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Higham and Rushden

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Introduction to Excel

Revised version

Screenshots are taken from Excel 2013. Earlier and later versions may look different.

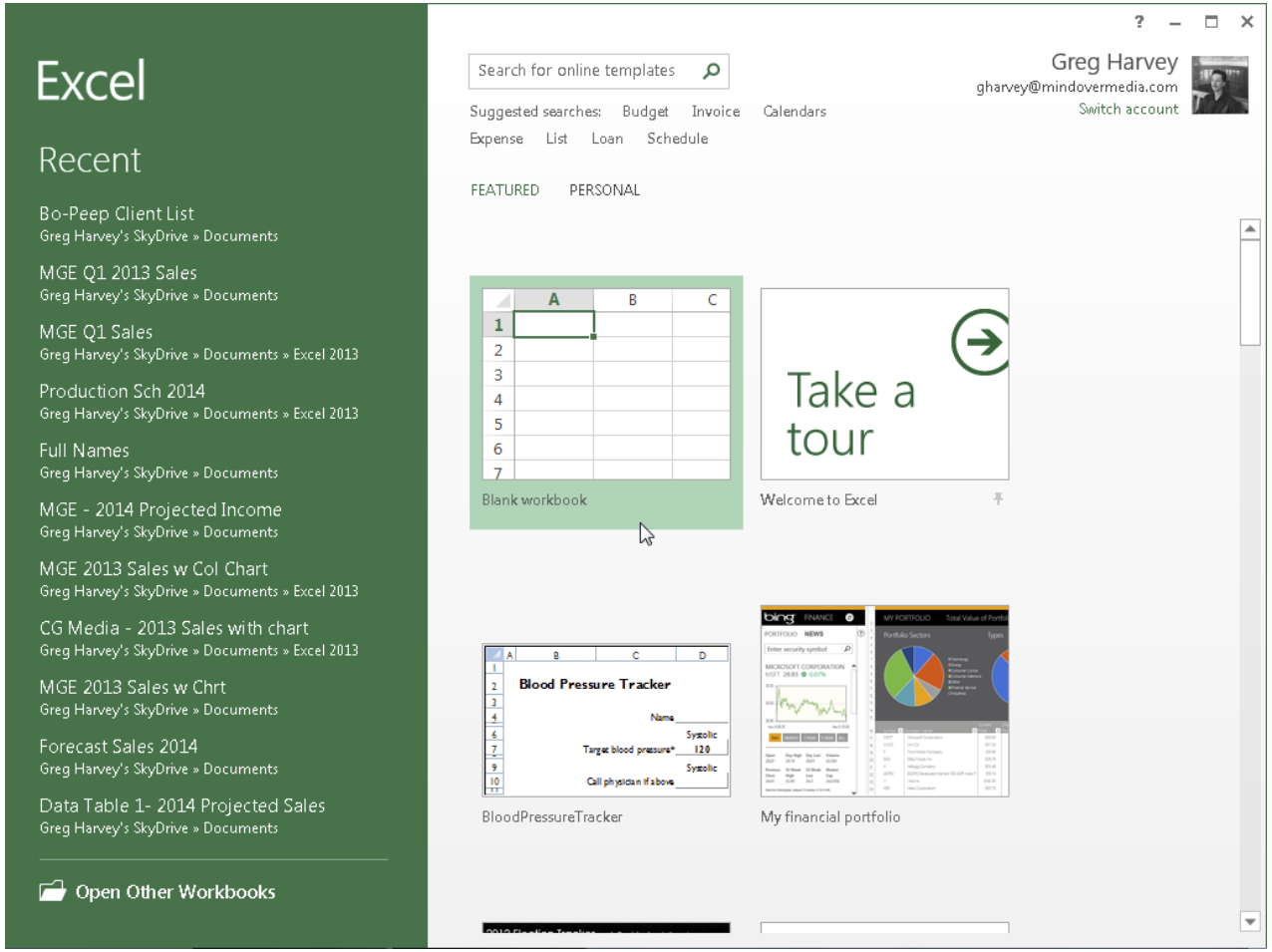
In this presentation, we will have a quick look at the uses for Excel, as well as taking a tour of how it appears on your screen and looking at the most important parts of the screen.

Excel's forte is performing numerical calculations, but Excel is also very useful for non-numeric applications.
Here are just a few of the uses for Excel:

- Number crunching: Create budgets, tabulate expenses, analyse survey results, and perform just about any type of financial analysis you can think of.
- Creating charts: Create a wide variety of highly customizable charts.
- Organizing lists: Use the row-and-column layout to store lists efficiently.
- Text manipulation: Clean up and standardize text-based data.
- Accessing other data: Import data from a wide variety of sources.
- Creating graphical dashboards: Summarize a large amount of business information in a concise format.
- Creating graphics and diagrams: Use Shapes and SmartArt to create professional looking diagrams.
- Automating complex tasks: Perform a tedious task with a single mouse click with Excel's macro capabilities.

Start Excel

Click on the Excel icon in All Apps, (some versions can be found under Microsoft Office). Alternatively click on any shortcut you may have on the taskbar, start screen or desktop.



The Excel window has a left-hand panel listing recently-opened workbooks which you can select to continue working with. The right-hand area of the screen has large icons, starting with “Blank workbook” and “Welcome to Excel”.

Then follows a series of templates for different accounting and charting functions.
If you need a different template you can also look for one online using the search box at the top of the screen, or create one yourself starting with a blank workbook.

