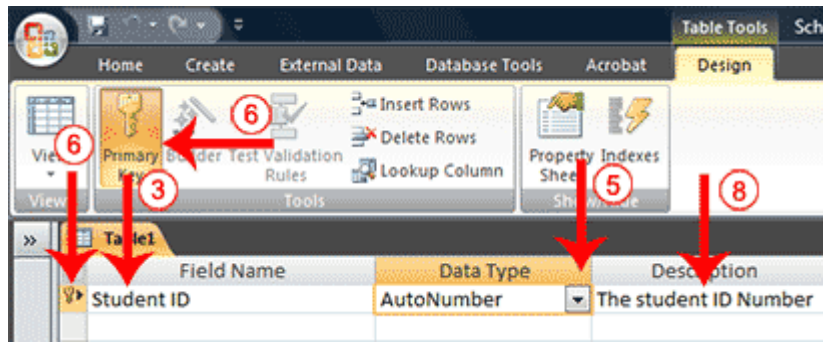
To assign a data type or format to a field:



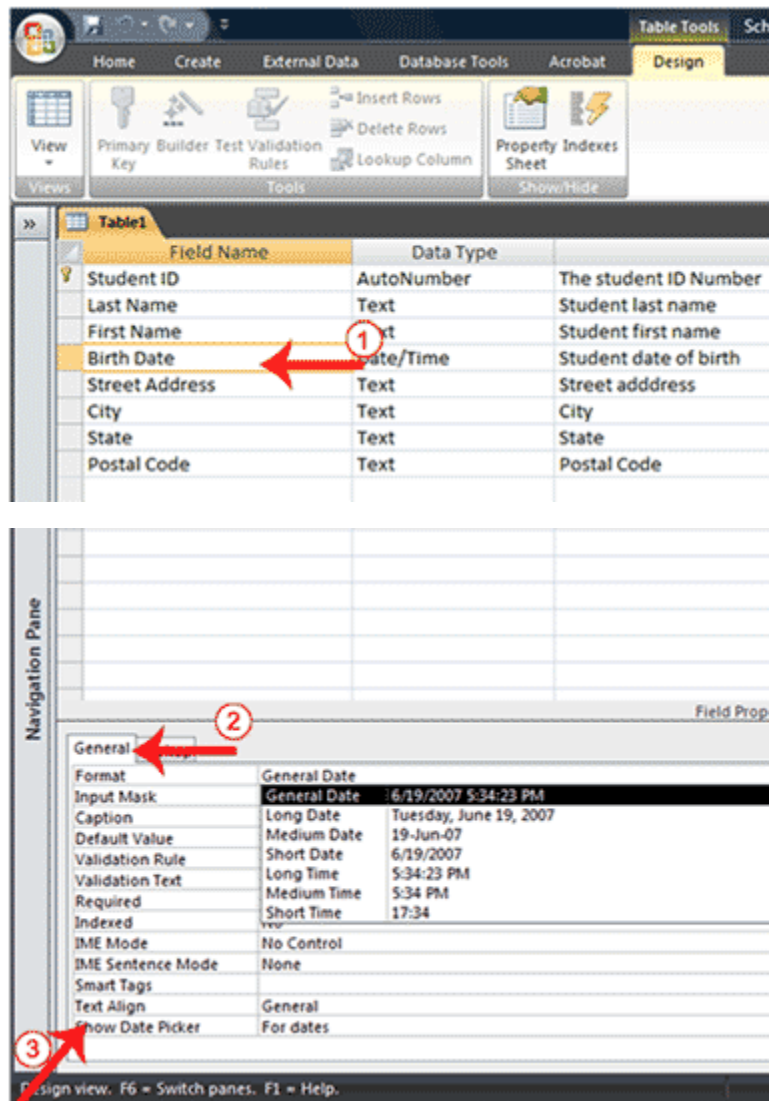
To use Design view to create a new table:



1. Activate the Create tab.
2. Click Table Design in the Tables group. Access changes to Design view and the Table Tools become available.



To set field properties:



1. Click the field for which you want to set the field properties.
2. Activate the General tab in the Field Properties area.
3. Set the properties you want to set.
4. Repeat steps 1 through 3 until you have set all the properties for all fields.

Create a Lookup Column

If a field can contain a finite list of values, you can create a Lookup Column and users can select the value they want from a list. For example, if the employees at a school can only work in one of the following departments: Administration, Computer Science, English, History, or Math. You can create a table Departments table that lists the departments and then use the list in the Employee table to assign each employee to a department.

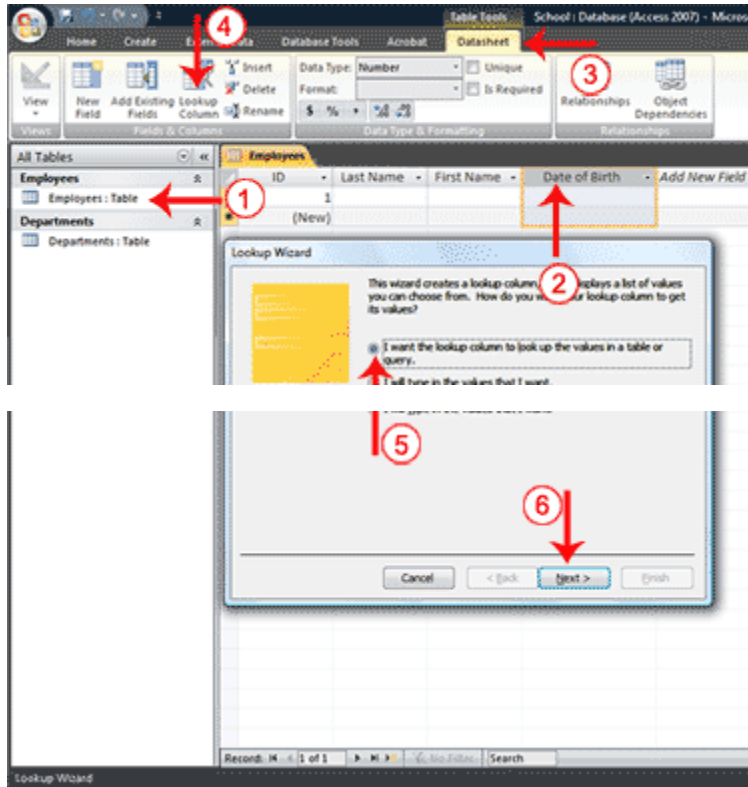
Departments	
Department ID	Department
Primary Key	
1	Administration
2	Computer Science
3	English
4	History
5	Math

Access has a wizard to help you create lookup columns. Creating a Lookup column creates a relationship between two tables. See the section Create Relationships in Lesson 3 to learn more about relationships.

To use the Lookup Wizard to create a lookup column:

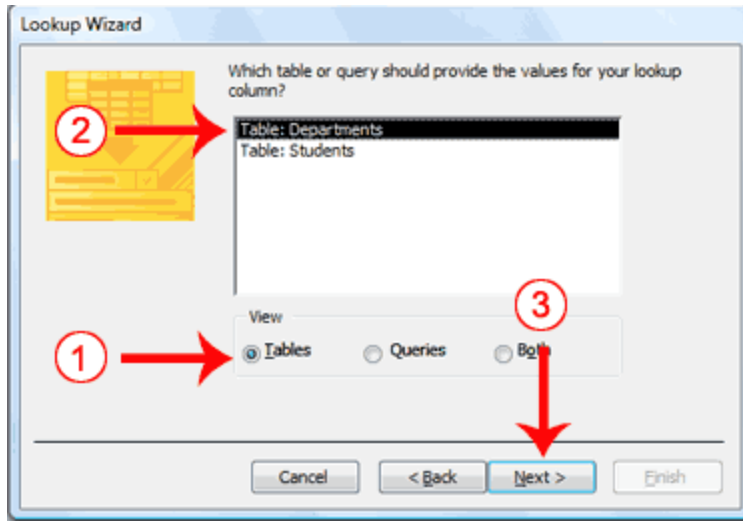
1. Open the table to which you want to add a lookup column.
2. Click the field label for the field before which you want to add a lookup column.
3. Activate the Datasheet tab. (You must be in Datasheet view.)
4. Click the Lookup Column button in the Fields & Columns group. The Lookup Wizard appears.
5. Make sure the radio button next to “I want the lookup column to look up the values in a table or query.” is selected.
6. Click Next. The Lookup Wizard moves to the next page.

Open the Lookup Wizard



Select your table or query

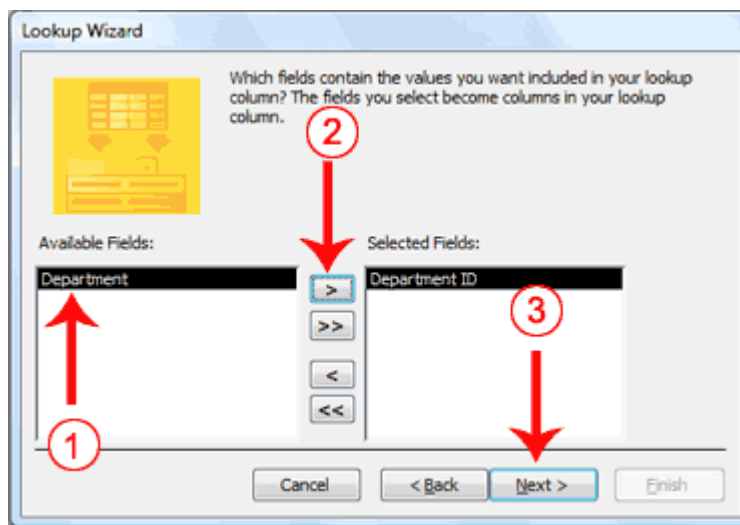
A lookup column can be based on a table, a query, or a list of values you type. If you base your lookup column on a table or query, you must create the table or query before creating the lookup column. A query is a list of rows and columns based on one or more tables. A query only displays the rows and columns you specify.



1. Click a radio button to select what you want to base your lookup column on. Choose from Tables, Queries, or Both.
2. Click to select the table or query you want.
3. Click Next. The Lookup Wizard moves to the next page.

Select fields

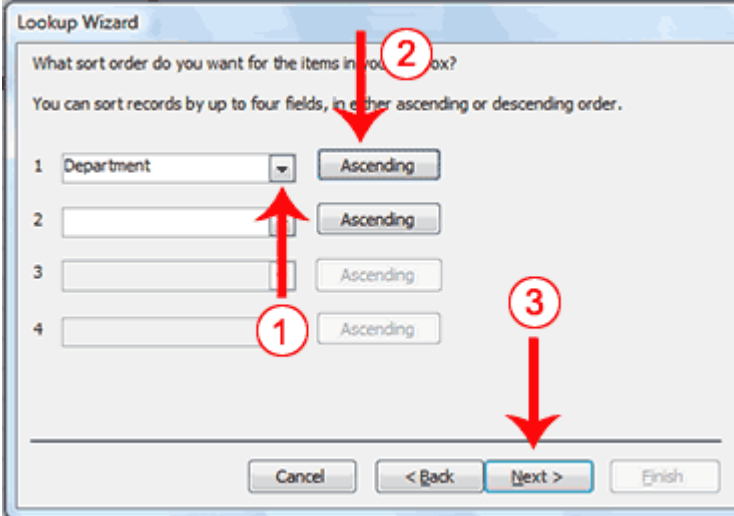
You choose the fields you want to appear in your lookup column. Be sure to include the primary key.



1. Click the field you want.
2. Click the single right-arrow button . Access places the field in the Selected Fields column. Repeat this process to select additional fields. If you want all the fields in the table, click the double right-arrow button . **Note:** Use the single left-arrow and the double left-arrows to deselect fields.
3. Click Next. The Lookup Wizard moves to the next page.

