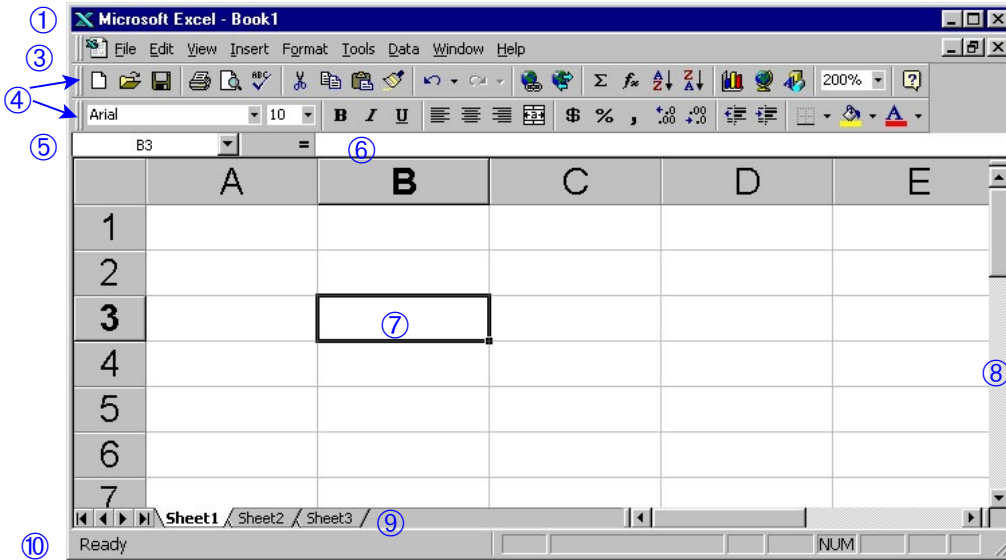


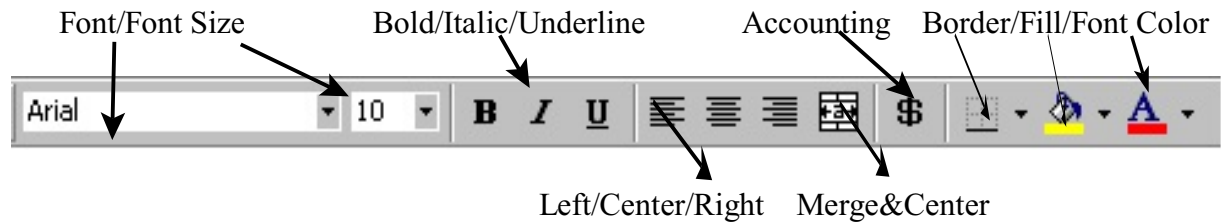
Microsoft Excel



1. Title Bar
2. Min/Max/Close
3. Menu Bar
4. Toolbars
5. Cell Address
6. Formula Bar
7. Selected Cell
8. Scroll Bar
9. Sheet Titles
10. Status Bar

Formatting Toolbar

There are also Toolbar buttons for most of these commands. If you don't know what a button does, pause your mouse cursor over it without clicking to get a pop-up ID tag for the button.



Key Commands

Task:	Menu:	Key(s):	Task:	Menu:	Key(s):
Save a document	File > Save	Ctrl-S	Cut cell(s)	Edit > Cut	Ctrl-X
Print a document	File > Print	Ctrl-P	Copy cell(s)	Edit > Copy	Ctrl-C
Undo last operation	Edit > Undo	Ctrl-Z	Paste cell(s)	Edit > Paste	Ctrl-V

Move around

use Arrow keys, Page Up/Down, Home

Edit mode

press F2

Finish with a cell

press Enter

Make text in a cell go down (wrap) to the next line:

Alt-Enter (may need to format alignment to wrap; see **Format Cells, Alignment, Wrap** above)

Basic Techniques

To Do This:

Select a cell (B3, for example)

Select a range of cells (A1:B3)

Select a column (B)

Select a row (3)

Select several (a range of) columns (A:C)

Select several (a range of) rows (1:3)

Select the whole sheet

Change the width of a column (B)

Change the height of a row (3)

Insert a column

Insert a row

Delete a column (or row)

Do This:

Click the cell (B3) or move there using arrow keys

Position the mouse at the upper left of the range (A1), click-and-drag down and/or right to the end of range (down and right to B3), release mouse button

Click the header button (B) for that column

Click the header button (3) for that row

Click-and-drag from the first column header (A) to the last (C)

Click-and-drag from the first row header (1) to the last (3)

Click the gray header corner between (A) and (1)

Position your mouse at the right edge of a column header (B) and click-and-drag it to the right/left to make it bigger/smaller

Position your mouse at the bottom edge of a row header (3) and click-and-drag it to down/up to make it bigger/smaller

Right-click the header button for the column where you would like a new column, and click Insert. The new column will be inserted at that spot, and the existing column will move over to the right. To insert multiple columns, select multiple columns, then right-click any of the selected header buttons and click Insert.

Right-click the header button for the row where you would like a new row, and click Insert. The new row will be inserted at that spot, and the existing row will move down. To insert multiple rows, select multiple rows, then right-click any of the selected header buttons and click Insert.

Right-click the header button for the column (or row) you wish to delete, then click Delete. To delete multiple columns (or rows), select multiple columns (or rows), then right-click any of the selected header buttons and click Delete.

Fill cells (ex: fill A1:A12 w/ months)

Click where you want to start (A1), type the text for that cell (e.g. January), position your mouse at the bottom right corner of that cell (A1) – look for “fill tool” mouse cursor – click-and-drag down as far as you want to fill (to A12) then release the mouse button. The months (or other “fill” info) display in a pop-up ID tag as you go, and display in the cells when you release the mouse.

Move data (from A1:B3 to D4:E7)

Select the existing range (A1:B3), Cut the data (Edit > Cut). Click the *upper left* cell of the desired range (D4). Paste the data (Edit > Paste).

Copy data (a formula from B3 to C3)

Select the cell(s) you want to copy (B3). Copy the data (Edit > Copy). Click the destination cell (or the upper left cell if it’s more than one cell to be pasted) (C3). Paste the data (Edit > Paste).

Center a title over several columns

Type your title (in A1, for instance). Select the cells you want the title to be centered in (A1:F1). Click the **Merge & Center** button on the formatting toolbar.

Typing in Cells

1. Click a cell, or move there by using the arrow keys on the keyboard.
2. Type what you want in that cell.
3. Hit **Enter**. What you typed will be entered into that cell, and the cell selection will move one cell downward. Move the selection by using arrow keys or clicking with mouse.

Making Mistakes (and protecting yourself from them)

Esc: If you change your mind about something you’ve just typed and you haven’t hit **Enter** yet, you can press the **Escape** (Esc) key on your keyboard to restore the cell to its previous condition. If the cell was initially empty, it be restored as empty. If there was existing text which you were replacing, **Escape** will restore the existing text.

Delete: If you’ve already hit **Enter**, or to delete the contents of a cell, press the **Delete** key on your keyboard.

Undo: Use **Undo** (Edit > **Undo**, **Ctrl-Z**, or **Undo toolbar button**) to undo the last change.

Save your file (**File** > **Save**) at good points. If you make mistakes you can’t Undo, close the file (and *not* save changes when prompted) to revert to a good point at which you previously saved.

Keep a backup copy of the file, in case you permanently mess up the file you’re working in. Use **File** > **Save As** to save the file by a different name (e.g. “budget copy” or “2002 version 1”) and leave the original file intact in its last-saved state.

Editing Cells

Edit mode lets you alter the contents of a cell without having to retype everything there.

Double-click a cell, or press **F2** key, to get into Edit mode.

Alternately, you can also use the **Formula Bar** (long white box at the top of the window) for editing. Click the cell you want to change, and then click in the **Formula Bar**.

What's up with display of ##### in cells?

When you get stars displaying in a cell, that means there's more data than can display in the cell, specifically with numeric formats. You have several options: make the column wider, make the font smaller, change the formats (take out unneeded decimal places, e.g.).

Zoom View

You can zoom in and out on a sheet, to make it appear larger or smaller on your screen. This does not affect the way it prints. On the toolbar, you'll see a little box with a percentage in it. It may be 100% or another number; in the graphic on Page 1 here, it's 200%. Click the arrow next to the number to drop down a list of sizes. Pick a bigger number to display a sheet bigger, or a smaller number for a smaller display. **Zoom** is also an option in the **View** menu.