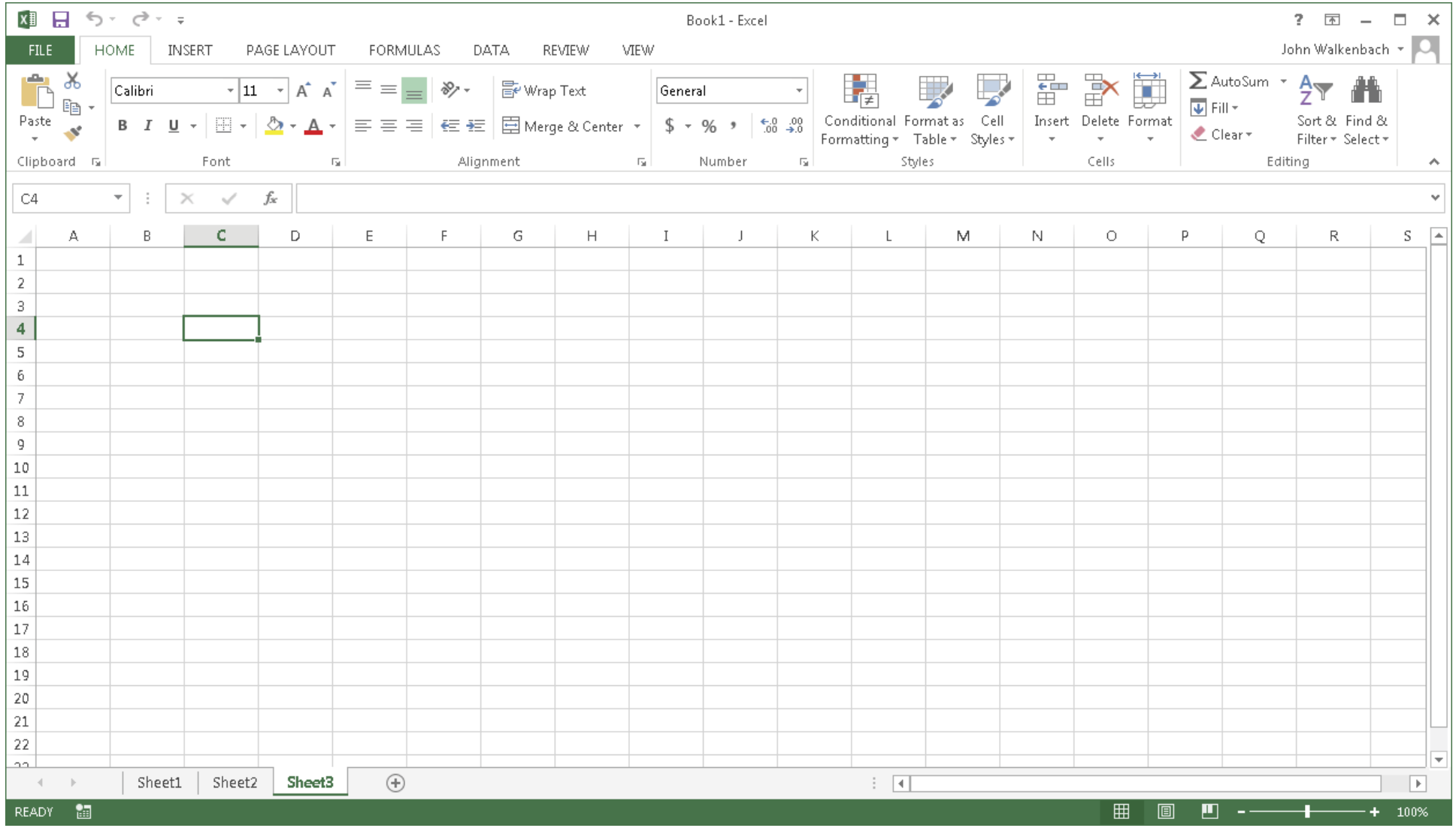
Whenever you acquire a newer version of Excel it is well worth opening the “Welcome to Excel” spreadsheet to see what new features are included.

The work you do in Excel is performed in a **workbook** file. You can have as many workbooks open as you need, and each one appears in its own window. By default, Excel workbooks use an .xlsx file extension, but Excel also happily works with its older .xls file format as well as the Open Document Spreadsheet (.ods) files and Comma Separated Values (.csv) files. You may occasionally also encounter Excel template files (.xlt, .xltx, .xltm) Excel add-in files (.xla and .xlam) and specialised Excel files such as .xlsb and .xlsm. **File suffixes ending with m are macro-enabled, meaning that built into them are routines which can run automatically when the file is opened. If you ever receive this type of file you may get a warning and it is as well to heed this warning, particularly if you receive it from someone you do not know well, as the routine can open other programs on your computer and can therefore infect it with malware.**

Each workbook contains one or more **worksheets**, and each worksheet is made up of individual cells. Each cell can contain a value (numerical, currency, date, time, fraction, etc), a formula, or text. A worksheet also has an invisible draw layer, which holds charts, images, and diagrams. Each worksheet in a workbook is accessible by clicking the tab at the bottom of the workbook window. In addition, a workbook can store chart sheets; a chart sheet displays a single chart and is also accessible by clicking a tab.

Excel can seem intimidating to newcomers because of all the different elements that appear within Excel's window. It is well worth persevering, however, as Excel is an incredibly powerful and versatile program capable of a multitude of tasks. Bill Gates, founder of Microsoft, once described Excel as the program of which he was proudest. After you become familiar with the various parts it all starts to make sense, and you'll feel right at home.