Sort fields

The Lookup Wizard allows you to sort the records in a lookup column. You can display records in order, either ascending (alphabetical from A to Z, lowest number to highest number, earliest date to latest date) or descending (alphabetical from Z to A, highest number to lowest number, latest date to earliest date). You can also sort within a sort. For example, you can sort by state and then within each state by city, and then within each city by street address. If you are creating a sort within a sort, create the highest level sort on line one, the next level sort on line two, and so on. In the state, city, and street address example, you create the state on line one, the city on line two, and the street address on line three.

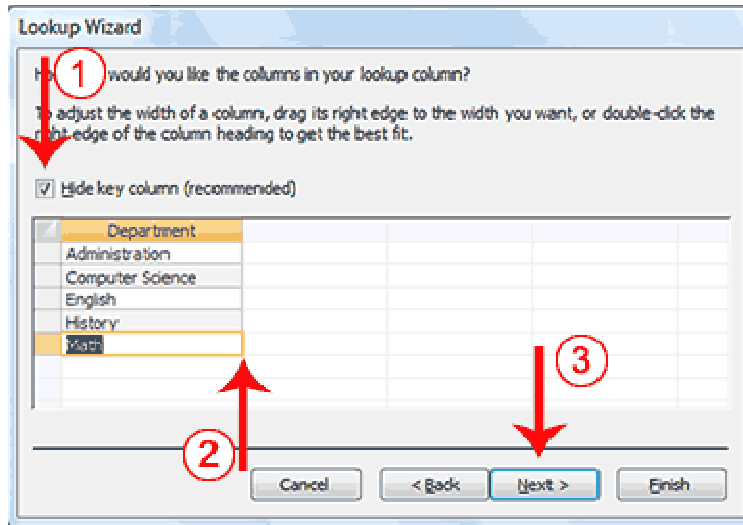


The screenshot shows the 'Lookup Wizard' dialog box. The title bar reads 'Lookup Wizard'. The main text asks, 'What sort order do you want for the items in your box?' and provides instructions: 'You can sort records by up to four fields, in either ascending or descending order.' Below this, there are four rows for sorting. Row 1 has a dropdown menu with 'Department' selected and an 'Ascending' button. Row 2 has an empty dropdown and an 'Ascending' button. Row 3 has an empty dropdown and an 'Ascending' button. Row 4 has an empty dropdown and an 'Ascending' button. At the bottom, there are four buttons: 'Cancel', '< Back', 'Next >', and 'Finish'. Three red arrows with circled numbers point to specific elements: arrow 1 points to the dropdown arrow in row 1, arrow 2 points to the 'Ascending' button in row 1, and arrow 3 points to the 'Next >' button.

1. Click the down-arrow and then select the field you want to sort by.
2. Click to select a sort direction (the button toggles between ascending and descending). You can sort within a sort for up to four levels.
3. Click Next. The Lookup Wizard moves to the next page.

Adjust column widths

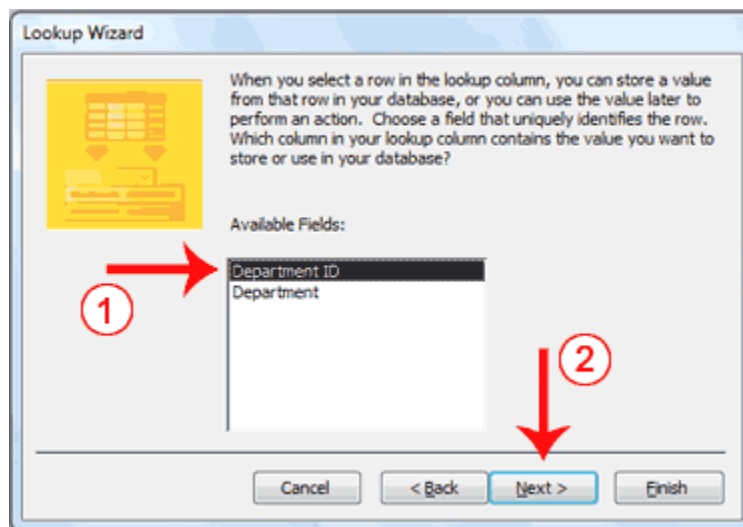
A key column is the column that connects one table or query to another table or query. For example, you can use the Department ID field in the Employees table and the Department ID field in the Departments table to connect the two tables. You may, however, want to display the name of the department when you view the table but not the department ID; if so, leave the Hide Key Column box checked.



1. Deselect Hide Key Column, if you wish.
2. Adjust the column widths by dragging or double-clicking the right vertical border for the column.
3. Click Next. The Lookup Wizard moves to the next page.

Specify the Key Field (if you deselected Hide Key Column)

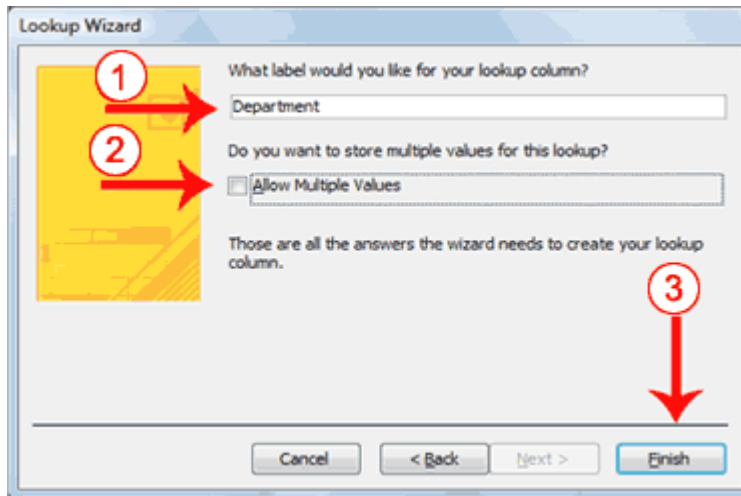
A key field is a field that uniquely identifies a record. If you deselected Hide Key column, you must tell Access which field is the key field.



1. Click the key field.
2. Click Next. The Lookup Wizard moves to the next page.

Name the column

Field names appear at the top of each column. On this page of the Wizard you tell Access what you want to name your lookup column. In Access 2007, multiple values can appear in a field; click the Allow Multiple Values checkbox if you want to allow multiple values.



1. Type the name you want to give the column.
2. Click if you want to allow multiple values in the field.
3. Click Finish. Access creates the lookup column.



How do I create a lookup column by typing a list?

1. Activate the Datasheet tab. (These instructions assume you are in the Datasheet view.)
2. Click the Lookup Column button in the Fields & Columns group. The Lookup Wizard appears.
3. Click the radio button next to "I will type the values I want."
4. Click Next. The Lookup Wizard moves to the next page.
5. Type the number of Columns you want in the Number Of Columns field.
6. Type the values you want under the column heading.
7. Click Next. The Lookup Wizard moves to the next page.
8. Type the column label you want.
9. Click Finish. Access creates a lookup column based on your list.

Lesson 3: Working with Microsoft Access Tables

After you create an Access table, you can modify it, enter data into it manually or [import data](#) from somewhere else, such as Excel. This lesson teaches you how to modify a table and enter data.

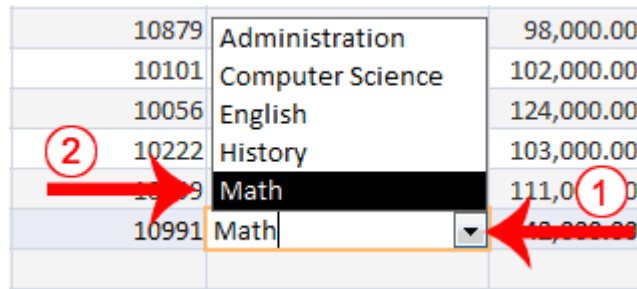
Enter Records

After you have created a table, you can enter data into it.

To enter data into an AutoNumber field:

- Press the Tab key. When you make an entry into another field in the record, Access will automatically make an entry into the AutoNumber field.

To enter data into fields that have a lookup list:



10879	Administration	98,000.00
10101	Computer Science	102,000.00
10056	English	124,000.00
10222	History	103,000.00
10991	Math	111,000.00
10991	Math	111,000.00

1. Click the down-arrow that appears when you click in the field.
2. Click to select the entry you want.
3. Press the Tab key.

To enter data into a Yes/ No field:

Salary	Date of Birth	Full-time
75,000.00	5/3/1986	<input checked="" type="checkbox"/>
30,000.00	9/14/1960	<input type="checkbox"/>
86,000.00	7/26/1953	<input checked="" type="checkbox"/>

- Click the checkbox for Yes; leave the checkbox unchecked for No.

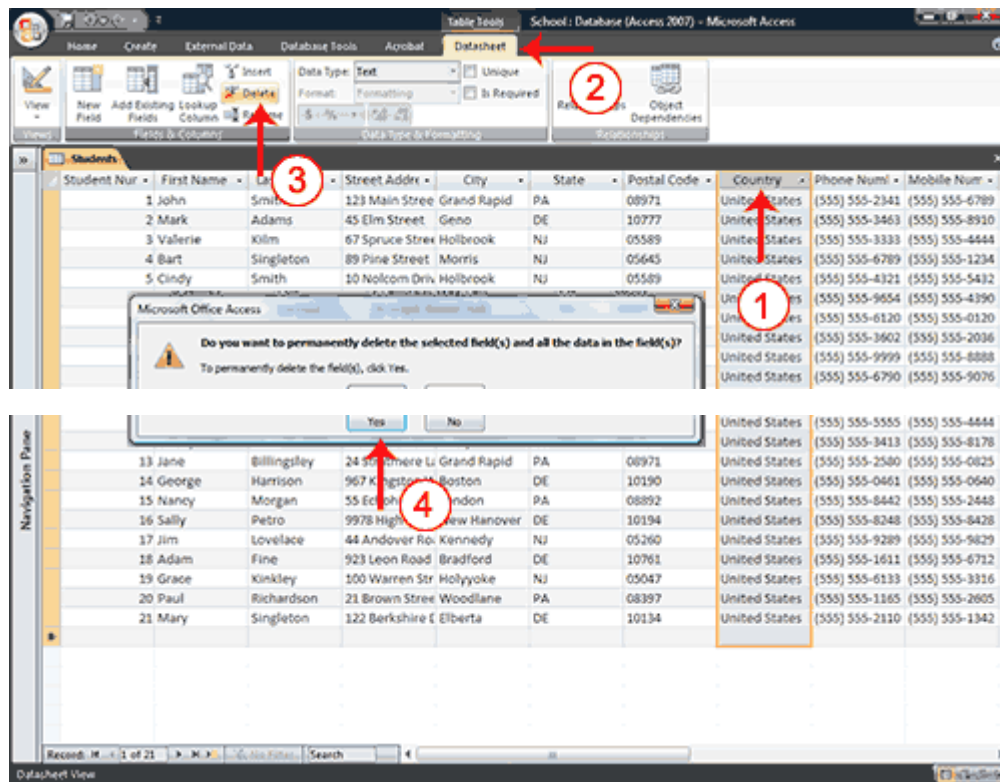
Modify a Table

After you create a table, you may need to modify it. You can delete columns, insert columns, or move columns.

Delete Columns

The Delete option permanently deletes columns and all the data contained in them. You cannot undo a column delete.

To delete columns:

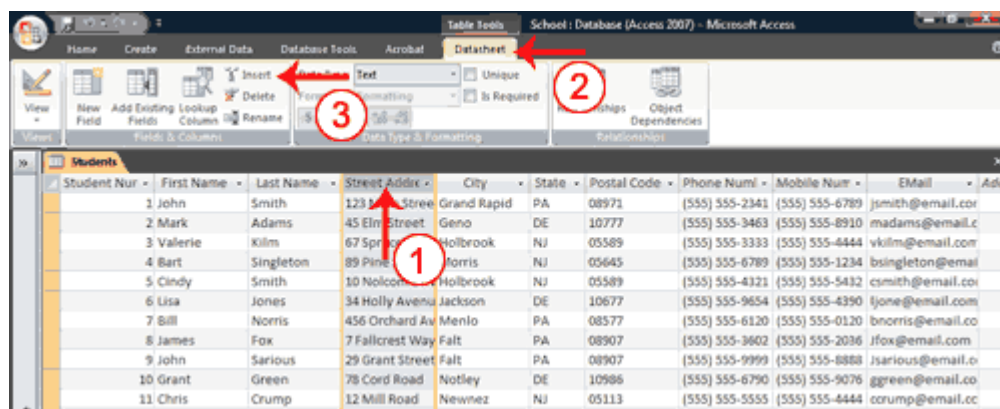


1. Click and drag to select the columns you want to delete.
2. Activate the Datasheet tab.
3. Click Delete in the Fields & Columns group. A prompt appears.
4. Click Yes. Access deletes the columns you selected.

