

Tips for Setting Up a Database

- Be sure not to leave any blank rows in the middle of the database. Blank rows will cause only the part of the database above the empty portion to be selected when using the database analysis functions (e.g., dsum, dcount, and sort).
- Make sure you enter numeric data as numbers or as all text. Numbers will be counted first when using the analysis functions. To enter a number as text, precede the number with an apostrophe or format the necessary cells as text. If a number is treated as "text," you cannot use the number in mathematical formulas (e.g., SUM and AVERAGE). For more information on entering values and text, refer to [Getting Started with Excel](#).

Creating a Database

Excel recognizes lists of information as a database when you use the database functions. These functions, such as finding, sorting, or subtotaling, can make organizing and analyzing your information easier. A worksheet is made up of columns, rows, and column labels. In a database these are called fields, records, and field names, respectively.

	A	B	C	D	E	F
1	Month	Classical	Rock	Jazz	Folk	Total Sales
2	Jan	900	1025	1000	500	2525
3	Feb	700	950	850	450	2250
4	Mar	950	1100	1000	400	2500
5						
6	TOTALS	2550	3075	2850	1350	7275

Using Database Forms

Entering a lot of database information to the worksheet can be time-consuming and inefficient. You often have to move the cursor around the page and can lose valuable time. Excel has an easier way of entering data called the *Forms* feature. *Forms* allows you to switch from field to field in your record by pressing [Tab]. When a record is added, Excel automatically clears the form and is ready for you to enter the next information. The *Forms* feature is also helpful for searching for a record. The *Find Next* and *Find Prev* options make locating a specific record easier.

Accessing Forms

1. Place the cell pointer within the database

- From the *Data* menu, select **Form...**
A dialog box displaying the sheet name appears.

Sheet1

Pay Period: 20

Student: Chris

Payrate: 5.4

Hours: 12

Total for period: 64.8

1 of 6

New

Delete

Restore

Find Prev

Find Next

Criteria

Close

- To perform your task, follow the instructions under [Using Form Options](#)
- To return to your spreadsheet, click **CLOSE**

Using Form Options

Adding a New Record

- Place the cell pointer within the database
- From the *Data* menu, select **Form...**
A dialog box displaying the sheet name appears.
- Click **NEW**
The form will be cleared and ready for you to enter data.
- In each field, type the desired information
NOTE: To move between fields, press [Tab]
If you press [Enter] after you have typed the last field information, the data will be added to your database and you will automatically go to a blank form to start a new record.
- When you have entered the last record, click **CLOSE**
The new records are added to the end of your database.

Deleting a Record

- Place the cell pointer within the database
- From the *Data* menu, select **Form...**
A dialog box displaying the sheet name appears.
- Locate and select the record that you want to delete
HINT: Use the scroll bar to scroll through the records.
- Click **DELETE**
A confirmation dialog box will appear.
- Click **OK**
- Select **CLOSE** on the sheet name dialog box when finished

Searching for a Record

To ensure that you search the entire database, move to either the first or last record of the database (use the scroll bar).

1. Place the cell pointer within the database
2. From the *Data* menu, select **Form...**
A dialog box displaying the sheet name appears.
3. Click **CRITERIA**
4. Within the appropriate field(s), type the desired search criteria
5. Click **FIND NEXT** or **FIND PREV**
6. Repeat steps 3-5 as necessary
7. When you have completed your search, click **CLOSE**
You are returned to your spreadsheet.

Using the Worksheet Window

If you need to make a few minor changes to the information in your database, sometimes it is quicker to make them through the worksheet window.

Adding a New Record

1. Scroll to the bottom of your database
2. Click the field in which you would like to start entering your data
3. Enter data accordingly
4. Press [Tab]
OR
Use the arrow keys to move to the next field of the record

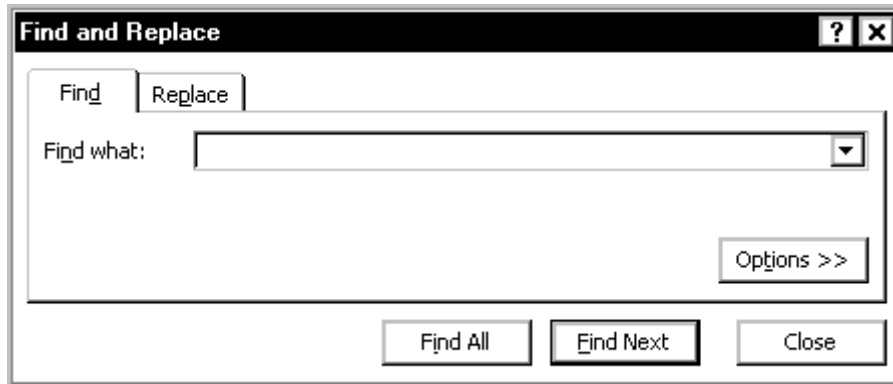
Deleting a Record

WARNING: By deleting a row, the entire contents of the row will be deleted.