A normal Excel worksheet looks like this:

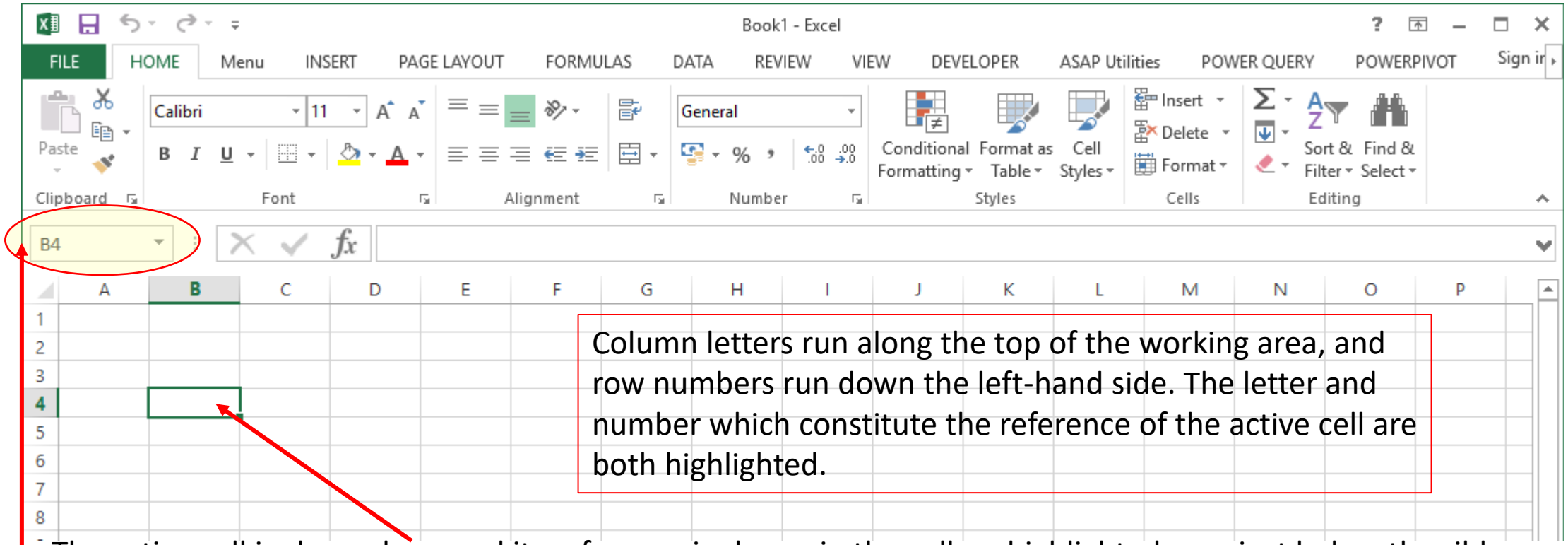


In the next few slides we'll identify various elements and give a brief explanation of their functions.

Every worksheet consists of rows (numbered 1 to 1,048,576) and columns (labelled A to XFD). Column labelling works like this: After column Z comes column AA, which is followed by AB, AC, and so on. After column AZ comes BA, BB, and so on. After column ZZ is AAA, AAB, and so on.

The intersection of a row and a column is a single cell, and each cell has a unique address made up of its column letter and row number. For example, the address of the upper-left cell is A1. The address of the cell at the lower right of a worksheet is XFD1048576.

At any given time, only one cell of the 17 billion (17,179,869,184 to be exact, although earlier editions of Excel had fewer cells on each worksheet) on the sheet is the active cell. The active cell is the cell that accepts keyboard and mouse input, and whose contents can be edited. You can identify the active cell by its darker border.



Column letters run along the top of the working area, and row numbers run down the left-hand side. The letter and number which constitute the reference of the active cell are both highlighted.

The active cell is shown here and its reference is shown in the yellow-highlighted area just below the ribbon.

You can move around the working area using the vertical and horizontal scrollbars.

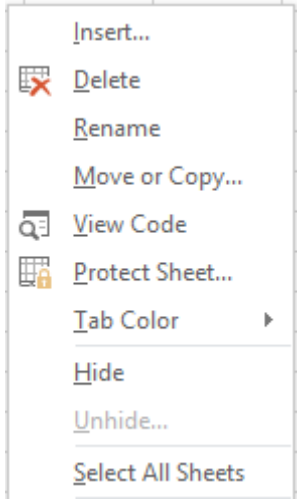
The *worksheets* contained in the *workbook* are shown by these tabs.

Add a new worksheet by clicking the plus sign.

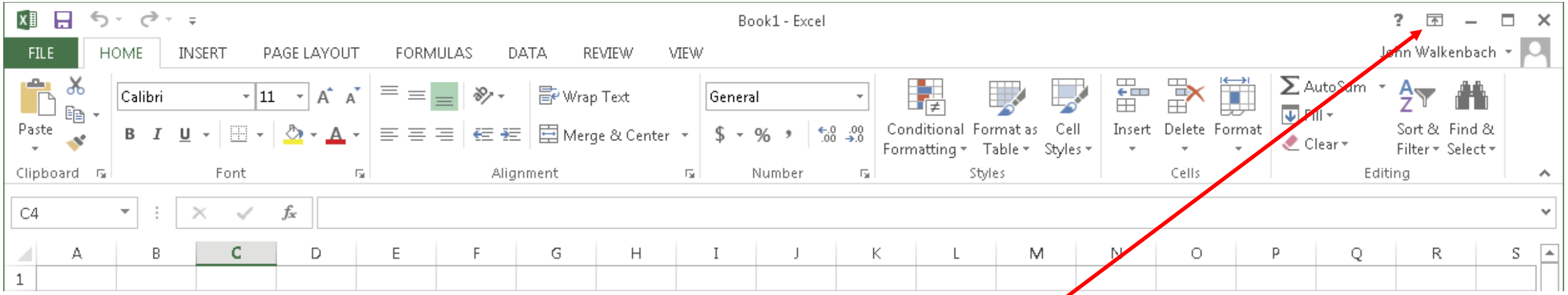
The status bar runs along the bottom of the screen. Right-click it for a list of options, including showing whether Caps Lock and Number Lock are on.