Find

Use **Find** to locate data anywhere on a sheet. (Keyboard shortcut: Ctrl-F)

1. Click **Edit** menu.
2. Click **Find**.
3. Type info to find (e.g., 0414821662)
4. Hit **Enter** or click **Find Next**.

The Find box will stay open. To find the next instance, click **Find Next**. You'll get a message if your info is not found.

Why to keep an open mind!

With Excel, as with many other programs, there are often several ways to do any particular task. A way that works well for one person may not be another person's preferred method. A method you prefer today may pale in comparison to a method you discover on your own down the road. You may be tempted to be frustrated and confused if you know that there are 3 or 4 different ways to get something accomplished. "Show me one way!" you may want to say. Here's the thing: no one but you can know, or discover, the best way for you. So try to keep an open mind, and take a break and walk away (if you can) if you're feeling frustrated with something.

Special Mouse Cursors

As you move your mouse around an Excel window, you can see the mouse cursor change. Watch the cursor, and it will give you clues about what will happen when you click (or click-and-drag) the mouse.

Most often you'll see a **white cross** if you're within the boundaries of a sheet. You'll see a **white arrow** that points up and to the left if you're outside the boundaries of a sheet, positioned in the menu/toolbar area or the scroll bar, for instance.

If the mouse cursor is positioned at the edge of a selected cell or range, it will become that same **white arrow**; click and drag to move the contents of that selected cell or range.

If you're in **Edit mode** or typing in the **Formula Bar**, the mouse cursor will become an **I-beam** (looks like a steel girder on-end). The **I-beam** gives you precise placement of the blinking cursor for editing text.

If you position the mouse cursor at the right edge of a column header, the cursor will change to a **resize tool**, a vertical black line with arrows pointing left and right. Click-and-drag right or left to resize the column (make it wider or narrower). The same is true for adjusting row height: position the mouse cursor at the bottom edge of a row header, and you'll get a **resize tool** that's a horizontal line with arrows pointing up and down. Click-and-drag up or down to make the row shorter or taller.

If you move your mouse to the bottom right corner of a selected cell or range, you'll get a **fill tool**. Click-and-drag downward to fill those cells with sequential or repeating text. (See Fill Cells, on page 2.) You can also delete the contents of a range of cells using the **fill tool**. Select the range, then move to the bottom right corner of the range, where you see the **fill tool**. Click-and-drag upward to empty those cells.

Right-Click Menu

As always, look in the right-click menu for menu command shortcuts: copy, paste, format, etc. Right-click a cell to get commands for that cell. With a range, select the range and then move your mouse inside the range and right-click.

Freeze Panes/Lock Titles

When you have a large spreadsheet, you can keep the top and/or left edge of the sheet in view as you move down/right. Excel refers to this feature as **Freeze Panes**; QuattroPro and Lotus 1-2-3 call it **Locked Titles**. You can use it to keep any part of a sheet in view while also viewing another part of the sheet within the same window.

To keep the titles in view:

1. Click just below (and/or to the right) of the titles you want to keep visible
2. Click **Window** (menu) > **Freeze Panes**.

To undo the setting, click **Window** > **Unfreeze Panes**.

Formatting Cells

Select the cell(s) first! (whether it's one cell, or a range of cells, or the whole page)

Using Toolbar Buttons:

font (Arial, Times Roman)
font size (10, 12, 14)
bold/italic/underline
alignment (left, right, center)

Using Format Menu

Use menu **Format > Cells**, either in the Format menu or the right-click menu:

Numbers: use **Number** tab to display numbers different ways.

General is default.

Currency: (0 decimal points [*2 is default*])

Date: (long [02/23/00] or short [02/23])

Percentage: (0 decimal points [*2 is default*])

Cell Lines: Use **Border** tab to set/clear lines around cells

Fill: Use **Pattern** tab to set background color for cells

Alignment: Use **Alignment** tab

Horizontal alignment: text in cell(s) is left, right, centered, justified (more or less filling the space), and can be centered across a selection of cells. Left-aligned text can be indented by an amount you specify.

Vertical alignment: text is at the top/bottom/center of cell(s) or justified (more or less filling the space)

Wrap text: when text is too long to fit in a cell, it will continue to the right if the adjacent cell is empty, or be clipped at the cell's edge if that cell to the right isn't empty. Text wrapping allows overflow text to flow down within the cell to the next line. To force text to break a certain way in a cell, press **Alt-Enter** at the end of the desired line, and text you type after that will appear on the next line.