Insert Columns

The Insert option inserts a column before the selected column.

To insert a column:



Lesson 4: Sorting, Filtering, and Creating Relationships

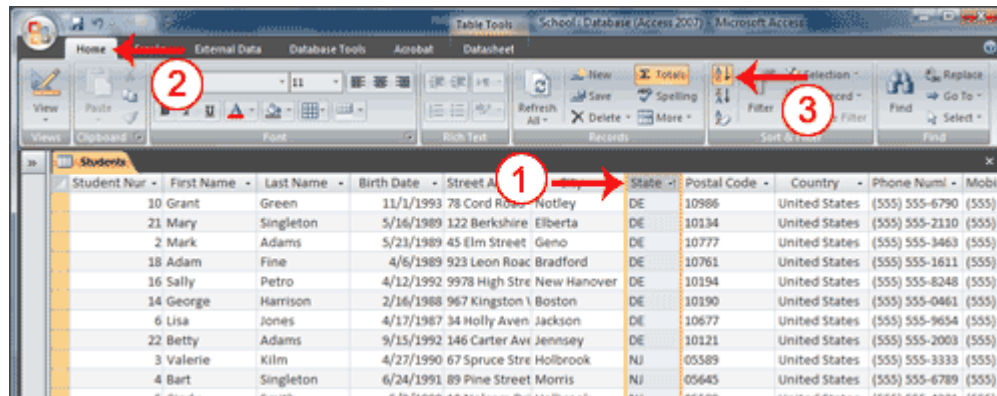
You can sort [Access data](#) so you can view records in the order you want to view them, and you can filter data so you only see the records you want to see. This lesson teaches you how to sort and filter an Access [table](#).



Access data is stored in multiple tables. Relationships join tables together so you can work with the data from multiple tables. This lesson also teaches you how to create relationships.

Sort a Table


By sorting, you can put a column of information in alphabetical, numerical, or date order. You can sort in ascending order (alphabetical from A to Z, lowest number to highest number, earliest date to latest date) or descending order (alphabetical from Z to A, highest number to lowest number, latest date to earliest date). You can also sort within a sort. For example, you can sort by state and then sort within each state by city. When sorting within a sort, perform the innermost sort first. For example, if you are sorting by state and then city, sort the city first and then sort by state.

To add a sort:



1. Click the column label for the column you want to sort.
2. Activate the Home tab.
3. Click the Ascending  or Descending  button in the Sort & Filter group. Access sorts the column in ascending or descending order.

To remove a sort:

1. Activate the Home tab.
2. Click the Clear All Sorts  button in the Sort & Filter group. Access clears all of the sorts you have applied.

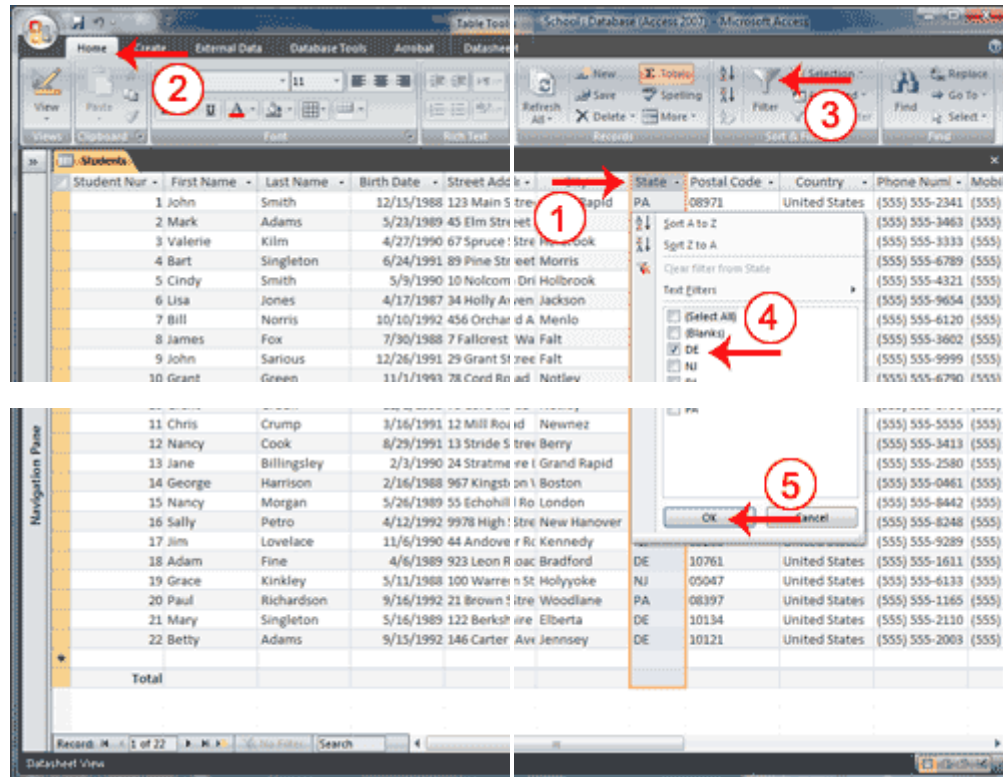
Filter a Table

You can apply a filter to see only the records you want to see. For example, perhaps your database contains students from the states of DE, NJ, and PA and you only want to see the [students](#) from DE. You can filter your data so only DE students display.

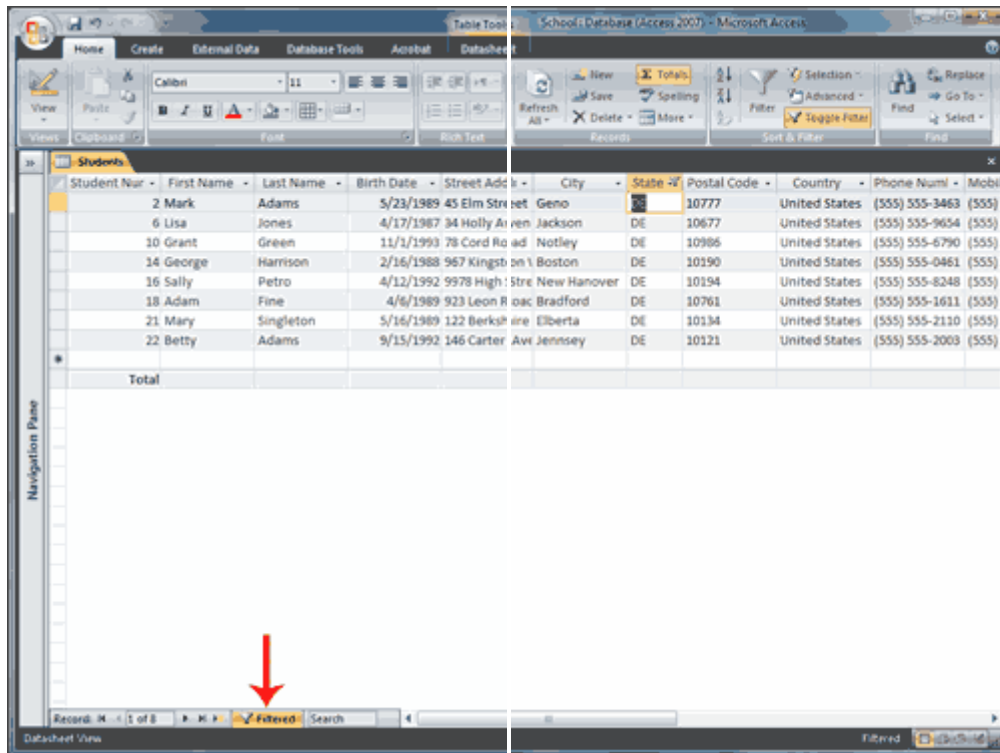
Each time you apply a filter to a column, it replaces any previous filter you applied to that column. For example, if you apply a filter so you only see students in DE, and later you apply a filter so you only see students in NJ, Access clears the DE filter and then applies the NJ filter.

You can apply filters to multiple columns in the same table. For example, by applying a filter first to the State field and then to the Last Name field, you can see all of the students in the state of DE whose last names are Adams.

To apply a filter:



1. Click the column label for the column you want to filter.
2. Activate the Home tab.
3. Click the Filter button. A menu appears.
4. Uncheck the items you do not want to appear, making sure only the items you want are checked.
5. Click OK. Access filters your data and displays the word Filtered at the bottom of the window.



To remove a filter:

1. Activate the Home tab.
2. Click Advanced in the Sort & Filter group. A menu appears.
3. Click Clear All Filters. Access clears all the filters you have applied.

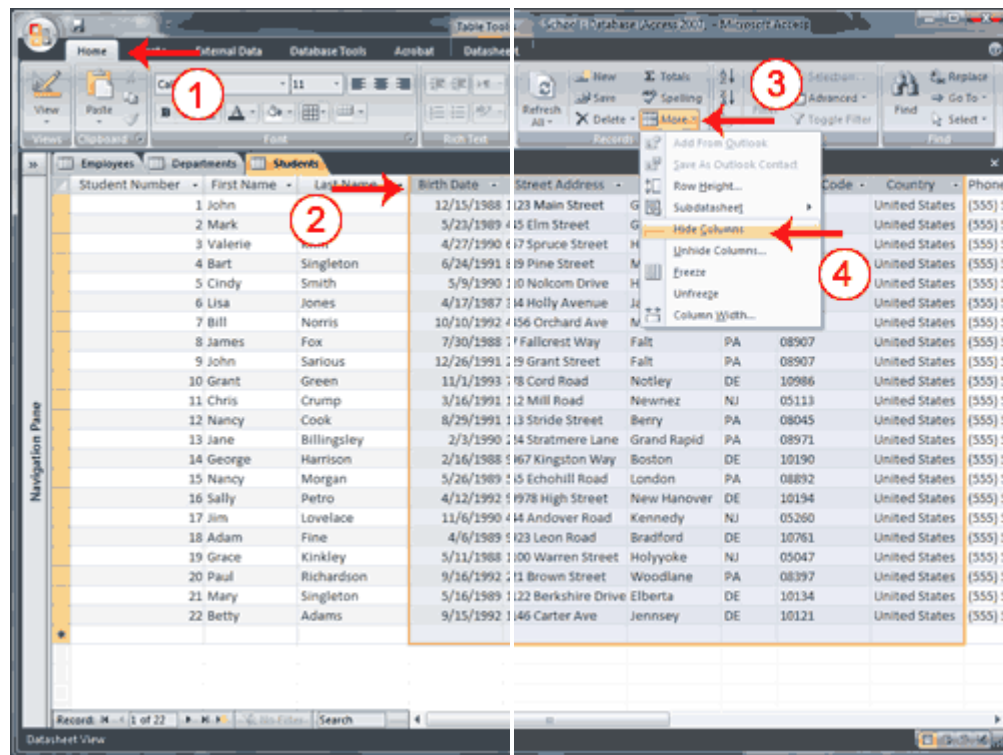


Tip: After you apply a filter, you can use the Toggle Filter button to toggle the application of the filter on and off.