1. In your database, scroll to the record that you would like to delete
2. On the left-hand side of the record, click the record number
3. From the *Edit* menu, select **Delete**
OR
Windows: Right click » select **Delete**
Macintosh: Press [Control] and click » select **Delete**
The old record is deleted and rows beneath that row move up.

Searching for a Record

1. From the *Edit* menu, select **Find...**
Windows: The *Find and Replace* dialog box appears.



2. In the *Find what* text box, type the information that you are searching for
3. Click **FIND NEXT**
The record will now be selected in the worksheet window.
4. Click **CLOSE**
Windows: The *Find and Replace* dialog box closes.
Macintosh: The *Find* dialog box closes.
You are returned to your spreadsheet.
For more information on using the *Find and Replace* dialog box, refer to [Using the Find & Replace Features](#).

Working With Filters

Commands in Excel can have different results on records in a database in filter mode. Some effects of filtering a database include the following:

- Cell formatting affects only visible cells in the database.
- When printing the database, only visible cells will be printed.
- The *Sort* command will affect visible cells.
- When deleting data from the database, entire rows must be deleted.
- Most of the *Edit* menu commands affect entire rows, not individual fields (cells).

NOTE: The arrows located at the field labels and before address letters and numbers help remind you that the filtering is turned on.

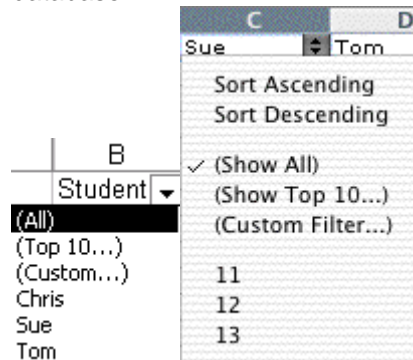
Using AutoFilter

AutoFilter works for most filtering needs, but when you have complex criteria or want to create a copy of the information, [use Advanced Filter](#). The *AutoFilter* command applies pull-down menus directly to the column headings in the database. These menus are used to select the field contents, which determine what records will display.

Activating AutoFilter

1. Select a cell within the database

- From the *Data* menu, select **Filter » AutoFilter**
A pull-down list will be placed next to each label heading within the selected database.



Running AutoFilter

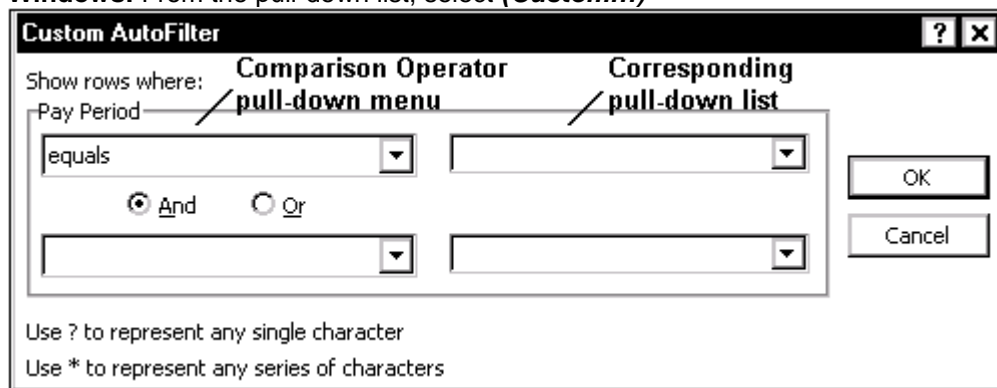
- Activate AutoFilter
- From the appropriate pull-down list, select the field to determine what rows to display
A dialog box corresponding to your choice may appear.

NOTE: When you use *AutoFilter* within a database, the row numbers will turn blue, and the results of the filter will appear in the status bar (e.g., 1 of 12 records found).

Using Custom Filter

A custom filter allows you to select a "range" of information or set multiple criteria.

- Activate AutoFilter
- Windows:** From the pull-down list, select (*Custom...*)



- From the *Comparison Operator* pull-down list, select a type of comparison
- From the corresponding pull-down list, select or type a criteria value
- OPTIONAL:** If you want multiple criteria, select either **And** or **Or** and repeat steps 3 and 4
- Click **OK**
NOTE: When you use *AutoFilter* within a database, the row numbers will turn blue.