Shrink to Fit: If a small amount of data isn't visible in a cell, you can reduce the appearance of the font size of the data so that you don't have to resize the column.

Merge Cells: select a range of cells, and then select this to merge them, or have the program treat them as one cell.

Font: Use **Font** tab. Here you can set the font as well as the font size, color, style, and certain effects.

As with other dialog boxes, make choices on the various tabs, and then click OK to set them. Click Cancel to leave the Format Cells dialog box without making changes. If you make a change and don't like the result, **Undo (Edit > Undo)**.

Printing

By default, when you print your Excel sheet, all of the cells containing data will print. If that takes 4 pages (say, 2 pages down and 2 across) to do, 4 pages will be printed. Multiple pages will tile: for example, if you have a sheet with data in cells A1 to Z100, you might this output:

Page 1: A1 to L50

1	3
2	4

Page 3: M1 to Z50

Page 2: A51 to L100

Page 4: M51 to Z100

Print Preview

Use **Print Preview** to have a look at how your data will print before you send it to the printer. (Click **File > Print Preview**, or icon of **magnifying glass with document** on Standard Toolbar.) Inside the Print Preview, window, you'll see the first page to print; click **Next** to view the next page to print. If **Next** is grayed out, that means your material will print on one page. Click **Close** to close the preview window and get back into your document without printing. When you return from Print Preview, dotted lines will mark the page breaks in your sheet.

Fitting on a page, and Print Area

To get things to fit on fewer pages, try any of the following: make the fonts smaller; make the columns narrower (**Format > Column > Width (or Autofit)**); make the margins smaller (**File > Page Setup > Margins**); or scale the output (**File > Page Setup > Page > Scaling**).

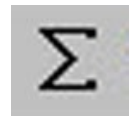
To specify which cells to print, highlight those cells and click **File > Print Area > Set Print Area**. To remove a Print Area that has been set, click **File > Print Area > Clear Print Area**.

Formulas

Using AutoSum Button

Example: Add a range of numbers (B3:B15) in the cell below the range (B16)

1. Select the cell where the formula is to go (B16).
2. Click the **AutoSum** Button on the toolbar. Excel will make a suggestion about what cells to select for the sum. If you have continuous data in your desired range (B3:B15), the range will be suggested correctly [you'll see the formula =SUM(**B3:B15**) appear in the cell, with a blinking cursor before the closing parenthesis and a selection area (AKA "marching ants") around the suggested cell range].
3. Hit **Enter** to accept the suggestion.



If you want to change the suggestion (perhaps you want to sum cells to the left, or only part of the cells above, or cells beyond the scope of what the AutoSum suggests), *before* hitting **Enter**, click-and-drag to select the desired range of cells to sum and then hit **Enter**.

You can edit the sum formula after it's created by using **F2** or by double-clicking the cell (see below).

The Formula “Switch”

The trick with typing any formula is to type an equals sign (=) first, then type the formula (and/or click specific cells to use their contents in the formula) and hit **Enter** at the end.

Using the colored selection boxes in editing formulas

When editing a formula (by selecting the cell and pressing the **F2** key or by double-clicking the cell), any cell references (cell addresses, e.g., A1, C3, etc.) contained in the formula will be displayed in one or more colors, which correspond to colored boxes around those cells. In the case of a simple SUM formula, the cell references will be blue, and a blue box will appear around those cells. In the example above, if you double-click B16, you’ll see the formula =SUM(B3:B15) in the B16 cell, and you’ll see a blue box around the B3:B15 cell range.

–Double-click the formula cell to “edit” the formula

–Click-and-drag the edge of the box to move the selection to other cells.

–Click-and-drag the bottom right corner of the box (see “fill tool” mouse cursor appear before you click) to change the size of the box.

If the box goes to high or not high enough (say you want it to go to B1 or B6, but you want the bottom – B15 – to be the same) do this: position your mouse on any edge of the blue box, click-and-drag to position the top of the box where desired, then position your mouse at the bottom right corner of the box (see the “fill tool” mouse cursor) and click-and-drag to make the box surround just the cells you want in the formula.