Hide Columns

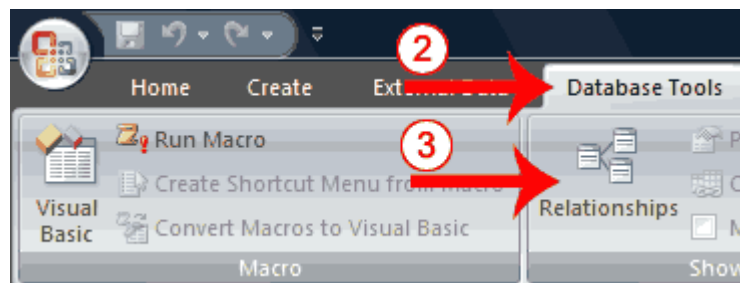
There may be times when you may not want to display a certain column or set of columns. In such cases, you can temporarily hide the column or columns from view. Later, if you want to display them column again, you can unhide them.

To hide columns:

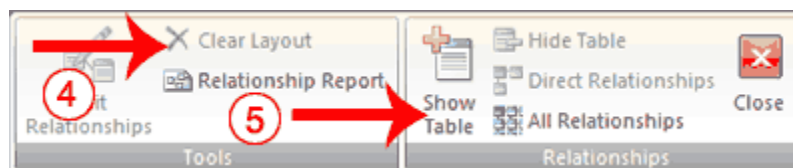


To create relationships:

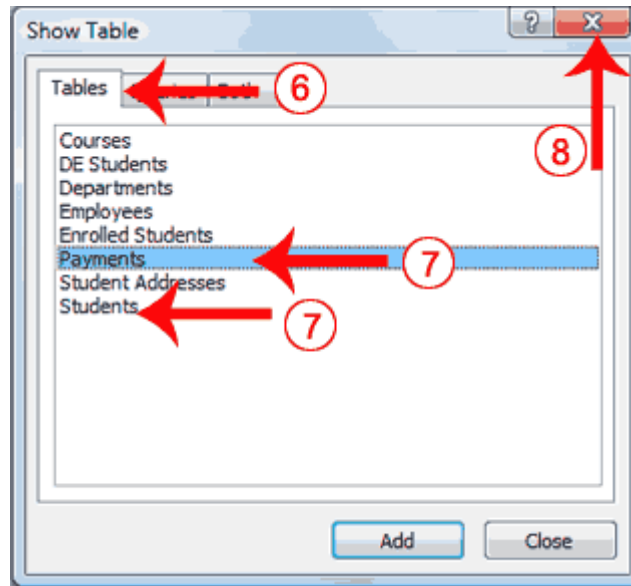
1. Close all tables and forms. (Right-click on the tab of any Object. A menu appears. Click Close All.)



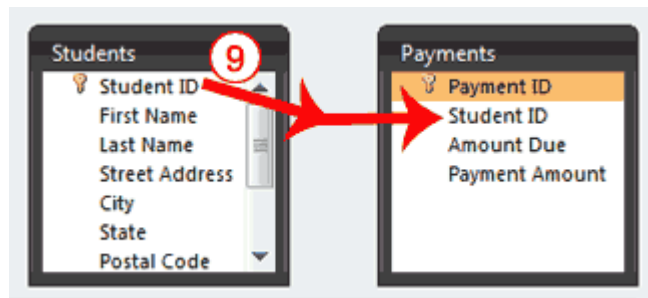
2. Activate the Database Tools tab.
3. Click the Relationships button in the Show/Hide group. The Relationships window appears.



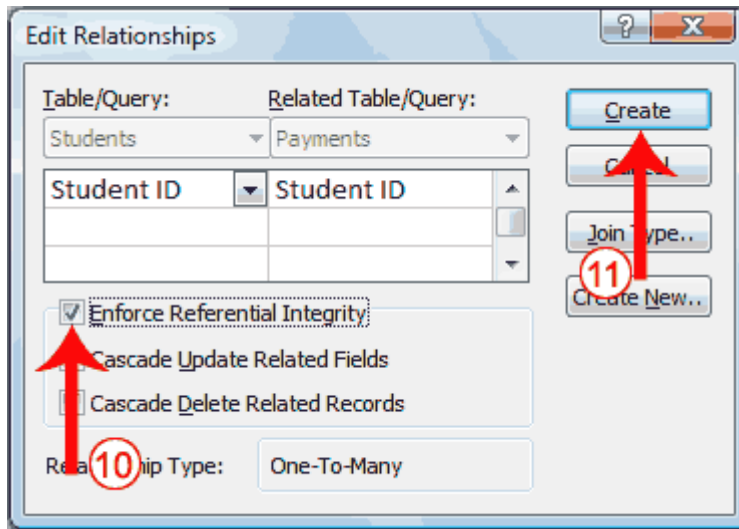
4. If anything appears in the relationships window, click the Clear Layout button in the Tools group. If you are prompted, click Yes.
5. Click the Show Table button in the Relationships group. The Show Table dialog box appears.



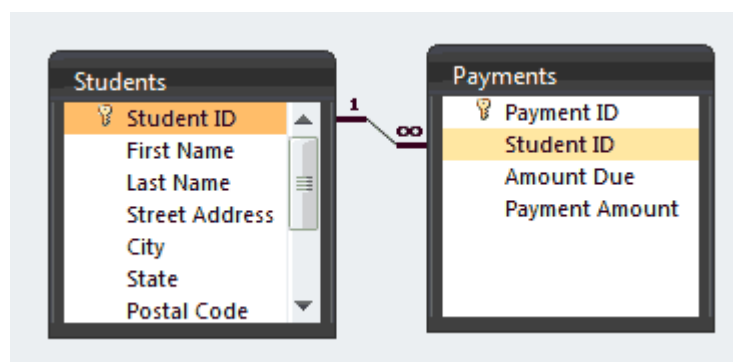
6. Activate the Tables tab if your relationships will be based on tables, activate the Queries tab if your relationships will be based on queries, or activate the Both tab if your relationships will be based on both.
7. Double-click each table or query you want to use to build a relationship. The tables appear in the Relationships window.
8. Click the Close button to close the Show Table dialog box.



9. Drag the Primary table's primary key over the related table's foreign key. After you drag the primary key to the related table's box, the cursor changes to an arrow. Make sure the arrow points to the foreign key. The Edit Relationships Dialog box appears.



10. Click the Enforce Referential Integrity checkbox.
11. Click Create. Access creates a one-to-many relationship between the tables.



12. Click the Save button on the Quick Access toolbar to save the relationship.



Tip: When you create a relationship, you can view the related table as a subdatasheet of the primary table. Open the primary table and click the plus (+) in the far left column. The plus sign turns into a minus (-) sign. If the Insert Subdatasheet dialog box opens, click the table you want to view as a subdatasheet and then click OK. Access displays the subdatasheet each time you click the plus sign in the far left column. Click the minus sign to hide the subdatasheet.

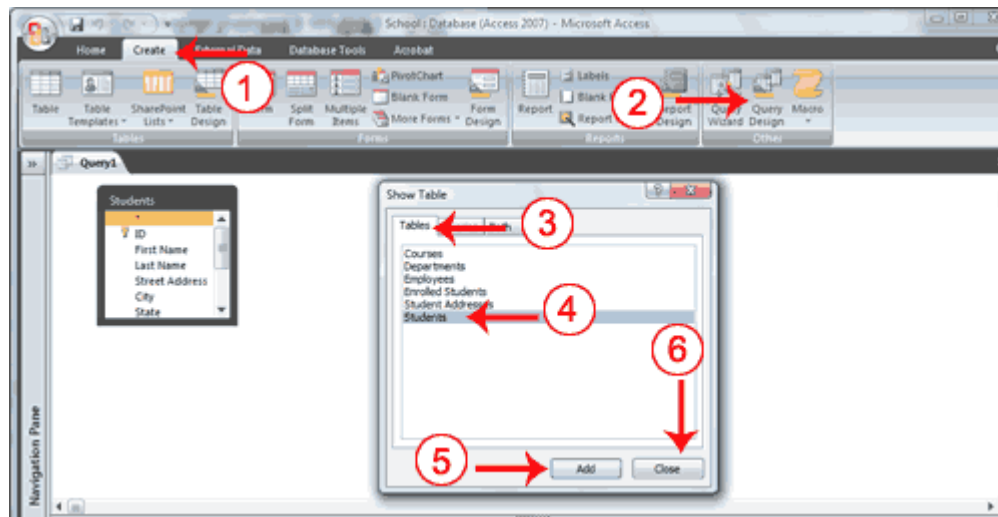


Tip: After a relationship has been created between two tables, you must delete the relationship before you can make modifications to the fields on which the relationship is based. To delete a relationship.

Lesson 5: Creating Microsoft Access Queries

A query can be based on tables or on other queries. To create a query, you open the tables or queries on which you are going to base your query in Query Design view, and then use the options in Design view to create your query. You then click the Run button to display the results. You can save queries for later use.

To open tables or queries in Query Design view:

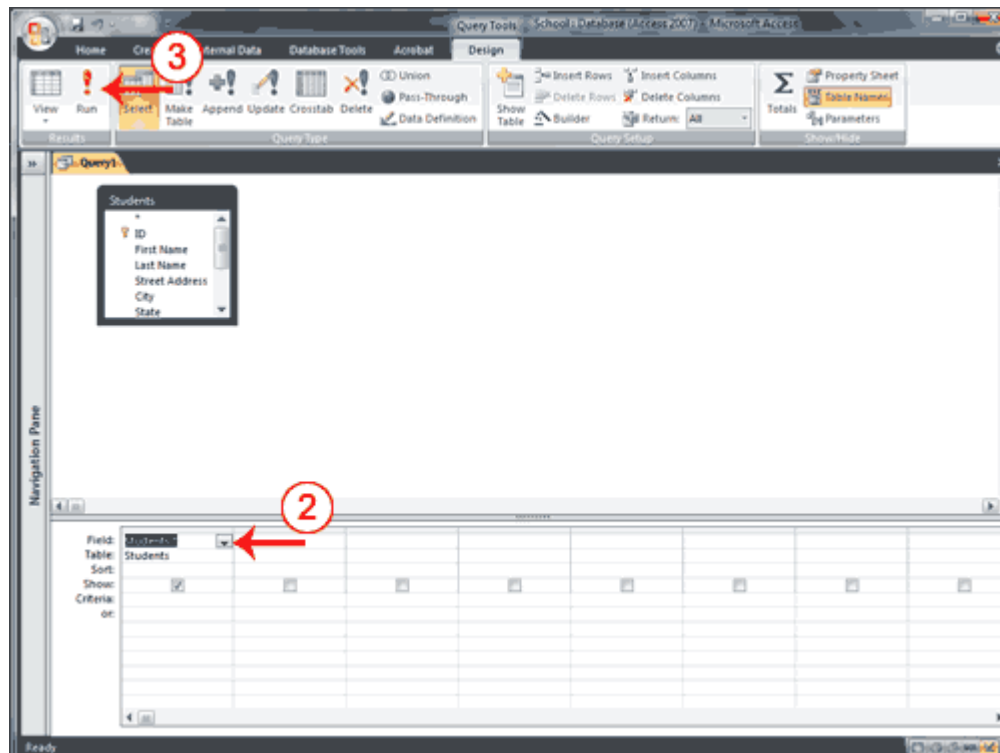


1. Activate the Create tab.
2. Click the Query Design button in the Other group. The Show Table dialog box appears.
3. Activate the Tables tab if you want to base your query on tables, activate the Queries tab if you want base your query on queries or activate the Both tab if you want to base your query on both tables and queries.
4. Click to choose the table or query on which you want to base your query.
5. Click Add. The table appears in the window.
 - a. Click to choose the next table or query on which you want to base your query.
 - b. Continue clicking tables or queries until you have all the tables and queries you plan to use.
6. Click Close. Access changes to Query Design view.

Display All Records and All Fields

In Query Design view, each table has an option that allows you to display all of the fields and all of the records in a table. This option appears on the field line on the drop-down menu as the table name followed by a period and an asterisk (*tablename.**).