The zoom slider lets you zoom in and out. If it is not visible you can enable it by right-clicking the status bar.

Right-click any worksheet tab for options including renaming, hiding, and deleting the sheet, as well as recolouring the tab.



In Office 2007, Microsoft made a dramatic change to the user interface. Traditional menus and toolbars were replaced with the Ribbon, a collection of icons at the top of the screen.
The words above the icons are known as tabs: the Home tab, the Insert tab, and so on. Most users seem now to find that the Ribbon is easier to use than the old menu system; it can also be customized to make it even easier to use.



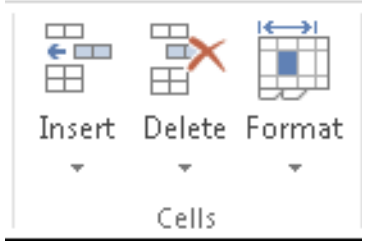
The Ribbon can either be hidden or visible (it's your choice). To toggle the Ribbon's visibility, press Ctrl+F1 (or double-click a tab at the top). If the Ribbon is hidden, it temporarily appears when you click a tab and hides itself when you click in the worksheet. The title bar has a control named Ribbon Display Options (next to the Help button). Click the control and choose one of three Ribbon options: Auto-hide, Show Tabs, or Show Tabs and Commands.

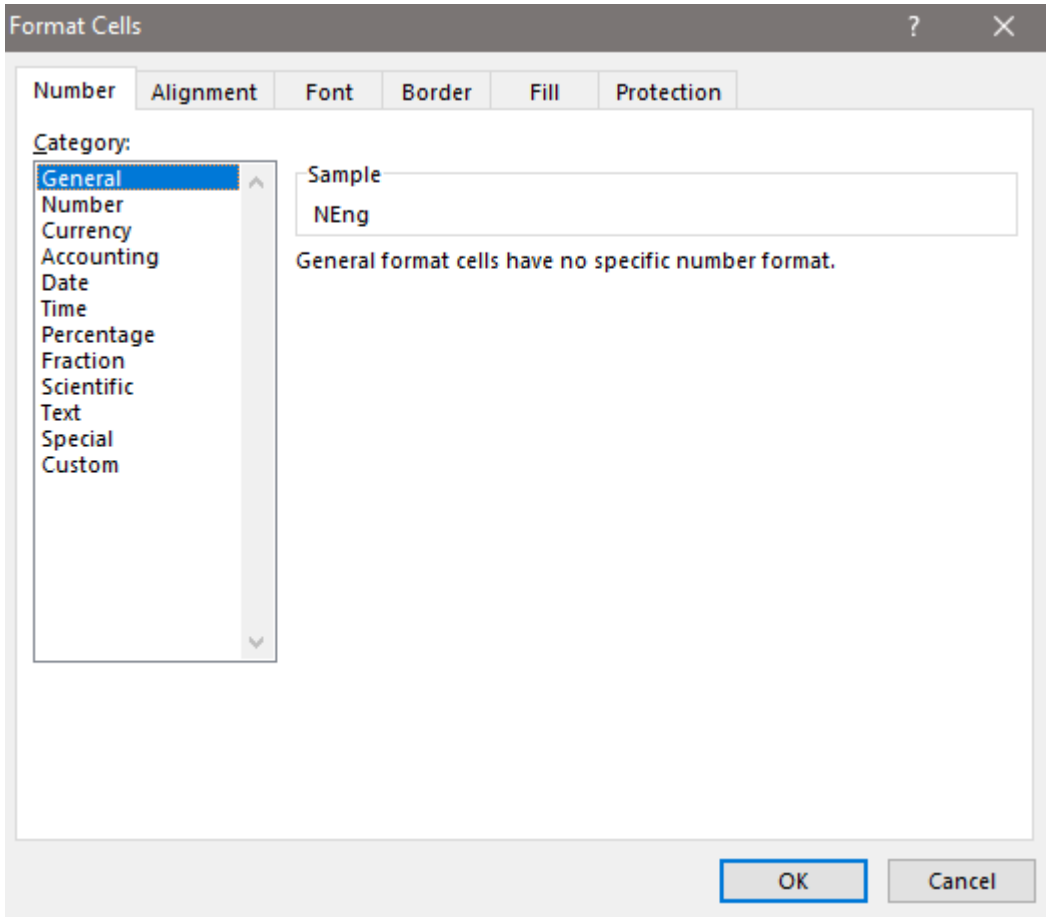
The commands available in the Ribbon vary, depending upon which tab is selected. The Ribbon is arranged into groups of related commands. Here's a quick overview of Excel's tabs:

- Home: You'll probably spend most of your time with the Home tab selected. This tab contains the basic Clipboard commands, formatting commands, style commands, commands to insert and delete rows or columns, plus an assortment of worksheet editing commands.
- Insert: Select this tab when you need to insert something in a worksheet — a table, a diagram, a chart, a symbol, and so on.
- Page Layout: This tab contains commands that affect the overall appearance of your worksheet, including some settings that deal with printing.
- Formulas: Use this tab to insert a formula, name a cell or a range, access the formula auditing tools, or control how Excel performs calculations.
- Data: Excel's data-related commands are on this tab, including data validation commands.
- Review: This tab contains tools to check spelling, translate words, add comments, or protect sheets.
- View: The View tab contains commands that control various aspects of how a sheet is viewed. Some commands on this tab are also available in the status bar.
- Developer: This tab isn't visible by default. It contains commands that are useful for programmers. To display the Developer tab, choose File ➪ Options and then select Customize Ribbon. In the Customize the Ribbon section on the right, make sure Main Tabs is selected in the drop-down control, and place a check mark next to Developer.
- Add-Ins: This tab is visible only if you loaded an older workbook or add-in that customizes the menu or toolbars. Because menus and toolbars are no longer available in Excel 2013, these user interface customizations appear on the Add-Ins tab.

This list contains the standard Ribbon tabs. Excel may display additional Ribbon tabs, resulting from add-ins or macros. For yet more information about the Ribbon, see the separate Ribbon presentations.

It is worth looking at formatting, available from the “Home” tab on the ribbon. Apart from the usual choice of fonts, font sizes and colours, left- or right-alignment or centring text, etc., there is a range of ways in which cells can be formatted. Click on Format Cells or right-click and select “format cell” to see this menu:





The “Number” tab is particularly important, as Excel is great for working with numbers.
The cell format determines whether, for example, the number is a currency or just a number, and how many decimal places to display. When performing calculations Excel will always use the core cell value rather than the value displayed (e.g. if you have formatted the cell to display no decimal places).
The following slide shows some of the different ways Excel can display numbers.

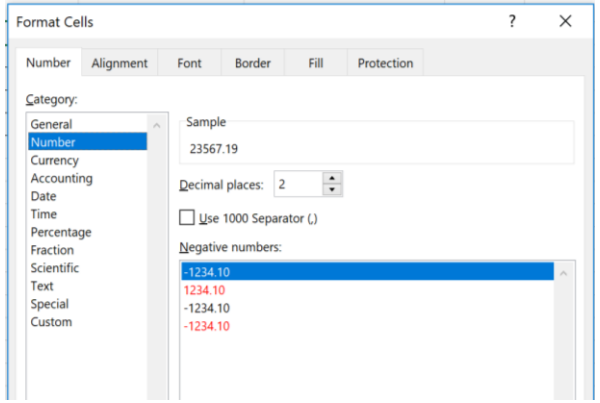
Formatting numbers in Excel

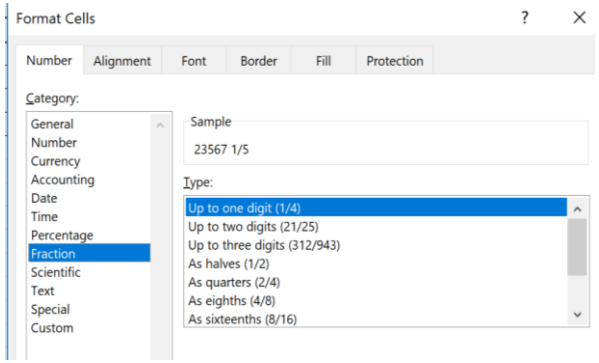
Let's start with small numbers: 1.25 for example.
The top row below contains 1.25 in every case, while the row below shows the way in which that cell has been formatted.

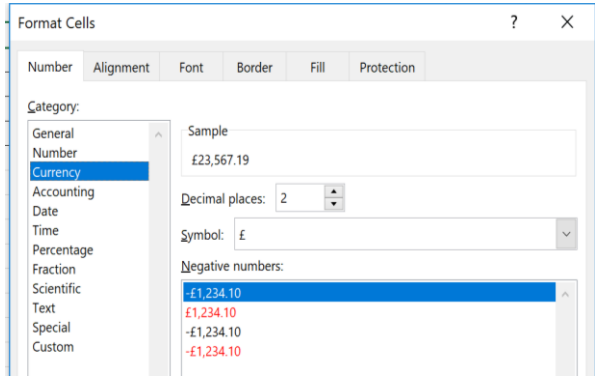
1.25	1.25	1.3	1	1 1/4	1 1/4	£1.25	125.00%	1.25
General format	Number format, 2 decimal places	Number format, 1 decimal place	Number format, no decimal places	Fraction format, up to 1 digit	Fraction format, up to 2 digits	Currency or Accounting format, £ symbol	Percentage format, 2 decimal places	Text format. Note left alignment. **Will not work in calculations!**

Larger numbers behave similarly: here we are using 23567.19

23567.19	23567.19	23567.2	23567	23,567.19	¥23,567.19	23567 15/79	2356719%	23567.19
General format	Number format, 2 decimal places	Number format, 1 decimal place	Number format, no decimal places	Number format, 2 decimal places with 1000 separator	Currency or Accounting format, Yen symbol	Fraction format, up to 2 digits	Percentage format, 0 decimal places	Text format. Note left alignment. **Will not work in calculations!**





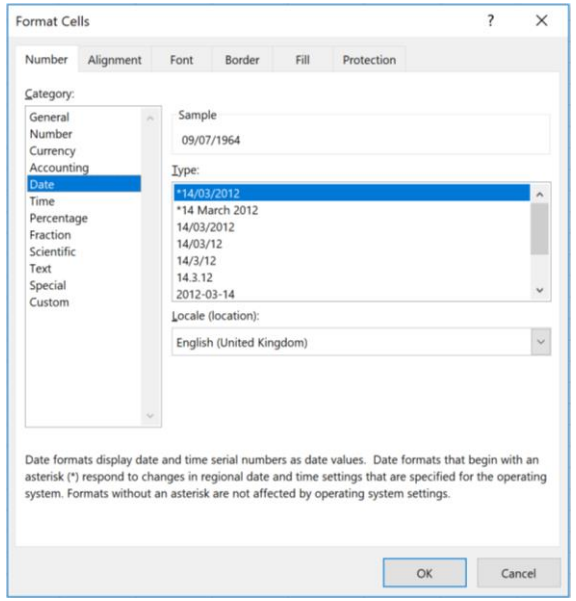


Dates in Excel

Excel stores dates as elapsed days since 1st January 1900.