–Hit **Enter** when you have the colored selection box the way you want it.

If you inadvertently click another cell in the sheet with the mouse when you’re editing formulas, the address of that cell will be inserted into the formula. If you notice that this has happened before you press **Enter**, press the **Esc** (Escape) key to fix it. If you notice it immediately after hitting **Enter**, click **Edit > Undo** to restore the formula to its previous state. If you notice it too late to use **Undo**, double-click the cell that contains the formula, and then re-define the formula.

Handling Sums Within Sums

In some spreadsheets, you might have sums within sums. Say you have a column of individual dollar amounts totaled at the end of each month within that same column. At the end of the year, you’ll want to pull an annual total of those figures, but a simple sum formula will add the whole column, including the individual numbers *and* the monthly totals, giving you a figure that’s twice the amount it should be. To fix this, in the formula for the annual total, either multiply by .5 or divide by 2.

So the formula would look something like this: =SUM(A1:A100)*.5 or =SUM(A1:A100)/2

Freestanding Calculations

You can add several numbers (or perform other mathematical functions) within a cell. The total will display in the cell, but the individual figures will display in the formula bar.

The trick with typing any formula is to type an equals sign (=) first.

Example: you have payments of \$150, \$235, \$500, \$32, and \$687

Select the cell where you want the formula and type: **=150+235+500+32+687**

Hit Enter. **1604** will display in the cell (formatting as currency gives **\$1604.00**; specify **0** decimal places to display **\$1604**)

Dependent Calculations

When referencing other cells in a formula, you can type the cell address (A1) or you can click the A1 cell when you're ready for it, and let Excel drop the address into the formula. The cell where you're placing the formula pulls data from whatever cells you specify. If the data in the source cells changes, the data in the formula cell will change accordingly.

Example: Commission (cell K5) equals 15% of Guarantee (cell D5)

Select the cell **K5** and type: **=.15*D5** (either type **D5**, or click the **D5** cell)

Hit **Enter**. If you later change the amount in the D5, the amount in K5 will also change.

Example: Commission (K5) equals Commission percentage (J5) times Guarantee (D5)

Click the cell **K5** and type: **=J5*D5** (type the cell references, or click those cells)

Hit **Enter**.

Note: If you copy and paste a formula, the cell reference for the source cell(s) will change.

For example, if, in Row 15, you're totaling amounts in the cells above for several columns, you can enter the formula in A15 for the sum of Column A [=SUM(A1:A14)], and then copy the formula and paste it into B15, C15, D15, etc, and the formula will change (A1:A14) to (B1:B14), (C1:C14), (D1:D14) etc., automatically.

To prevent a source cell reference from changing when copied and pasted, use an **absolute reference**: enter the cell reference manually like this: **\$A\$14**.

Linking Cells

When you link cells, you copy information from one cell and link it dynamically to another cell. When the contents of the source cell change, the linked cell will change automatically. This is helpful when information in one place is applied in another place, and you want changes to update automatically without having to type the information in both places.

Select the source cell(s). **Copy**.

Select the destination cell (or upper left in a range). **Edit > Paste Special > Paste Link**.

You can use a simple formula to link cells within a sheet. If you want C5 to contain the information in A1: click C5, type and equals sign (=) and click A1 (or type A1) then hit Enter. If A1 changes, C5 will also change.

Hiding Rows/Columns

If you want to prevent specific rows or columns in a sheet from being displayed, you can hide them. First, select the rows or columns (click the header button for one row/column, or click-and-drag from the first desired header button to the last one), then click **Format > Row (or Column) > Hide**.

“Hide” Example: Hide columns C, D, and E:

Click-and-drag from the **C** header button to the **E** header button

Then click **Format > Column > Hide**

(alternately, right-click inside the selection and click **Hide**).

When rows/columns are hidden, you’ll see a gap in the sequence of header labels. In the example above, the visible column headers would appear like this: A, B, F, G, H, etc., because C, D, and E are hidden.

To make hidden rows/columns display, you need to **Unhide** them. Since you can’t click on hidden rows/columns to select them, you need to click-and-drag from the beginning of the “gap” to the end.

“Unhide” Example: Unhide columns C, D, and E:

Click-and-drag from the **B** header button to the **F** header button

Click **Format > Column > Unhide**

(alternately, right-click inside the selection and click **Unhide**).