Turning Off the AutoFilter

1. From the *Data* menu, select **Filter » AutoFilter**

NOTES:

Windows: *AutoFilter* is active if a grey checked box appears before it; it is inactive if no checked box is present.

Working With the Sort Command

The *Sort* command will arrange the records (rows) in your database according to the contents of a particular column. Excel will sort the following in ascending order: numbers, text, logical values, error values, and blank cells. A descending sort will reverse the above order, except for blank cells, which are always sorted last.

1. Select a cell in the column which you would like to sort
2. From the *Data* menu, select **Sort...**

The *Sort* dialog box appears.

Sort [?] [X]

Sort by _____
Column C [v] Ascending
 Descending

Then by _____
[] [v] Ascending
 Descending

Then by _____
[] [v] Ascending
 Descending

My list has _____
 Header row No header row

[Options...] [OK] [Cancel]

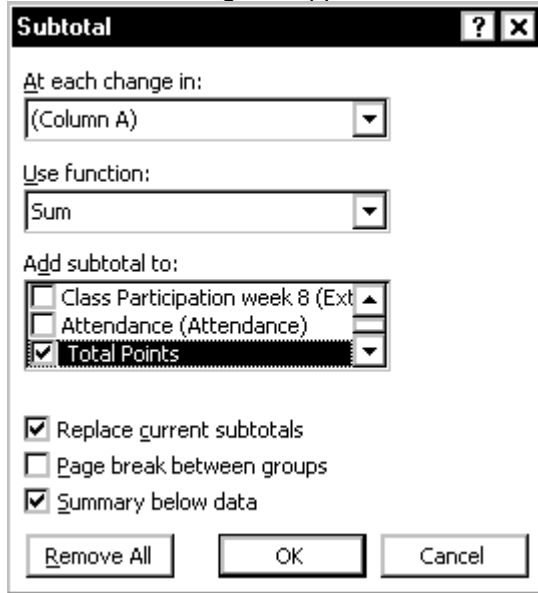
3. From the *Sort by* pull-down list, select the column you want to sort by
NOTE: If column IDs appear instead of column titles, under *My list has*, select **Header row**.
4. Select the sort order (**Ascending** or **Descending**)
5. **OPTIONAL:** If you want to sort by more than one column,
 - a. From the *Then by* pull-down list(s), select the column you want to sort by
 - b. Select the sort order (**Ascending** or **Descending**)

NOTE: Using the **OPTIONS...** button allows you to control how to sort lists of days or months, case-sensitive data, and the sort's orientation.

6. When you have the sort criteria established, click **OK** The data is sorted.

Adding Subtotals

- Sort the data (see [Using the Sort Command](#))
NOTES: Sorting the database is important for grouping the information you want subtotaled. If you do not have column labels on what you are subtotaing, Excel will prompt you to enter column labels or to choose the top row as your column labels. Be aware that if you choose the first row as your column labels, that data will not be included in the subtotals.
- Select a cell within the database
- From the *Data* menu, select **Subtotals...**
 The *Subtotal* dialog box appears.



- From the *At each change in* pull-down list, select the desired option
- From the *Use function* pull-down list, select the desired option
- From the *Add subtotal to* list, select the desired option(s)
- OPTIONAL:** Select/deselect the appropriate options at the bottom of the dialog box
- Click **OK**
 Subtotal lines will be added to the database along with outlines for adjusting the view of the data.

Adjusting Views with Subtotals

When you have applied subtotals to your database, an outline-type bar appears to the left of the column IDs.

The 1 2 3 represent the levels of the view.

Level 1: grand total

Level 2: subtotals and grand total

Level 3: all data in the database

To expand the view one level

1 2 3	A
1	Term PP#
+	3 9891 Total
[-]	4 9893 Total
-	5 9895 Total
[-]	6 9896 Total
-	7 9897 Total
[-]	8
-	9 Grand Total
[-]	10

1. Click the plus sign **+**

To collapse the view one level

1. Click the minus sign **-**

Removing Subtotals

If you no longer need the subtotals, you can easily remove them with a command rather than deleting each row. To remove the subtotals:

1. Select a cell within the database
2. From the *Data* menu, select **Subtotals...**
The *Subtotal* dialog box appears.
3. Click **REMOVE ALL**

Resorting the Data

If you resort the database, Excel will warn you that it will remove the subtotals and resort. After the database has been sorted, you can add subtotals again.