To display all records and all fields:



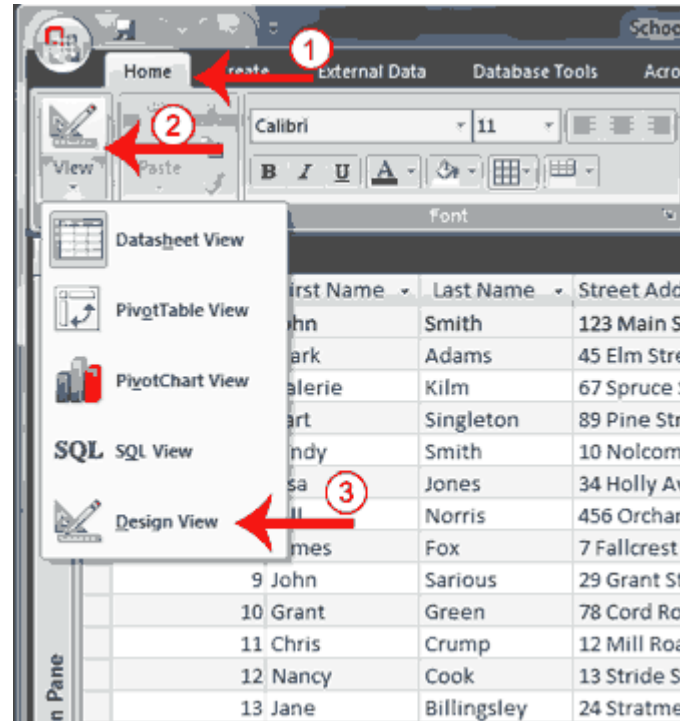
1. Open a table or query in Query Design view.
2. Click the down-arrow in the first field on the Field row and then select the *tablename.** option. The table name appears on the table line.
3. Click the Run button. Access retrieves all of the fields and records for the table and displays them in Datasheet view.

ID	First Name	Last Name	Street Address	City	State	Postal Code	Country	Phone Number	Mobile Number
1	John	Smith	123 Main Street	Grand Rapid	PA	08971	United States	(555) 555-2341	(555) 555-6789
2	Mark	Adams	45 Elm Street	Geno	DE	10777	United States	(555) 555-3463	(555) 555-8910
3	Valerie	Kilm	67 Spruce Street	Holbrook	NJ	05589	United States	(555) 555-3333	(555) 555-4444
4	Bart	Singleton	89 Pine Street	Morris	NJ	05645	United States	(555) 555-6789	(555) 555-1234
5	Cindy	Smith	10 Nolcom Drive	Holbrook	NJ	05589	United States	(555) 555-4321	(555) 555-5432
6	Lisa	Jones	34 Holly Avenue	Jackson	DE	10677	United States	(555) 555-9654	(555) 555-4390
7	Bill	Norris	456 Orchard Av	Menlo	PA	08577	United States	(555) 555-6120	(555) 555-0120
8	James	Fox	7 Fallcrest Way	Falt	PA	08907	United States	(555) 555-3602	(555) 555-2036
9	John	Sarious	29 Grant Street	Falt	PA	08907	United States	(555) 555-9999	(555) 555-8888
10	Grant	Green	78 Cord Road	Notley	DE	10986	United States	(555) 555-6790	(555) 555-9076
11	Chris	Crump	12 Mill Road	Newnez	NJ	05113	United States	(555) 555-5555	(555) 555-4444
12	Nancy	Cook	13 Stride Street	Berry	PA	08045	United States	(555) 555-3413	(555) 555-8178
13	Jane	Billingsley	24 Stratmere Ln	Grand Rapid	PA	08971	United States	(555) 555-2580	(555) 555-0822
14	George	Harrison	967 Kingston W	Boston	DE	10190	United States	(555) 555-0461	(555) 555-0640
15	Nancy	Morgan	55 Echocill Road	London	PA	08892	United States	(555) 555-8442	(555) 555-2448
16	Sally	Petro	9978 High Street	New Hanover	DE	10194	United States	(555) 555-8248	(555) 555-8428
17	Jim	Lovelace	44 Andover Road	Kennedy	NJ	05260	United States	(555) 555-9289	(555) 555-9829
18	Adam	Fine	923 Leon Road	Bradford	DE	10761	United States	(555) 555-1611	(555) 555-6712
19	Grace	Kinkley	100 Warren Street	Holyoke	NJ	05047	United States	(555) 555-6133	(555) 555-3316
20	Paul	Richardson	21 Brown Street	Woodlane	PA	08397	United States	(555) 555-1165	(555) 555-2605
21	Mary	Singleton	122 Berkshire Ct	Elberta	DE	10134	United States	(555) 555-2110	(555) 555-1342
	(New)								

Change from Datasheet View to Query Design View


After you run a query, you can easily change back to Query Design view and make modifications to your query or create a new query.

To change to Query Design view:



1. Activate the Home tab.
2. Click the down-arrow below View in the Views group. A menu appears.
3. Click Design View. Access changes to Query Design view. You can modify your query.

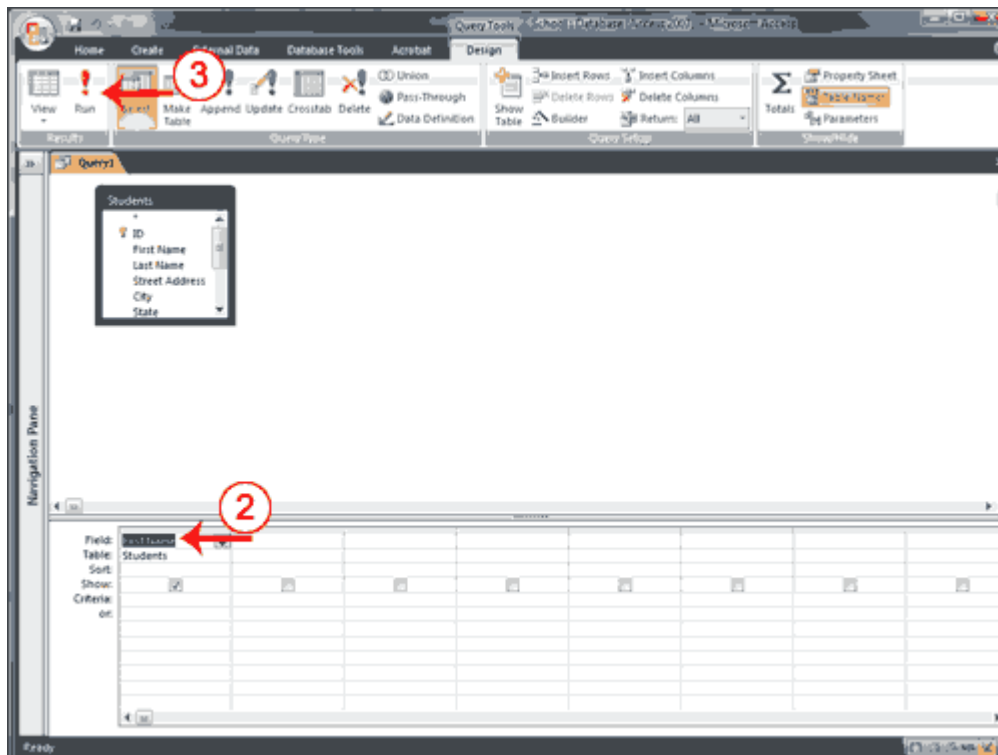


Tip: You can also click the Design button  in the lower-right corner of the Access window to change to Design view.

Retrieve a Single Column

You can use an Access query to retrieve a single column of data. Instead of choosing the *tablename.** option on the Field line in Query Design view, choose the name of the field you want to retrieve.

To retrieve a single column:



1. Open a table or query in Query Design view.
2. Choose the field name you want to display in the field line.
3. Click the Run button. Access retrieves the column you chose.

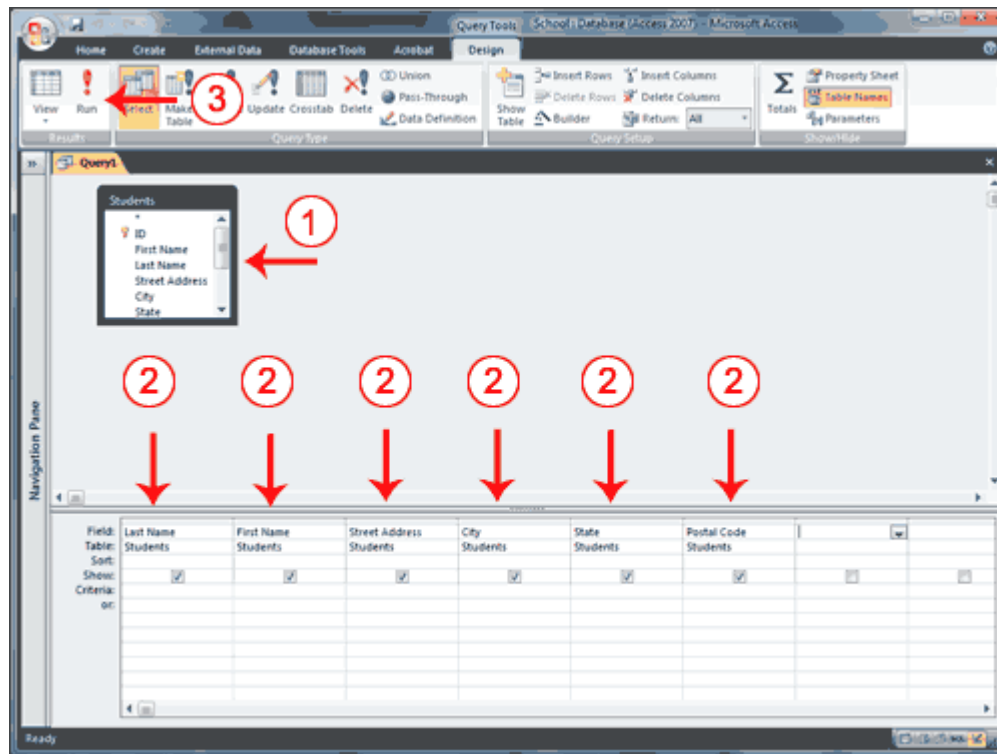
The screenshot shows the 'Query1' window displaying the results of the query. The 'Field List' pane shows 'First Name' selected. The data grid below contains a list of names:

Field	Value
First Name	John
First Name	Mark
First Name	Valerie
First Name	Bart
First Name	Cindy
First Name	Lisa
First Name	Bill
First Name	James
First Name	John
First Name	Grant
First Name	Chris
First Name	Nancy
First Name	Jane
First Name	George
First Name	Nancy
First Name	Sally
First Name	Jim
First Name	Adam
First Name	Grace
First Name	Paul
First Name	Mary
*	

Retrieve Multiple Columns

You can use an Access query to retrieve multiple columns of data. On the Field line in Query Design view, choose the field name of each field you want to retrieve in the order you want to retrieve them.