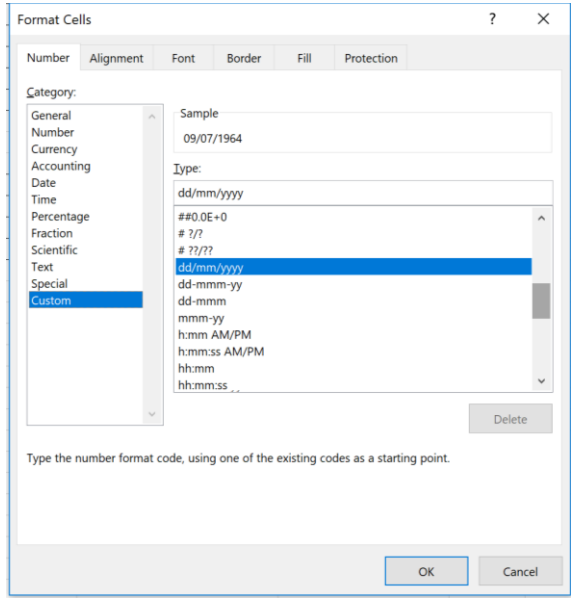
1	01/01/1900
100	09/04/1900
1000	26/09/1902
10000	18/05/1927
43101	01/01/2018

The diagram on the left shows elapsed days since 1/1/1900. Each row contains the same data, formatted as a number on the left and as a date on the right.



We are not tied to any one particular method of expressing dates, however. Selecting “Format Cells”, then the “Number” tab allows us to use our preferred format using dots or slashes or spaces as separators, expressing the month as a number, as a word or as an abbreviated word, and so on.

23567.19	09/07/1964	
23567.19	09 July 1964	
23567.19	9.7.64	
23567.19	July 9, 1964	(change location to USA)



Yet more options such as those below can be found in the “Custom” section.

23567.19	09-Jul	dd-mmm
23567.19	Jul-64	mmm-yy
23567.19	09-Jul-64	dd-mmm-yy

Should you by any chance want to perform calculations to find the difference between 2 dates, a useful trick to remember is that the current date can always be inserted in a blank cell using Ctrl and ; (semi-colon).

25/12/2018
17/11/2018
38

If you enter next Christmas in cell A1 and the current date in cell A2, the formula =A1-A2 will show the number of days until Christmas. Here the formula is in cell A3. Note also that you may need to format the destination cell as a number.

Bill wants to know how old he will be on New Year's Day 2020. He types 01/01/2020 into one cell and enters his date of birth in the cell below. The formula =*cell1-cell2* in the next cell down shows that he will be 21,739 days old.

01/01/2020
25/06/1960
21739

There is a good chance, however, that Bill would rather know what this meant in years, months and days rather than a horribly big number of days. In that case he will need to use a different function called DATEDIF (difference between dates). This subtracts one date from the other but needs the earlier date first. It also can only return years OR months OR days, so needs to be slightly more complicated. To achieve the difference expressed in years, months AND days, the DATEDIF function needs to used 3 times in the same formula, to calculate each of the 3 values and add some text to clarify their meanings. The individual functions are shown in the right-hand column below with the resulting values in the left-hand column.

01/01/2020	
25/06/1960	
59	=DATEDIF(A2,A1, "y")
6	=DATEDIF(A2,A1, "ym")
7	=DATEDIF(A2,A1, "md")
59 years, 6 months, 7 days	=DATEDIF(A2,A1, "y") &" years, "&DATEDIF(A2,A1, "ym") &" months, " &DATEDIF(A2,A1, "md") &" days"

So what about the part of the number after the decimal point?

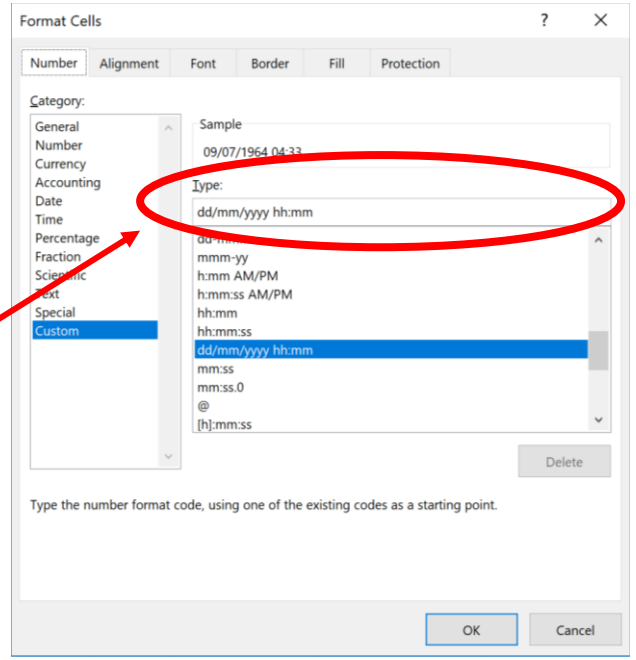
That is Excel's way of storing times: 0.5 is half a day, or 12:00 hours. 0.75 is ¾ of a day, i.e. 18:00 hours.
For real precision,
each hour is 1/24 of a day and is represented as the decimal value: 0.041666…
a minute is 1/60 of an hour, or 1/1440 of a day in total, which calculates as 0.00069444…
a second is 1/60 of a minute, or 1/86400 of a day in total, which works out as 0.00001157407…