Filter

Use **Filter** to show rows containing data of a certain kind, and hide the other rows.

Examples: top 10 invoice amounts
specific PO # of facility
orders for a specific dates or a date range

1. Click **Data** menu
2. Click **Filter > Autofilter**
Small buttons will appear on your column headings, each with a little triangle
3. Click the button for a column, then click the desired item from the menu
(e.g., “top 10,” or other item)

Note: If your sheet contains information too complex for the autofilter to work, *first* highlight the block of cells in your sheet you want to filter, and then apply the autofilter.

To show all data in the sheet again,

Click the button again at the column header, scroll up to the top of the list, click **All**.
or, click **Data > Filter > Show All**.

To remove the autofilter, repeat 1 and 2 above.

Sort

Use **Sort** to sort data by a certain criteria, e.g., in order by Name or Date. The hardest thing here is getting started, and getting a feel for how the Sort command works. Whether it's easy or hard depends greatly on how simple or complex your cells are, where the selected cell/s are located.

1. Sometimes it's good to try beginning with Step 2, and see if you get the results you're looking for.

If that doesn't work then start here: highlight all the data on the sheet

E.g., if your data runs from A3 to F50,

Mouse method: Click A3 and drag to F50

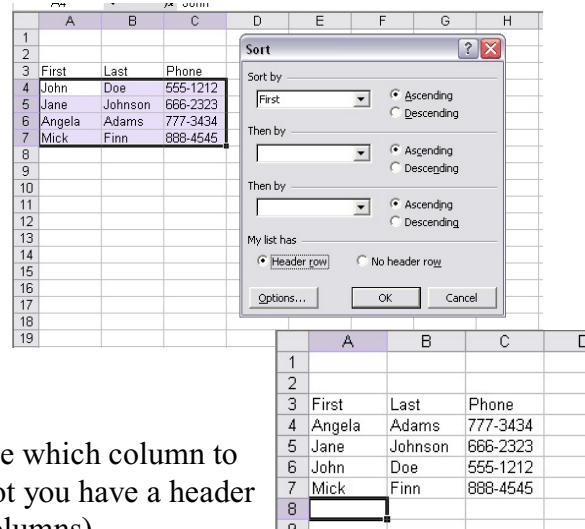
Keyboard method: Click A3 and release, press and hold Shift, arrow down and over to F50.

After highlighting the data, proceed to the next step (or you can start with the step to see if the block you desire highlights automatically).

2. Click the **Data** menu, and then click **Sort**.
3. In the "Sort by" box (it's a "pick-from" list), choose which column to sort by (e.g. First Name), and specify whether or not you have a header row (basically, titles across the tops of your data columns).
4. Click **OK**.

Caution: You may wish to make a backup copy of your sheet, so that if you make a mistake in the sorting process and irreparably alter the data in your sheet, you'll still have the original data.

Don't select one column of data (unless you only have one column of data) and do a sort, or else the cells in that column will be out of sync with the other rows of data.



Charts – A Brief Summary

After you have your data in a sheet, use the **Chart Wizard** to create visuals for your info.

Click the **Chart Wizard** button on the **Standard Toolbar** (or click **Insert > Chart**). If you have a complicated sheet, you may wish to highlight the part of the sheet that contains the information you want in your chart.

Step 1: Choose a chart type. Pie charts are good for representing portions of a whole. Column, Bar and Line charts are good for comparing values over time.

Step 2: Chart Source Data. The wizard will make a guess about what information in the sheet to include in the chart (or it will use a range of cells you selected before starting the wizard).

Step 3: Chart Options. Give your chart a title, apply titles to your X and Y axes, choose whether or not to display gridlines or include a legend, choose other options.

Step 4: Chart Location. Your chart can appear as a free-floating object in the source sheet (or in another sheet in the workbook), or it can be placed on its own sheet in the workbook.

When you click Finish, the chart will be created. The chart is dynamic; if the source data changes, the chart will reflect the change.

If you don't like something about a chart, right-click some aspect of it, and look for pertinent commands in the pop-up menu (e.g., "Format Plot Area, or "Format Gridlines" or "Chart Options.") If all else fails, you can always delete the chart and start over with it. Look for more detailed steps in a book on Excel, or in the Help menu, or learn by experimenting.

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