To retrieve multiple columns:



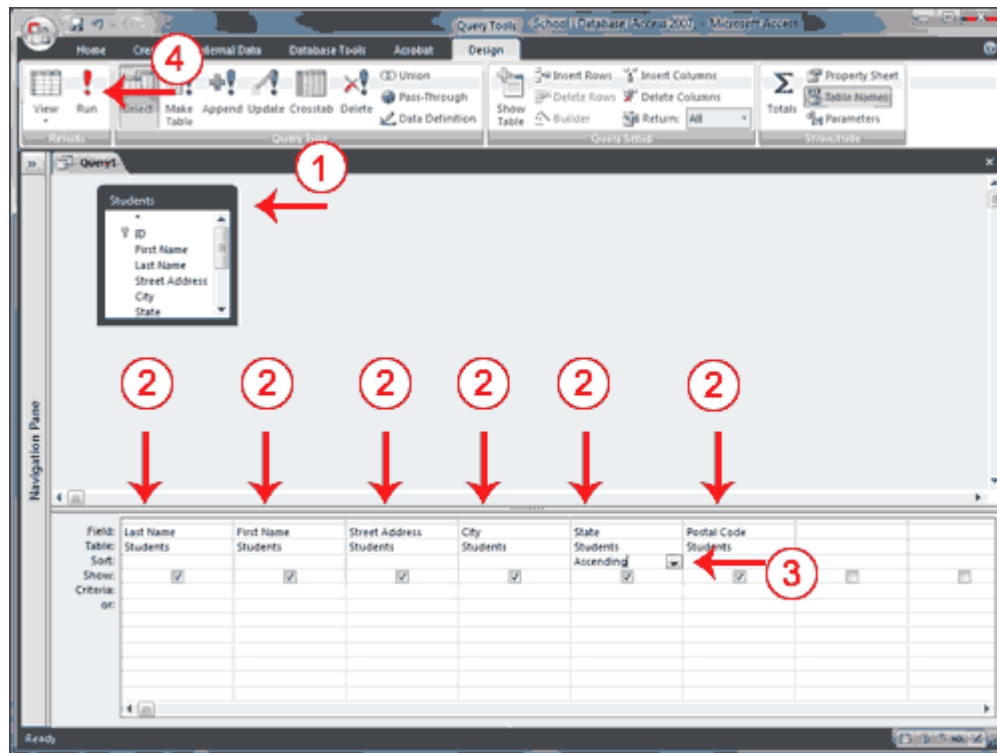
1. Open a table or query in Query Design view.
2. Choose the field names you want to retrieve in the order you want to retrieve them.
3. Click the Run button. Access retrieves the columns you chose.

Last Name	First Name	Street Address	City	State	Postal Code
Smith	John	123 Main Street	Grand Rapid	PA	08971
Adams	Mark	45 Elm Street	Geno	DE	10777
Kilm	Valerie	67 Spruce Street	Holbrook	NJ	05589
Singleton	Bart	89 Pine Street	Morris	NJ	05645
Smith	Cindy	10 Nolcom Drive	Holbrook	NJ	05589
Jones	Lisa	34 Holly Avenue	Jackson	DE	10677
Norris	Bill	456 Orchard Ave	Menlo	PA	08577
Fox	James	7 Fallcrest Way	Falt	PA	08907
Sarious	John	29 Grant Street	Falt	PA	08907
Green	Grant	78 Cord Road	Notley	DE	10986
Crump	Chris	12 Mill Road	Newnez	NJ	05113
Cook	Nancy	13 Stride Street	Berry	PA	08045
Billingsley	Jane	24 Stratmere Lane	Grand Rapid	PA	08971
Harrison	George	967 Kingston Way	Boston	DE	10190
Morgan	Nancy	55 Echohill Road	London	PA	08892
Petro	Sally	9978 High Street	New Hanover	DE	10194
Lovelace	Jim	44 Andover Road	Kennedy	NJ	05260
Fine	Adam	923 Leon Road	Bradford	DE	10761
Kinkley	Grace	100 Warren Street	Holyoke	NJ	05047
Richardson	Paul	21 Brown Street	Woodlane	PA	08397
Singleton	Mary	122 Berkshire Drive	Elberta	DE	10134
*					

Sort a Query

When creating a query, you can sort the rows you retrieve in ascending or descending order by choosing the option you want on the Sort row in Query Design view.

To perform a sort:



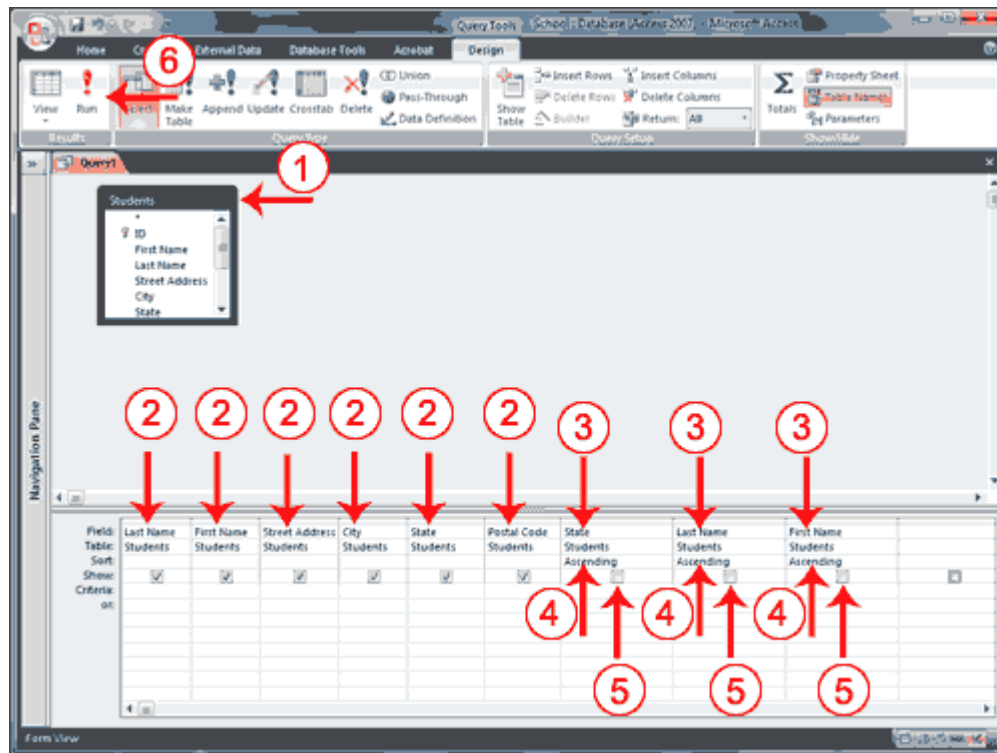
1. Open a table or query in Query Design view.
2. Choose the field names you want to retrieve in the order you want to retrieve them.
3. Under the field you want to sort, click the down-arrow and then choose Ascending or Descending.
4. Click the Run button. Access retrieves the columns you chose and displays the rows in the order you specified.

Last Name	First Name	Street Address	City	State	Postal Code
Green	Grant	78 Cord Road	Notley	DE	10986
Adams	Mark	45 Elm Street	Geno	DE	10777
Fine	Adam	923 Leon Road	Bradford	DE	10761
Petro	Sally	9978 High Street	New Hanover	DE	10194
Harrison	George	967 Kingston Way	Boston	DE	10190
Jones	Lisa	34 Holly Avenue	Jackson	DE	10677
Singleton	Mary	122 Berkshire Drive	Elberta	DE	10134
Kilm	Valerie	67 Spruce Street	Holbrook	NJ	05589
Singleton	Bart	89 Pine Street	Morris	NJ	05645
Smith	Cindy	10 Nolcom Drive	Holbrook	NJ	05589
Crump	Chris	12 Mill Road	Newnez	NJ	05113
Lovelace	Jim	44 Andover Road	Kennedy	NJ	05260
Kinkley	Grace	100 Warren Street	Hollyoke	NJ	05047
Smith	John	123 Main Street	Grand Rapid	PA	08971
Sarious	John	29 Grant Street	Falt	PA	08907
Fox	James	7 Fallcrest Way	Falt	PA	08907
Norris	Bill	456 Orchard Ave	Menlo	PA	08577
Billingsley	Jane	24 Stratmere Lane	Grand Rapid	PA	08971
Morgan	Nancy	55 Echohill Road	London	PA	08892
Richardson	Paul	21 Brown Street	Woodlane	PA	08397
Cook	Nancy	13 Stride Street	Berry	PA	08045
*					

Sort Multiple Columns in a Query

As you learned in the previous section, you can sort the rows your query returns. You can also create sorts within a sort. For example, you can sort by state and then within a state, you can sort by last name and then by first name. You specify the sort in the order you want the sort to occur. If you want to sort by state and then by last name within a state and then by first name within last name, you enter the sort in the following order: city, last name, first name. Your sort order may not agree with the order in which you want to display fields. In such a case, you can use fields that do not display to enter your sort order. To prevent a field from displaying, deselect the Show box on the Show row.

To sort multiple columns:



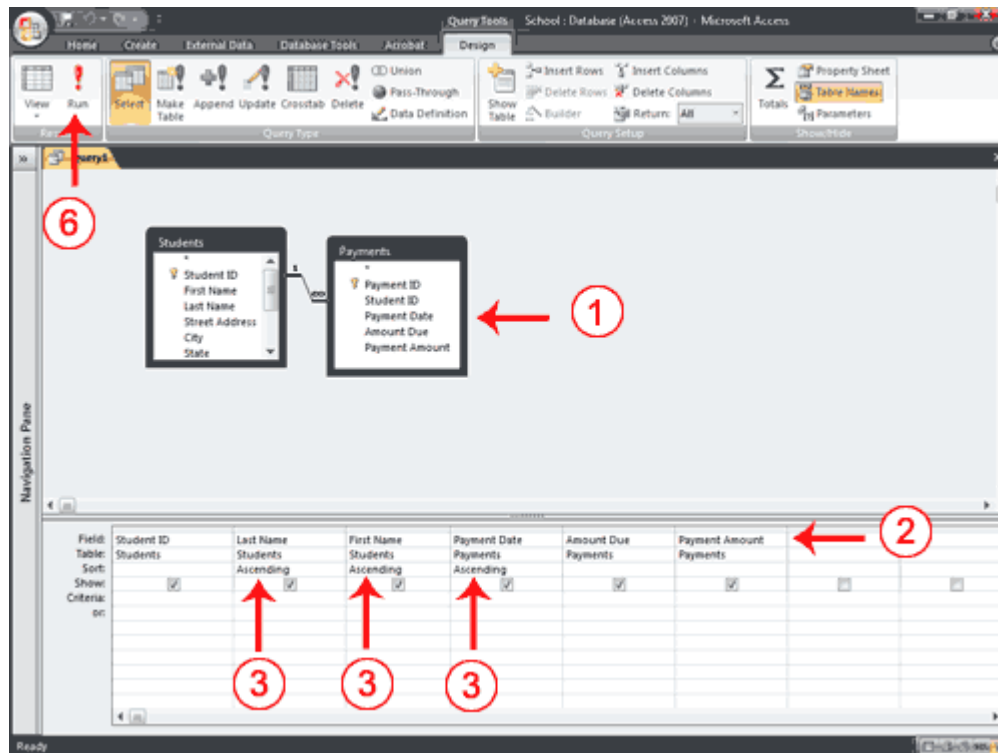
1. Open a table or query in Query Design view.
2. Choose the field names you want to retrieve in the order you want to retrieve them.
3. Choose the field names you want to sort by in the order you want to sort.
4. Under the fields you want to sort by, choose Ascending or Descending.
5. Deselect the Show button for the columns you do not want to display.
6. Click the Run button. Access retrieves the columns you chose and displays the rows in the order you specified.

Last Name	First Name	Street Address	City	State	Postal Code
Adams	Betty	45 Elm Street	Geno	DE	10777
Adams	Fred	45 Elm Street	Geno	DE	10777
Adams	Mark	45 Elm Street	Geno	DE	10777
Fine	Adam	923 Leon Road	Bradford	DE	10761
Green	Grant	78 Cord Road	Notley	DE	10986
Green	Kristen	78 Cord Road	Notley	DE	10986
Harrison	George	967 Kingston Way	Boston	DE	10190
Jones	Lisa	34 Holly Avenue	Jackson	DE	10677
Petro	Sally	9978 High Street	New Hanover	DE	10194
Singleton	Mary	122 Berkshire Drive	Elberta	DE	10134
Crump	Chris	12 Mill Road	Newnez	NJ	05113
Kilm	Valerie	67 Spruce Street	Holbrook	NJ	05589
Kinkley	Grace	100 Warren Street	Hollyoke	NJ	05047
Lovelace	Jim	44 Andover Road	Kennedy	NJ	05260
Singleton	Bart	89 Pine Street	Morris	NJ	05645
Smith	Cindy	10 Nolcom Drive	Holbrook	NJ	05589
Billingsley	Jane	24 Stratmere Lane	Grand Rapid	PA	08971
Cook	Nancy	13 Stride Street	Berry	PA	08045
Fox	James	7 Fallcrest Way	Falt	PA	08907
Morgan	Nancy	55 Echohill Road	London	PA	08892
Norris	Bill	456 Orchard Ave	Menlo	PA	08577
Richardson	Paul	21 Brown Street	Woodlane	PA	08397
Sarious	John	29 Grant Street	Falt	PA	08907
Smith	John	123 Main Street	Grand Rapid	PA	08971
*					

Create a Query That Uses Two or More Tables

If you want to view data from two or more tables or queries, you can create a query that pulls the data from multiple tables or queries. The tables and queries from which you pull your data should have a relationship.