Let's go back to our previous number 23567.19 which has a decimal part. Up until now we have only shown the part before the decimal point, but presumably the .19 translates as a time on 9th July 1964. How, then, do we show this?

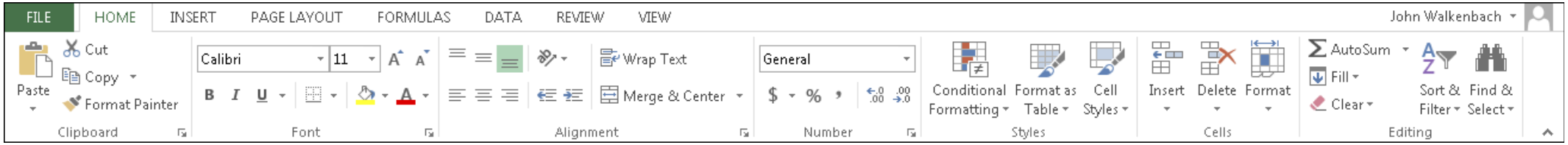
One of the options in the "Custom" category is "dd/mm/yyyy hh:mm" which produces the first example below.

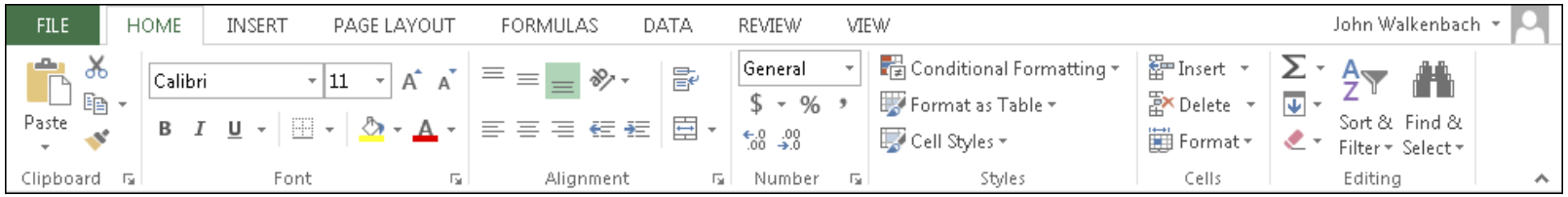
23567.19	09/07/1964 04:33	dd/mm/yyyy hh:mm
23567.19	09-Jul-64 04:33	dd-mmm-yy hh:mm
23567.19	09-July 04:33	dd-mmmm hh:mm
23567.19	09 July 1964 04:33	dd mmmm yyyy hh:mm
23567.19	09-Jul-1964 04:33:36	dd-mmm-yyyy hh:mm:ss

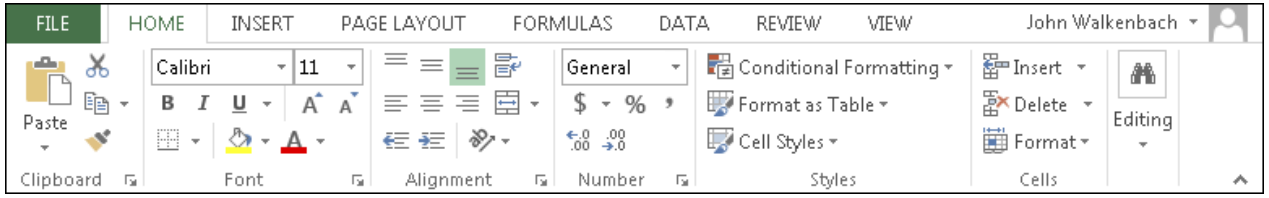
If you prefer a different format you can create your own as shown in the other examples above: the right-hand column shows what date needs to be typed into the "Type:" field shown to the right.
The last example demonstrates that even seconds can be included.