To create a query that uses two or more tables:



1. Open the tables and/or queries you want to use in Query Design view.
2. Choose the field names you want to retrieve in the order you want to retrieve them.
3. Choose the field names you want to sort by in the order you want to sort. Under the fields you want to sort by, choose Ascending or Descending.
4. Enter your selection criteria, if necessary (Not applicable in this example).
5. Deselect the Show button for columns you do not want to display (Not applicable in this example).
6. Click the Run button. Access retrieves the columns you chose and displays the rows in the order you specified.

Student ID	Last Name	First Name	Payment Date	Amount Due	Payment Amount
1	Adams	Mark	1/20/2009	700	300
2	Adams	Mark	2/16/2009	400	300
3	Kilm	Valerie	1/13/2009	500	250
3	Kilm	Valerie	2/28/2009	250	250
1	Smith	John	2/15/2009	500	500
* (New)					

Save a Query

After you create a query, you can save it. You can rerun a saved query at any time. If you change the data on which the saved query is based, you will see the changes when you rerun the query.

To save a query:

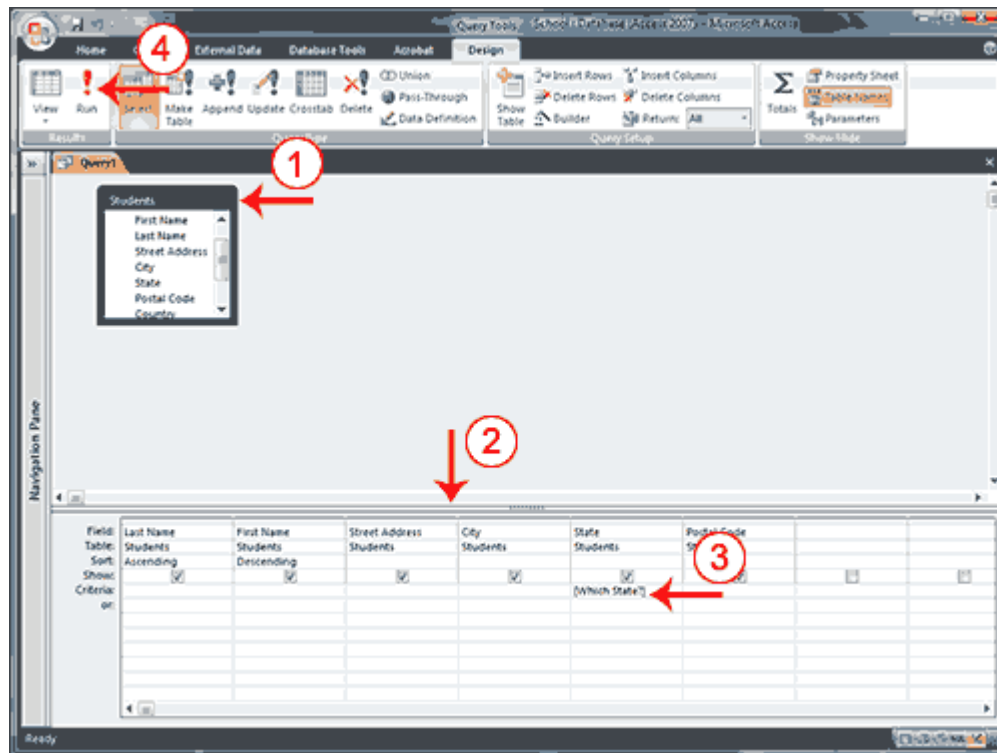


1. Click the Save button on the Quick Access toolbar.
Access saves the query unless you are saving for the first time. If you are saving for the first time, the Save As dialog box appears.
2. Type the name you want to give your query.
3. Click OK. Access saves the query. You can now access the query by using the Navigation pane.

Create a Parameter Query

If instead of entering predetermined criteria, you want to prompt users when a query runs, you can create a parameter query. You create a parameter query by enclosing a question in square brackets ([]). For example, if you want to create a parameter query that asks users which State they want to use from the Student's table, you would type [Which State?] on the Criteria line under the State column. When the query runs, Access will prompt the user for the answer to your question.

To create a parameter query:



1. Open a table or query in Query Design view.
2. Create your query.
3. On the Criteria line, type the prompt within square brackets.
4. Click the Run button. Access prompts you.

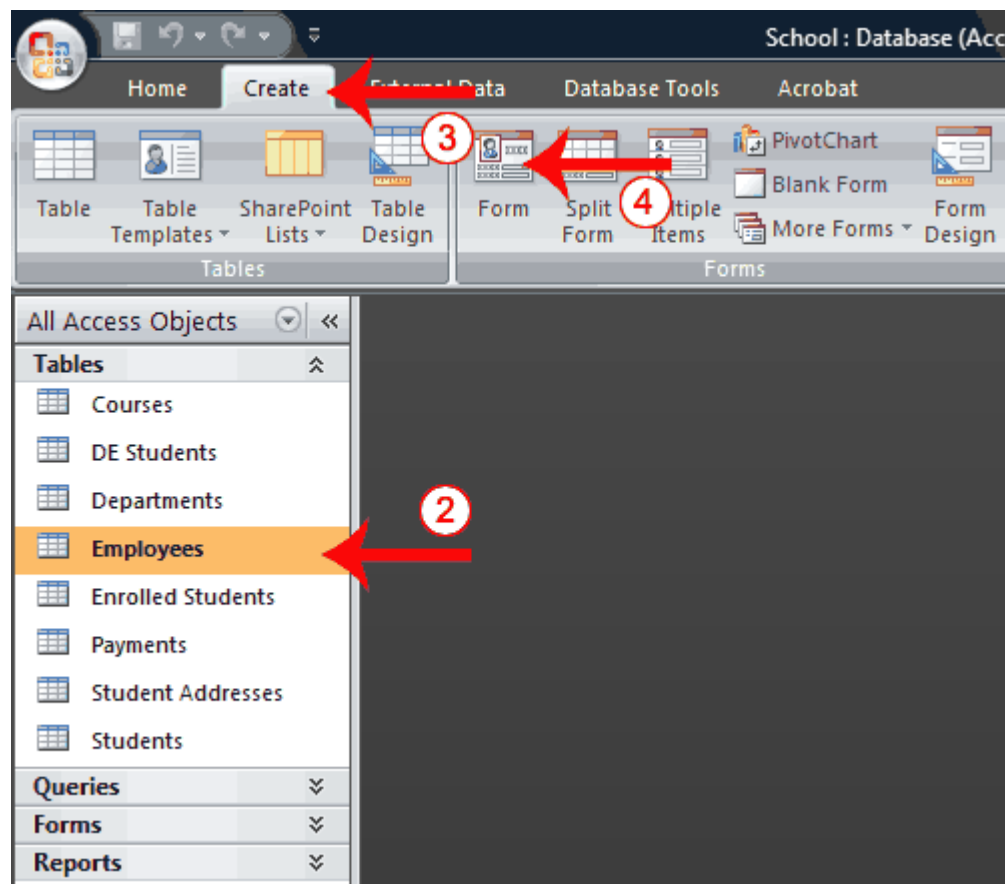
Lesson 6: Creating Forms

Access forms are much like paper forms: you can use them to enter, edit, or [display data](#). They are based on tables. When using a form, you can choose the format, the arrangement, and which fields you want to display. This lesson teaches you how to create forms.

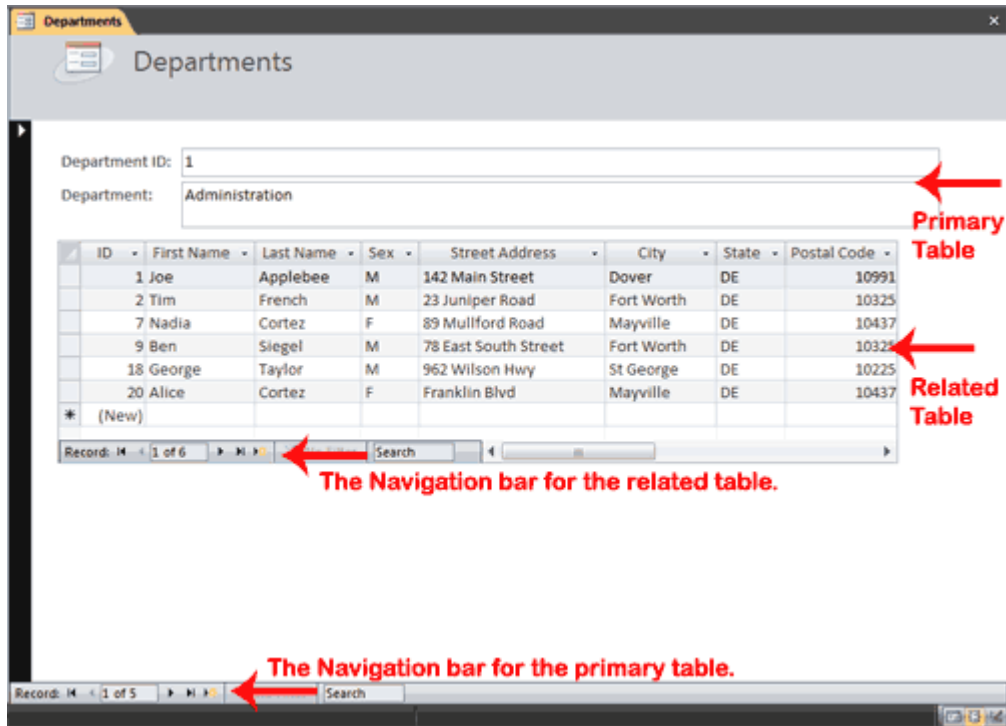
Using the Form Button

Access can automatically create several types of forms. For example, when you click the Form button on the Create tab, Access places all fields in the selected table on a form. If the table has a one-to-many relationship with one other table or query, Access creates a stacked form (the records are displayed in a column) for the primary table and a datasheet for the related table. If there are several tables with a one-to-many relationship, Access does not create the datasheet.

To create a form:



1. Open the Navigation pane.
2. Click the table or query on which you want to base your form.
3. Activate the Create tab.
4. Click Form in the Forms group. Access creates a form.



You can use the Navigation bars to move through the records on a form.



1	Go to First Record
2	Go to Previous Record
3	The Current Record
4	Go to Next Record
5	Go to Last Record
6	Create a New (Blank) Record



Tip: After you create a form, you can save it. You can open a saved form at any time.

To save a form:

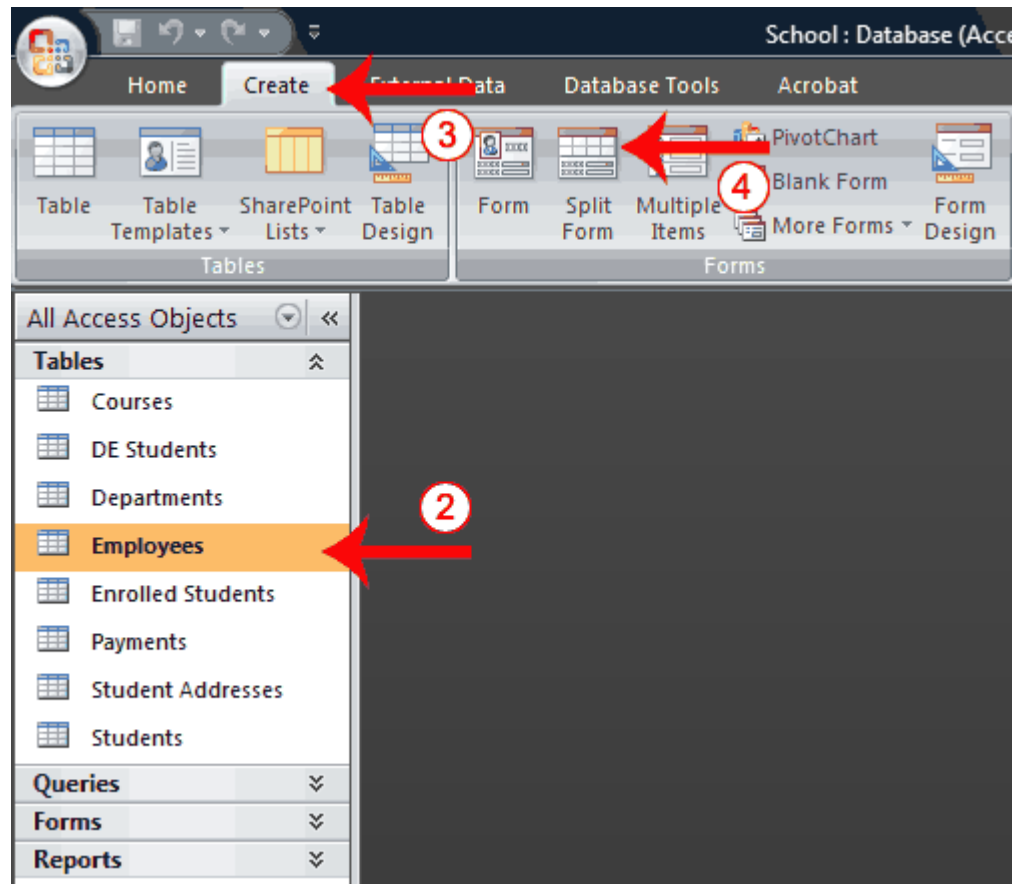
1. Click the **Save** button on the Quick Access toolbar. Access saves the form unless you are saving for the first time. If you are saving for the first time, the **Save As dialog box** appears.
2. Type the name you want to give the form.
3. Click **OK**. Access saves the form. You can now access the form by using the Navigation pane.

You can also save by right-clicking a form's tab and then selecting **Save** from the menu that appears. Access saves the form unless you are saving for the first time. If you are saving for the first time, the **Save As dialog box** appears. Type the name you want to give the form and then click **OK**. Access saves the form. You can now access the form by using the Navigation pane.

Create a Split Form

A split form is a form in which the same data is displayed in two views simultaneously. One part of the form displays in Form view (stacked fields), while the other part displays in Datasheet view. The two views are synchronized, so as you select a field in one view, it is automatically selected in the other view. You can add, change, or delete the data in either view. Using a split form gives you the benefits of two types of forms in a single form. For example, you can use the datasheet portion to locate records and the form portion to edit records.

To create a split form:



1. Open the Navigation pane.
2. Click the table or query on which you want to base your form.
3. Activate the Create tab.
4. Click Split Form in the Forms group. Access creates a split form.

Employees

Employees

ID: 3 City: Seaside

First Name: Jen State: DE

Last Name: Jordan Postal Code: 10999

Sex: F Department: English

Street Address: 6789 Liberator Street Salary: 86,000.00

Date of Birth: 7/26/1953

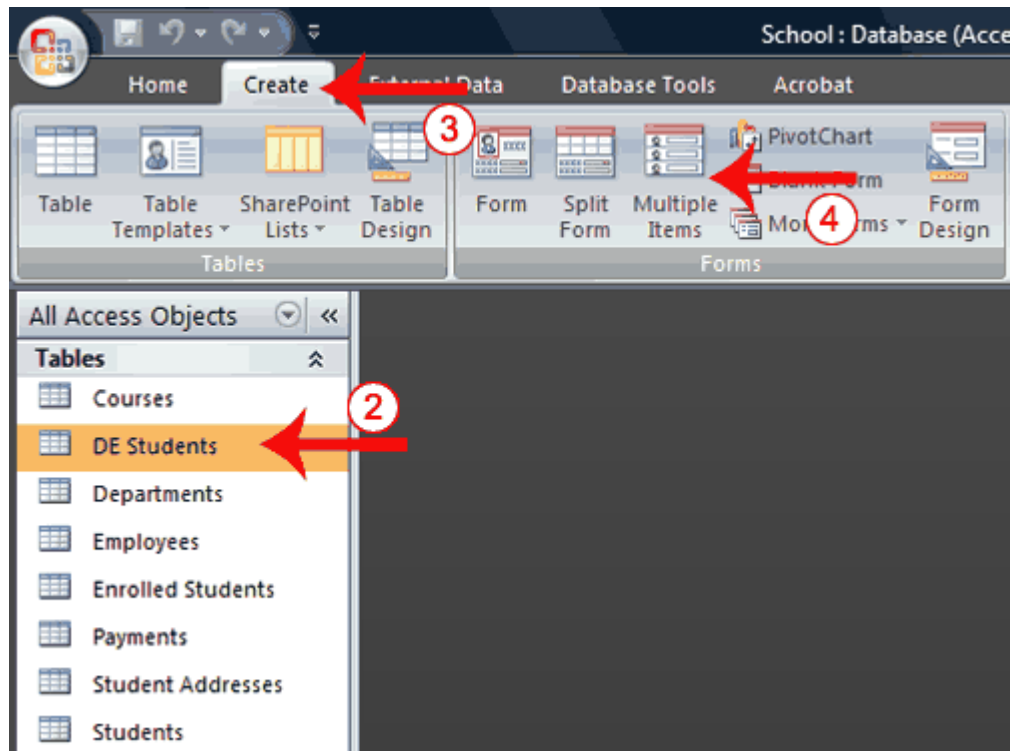
ID	First Name	Last Name	Sex	Street Address	City	State	Postal Code	Department
1	Joe	Applebee	M	142 Main Street	Dover	DE	10991	Administration
2	Tim	French	M	23 Juniper Road	Fort Worth	DE	10325	Administration
3	Jen	Jordan	F	6789 Liberator Street	Seaside	DE	10999	English
5	Tam	Selge	M	192 Carteret Drive	Seaside	DE	10999	Computer Scienc
6	Martin	Logan	M	3567 Dumont Ave	Dover	DE	10991	Math
7	Nadia	Cortez	F	89 Mullford Road	Mayville	DE	10437	Administration
8	Jon	Freedman	M	97 Ridge Street	St George	DE	10225	History
9	Ben	Siegel	M	78 East South Street	Fort Worth	DE	10325	Administration
10	Mitchell	Johnson	M	97 Quail Ridge Way	Fulton	DE	10765	History

Records: 10 of 25

Create a Multiple Items Form

You can use the Multiple Items button on the Forms tab to create a form that displays multiple records, one record per row.

To create a multiple items form:



1. Open the Navigation pane.
2. Click the table or query on which you want to base your form.
3. Activate the Create tab.
4. Click Multiple Items in the Forms group. Access creates a multiple items form.

ID	Last Name	First Name	Street Address	
22	Adams	Betty	45 Elm Street	G
23	Adams	Fred	45 Elm Street	G
2	Adams	Mark	45 Elm Street	G
18	Fine	Adam	923 Leon Road	B
10	Green	Grant	78 Cord Road	N
24	Green	Kristen	78 Cord Road	N
14	Harrison	George	967 Kingston Way	B
6	Jones	Lisa	34 Holly Avenue	Ji
16	Petro	Sally	9978 High Street	N
21	Singleton	Mary	122 Berkshire Drive	E
	(New)			



Tip: A view is a way of looking at an Access object. Forms have three views: Form view, Layout view, and [Design view](#). You can enter, edit, and view data in Form view. You can modify a form in Layout view or Design view. In Layout view, you can see your data, and the form you see closely resembles what your form will look like when you view it in Form view. You can make most, but not all, changes to your form in Layout view. Design view displays the structure of your form. In this view you cannot see the underlying data, but you can perform some tasks in Design view that you cannot perform in Layout view. This tutorial focuses on Layout view.

To change the view:

1. Open the form.
2. Activate the Format tab.
3. Click the down-arrow under the View button. A menu appears.
4. Click the view you want.

Modify a Form

After you create a form, it opens in Layout view, where you can modify it.

To change the size of a field:

1. Click a side of the field and drag to change the width of the field.
2. Click the top or bottom of a field and drag to change the height of a field.

To move a datasheet:

1. Click the datasheet to select it.
2. Click and drag the four-sided arrow in the upper-right corner to move the datasheet.

To resize a datasheet:

1. Click the datasheet to select it.
2. Click a side of the datasheet and drag to change the width.
3. Click the top or bottom of the datasheet and drag to change the height.

To apply an AutoFormat:

The AutoFormat option on the Format tab enables you to apply formats quickly, such as background **colors**, field colors, field label colors, and fonts.

1. Activate the Format tab.
2. Click AutoFormat. The AutoFormat menu appears.
3. Click the format you want to apply.

To change a form title:

When you create a form, by default, Access uses the form name as the title. You can change the title.

1. Activate the Format tab.
2. Click the Title button.
3. Type the new title.

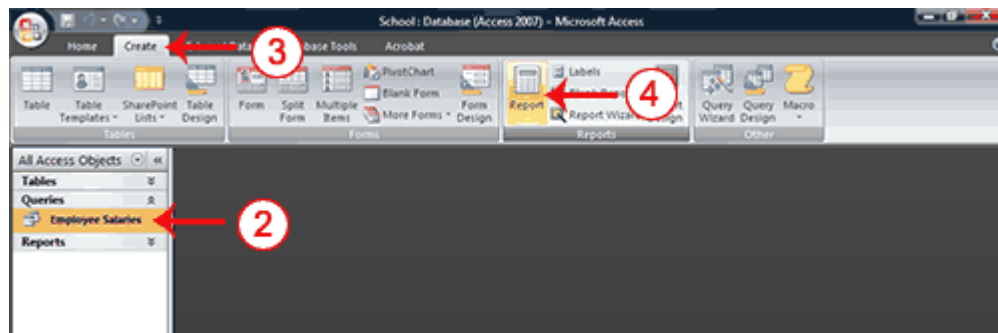
Lesson 7: Creating Reports

Reports organize and summarize data for viewing online or for printing. A detail report displays all of the selected records. You can include summary data such as totals, counts, and percentages in a detail report. A summary report does not list the selected records but instead summarizes the data and presents totals, counts, percentages, or other summary data only. Access has several report generation tools that you can use to create both detail and summary reports quickly. This lesson teaches you how to create reports.

Use the Report Button

The Report button creates a simple report that lists the records in the selected table or query in a columnar format.

To use the Report button:



1. Open the Navigation pane.
2. Click the table or query on which you want to base your report.
3. Activate the Create tab.
4. Click the Report button in the Reports group. Access creates your report and displays your report in Layout view. You can modify the report.

School: Database (Access 2007) - Microsoft Access

Report Layout Tools

Home Create External Data Database Tools Acrobat Format Arrange Page Setup

View Font Conditional Formatting Grouping & Totals Gridlines Logos Add Existing Fields AutoFormat

All Access Objects Employee Salaries

Tables Employee Salaries

Queries

Reports

Employee Salaries

Tuesday, March 10, 2009 1:10:31 PM

Last Name	First Name	Salary
Applebee	Joe	75,000.00
French	Tim	30,000.00
Jordan	Jen	86,000.00
Selge	Tam	95,000.00
Logan	Martin	76,000.00
Cortez	Nadia	40,000.00
Freedman	Jon	55,000.00
Siegel	Ben	20,000.00
Johnson	Mitchell	77,000.00
Norton	Tom	77,000.00
Sanchez	Barbara	98,000.00
Williams	Linda	78,000.00
Jones	Pamela	32,000.00
Franklin	Janet	45,000.00
Thompson	Philip	106,000.00
Siegel	Joy	75,000.00
Taylor	George	150,000.00
Nixon	Len	65,000.00

Layout View

END