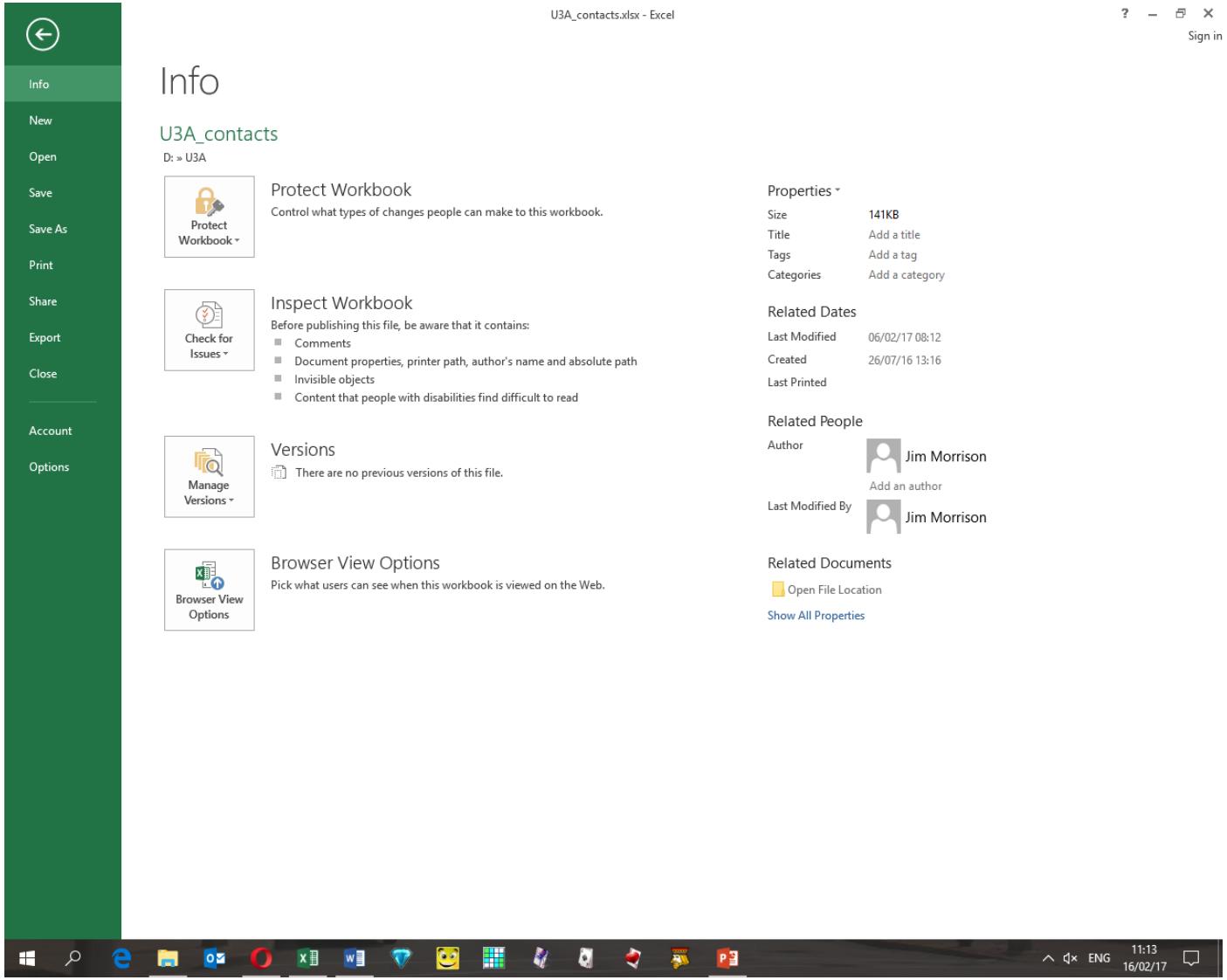
The appearance of the commands on the Ribbon also varies, depending on the width of the Excel window. When the Excel window is too narrow to display everything, the commands adapt; some of them might seem to be missing, but the commands are still available.







Clicking on “File” (which looks very similar to the ribbon tabs but is actually very different) opens a screen like this. Click on the left-pointing arrow at top left to return to your spreadsheet.



“Info” gives you information about the workbook (strangely enough!), and there are options for closing, saving, printing and sharing the workbook, exporting data from it and opening another workbook.

If you choose to continue, you will start to look at sorting and filtering data to make it easier to work with. We also look at more functions and formulas, Excel's way of performing calculations and manipulating data.

Title	GivenName	Surname			
Ms.	Summer	Brown	Ms. Summer Brown	Ms. Summer Brown	Ms Summer Brown
Mrs.	Erin	Hamilton	Mrs. Erin Hamilton	Mrs. Erin Hamilton	Mrs Erin Hamilton
Ms.	Jennifer	Hobbs	Ms. Jennifer Hobbs	Ms. Jennifer Hobbs	Ms Jennifer Hobbs
Mr.	Edward	Carter	Mr. Edward Carter	Mr. Edward Carter	Mr Edward Carter
Mr.	Edward	Murphy	Mr. Edward Murphy	Mr. Edward Murphy	Mr Edward Murphy
Mr.	Kian	Lowe	Mr. Kian Lowe	Mr. Kian Lowe	Mr Kian Lowe
Mr.	Aaron	Richardson	Mr. Aaron Richardson	Mr. Aaron Richardson	Mr Aaron Richardson
Mr.	Samuel	Short	Mr. Samuel Short	Mr. Samuel Short	Mr Samuel Short
Mr.	Alfie	Chamberlain	Mr. Alfie Chamberlain	Mr. Alfie Chamberlain	Mr Alfie Chamberlain
Mr.	Adam	Kelly	Mr. Adam Kelly	Mr. Adam Kelly	Mr Adam Kelly
Mrs.	Eva	Rees	Mrs. Eva Rees	Mrs. Eva Rees	Mrs Eva Rees
Mrs.	Lucy	Kelly	Mrs. Lucy Kelly	Mrs. Lucy Kelly	Mrs Lucy Kelly
Mrs.	Eva	Marsden	Mrs. Eva Marsden	Mrs. Eva Marsden	Mrs Eva Marsden
Mr.	Joel	Noble	Mr. Joel Noble	Mr. Joel Noble	Mr Joel Noble
Mrs.	Millie	Hill	Mrs. Millie Hill	Mrs. Millie Hill	Mrs Millie Hill
Mr.	Charlie	Begum	Mr. Charlie Begum	Mr. Charlie Begum	Mr Charlie Begum
Ms.	Rachel	Bond	Ms. Rachel Bond	Ms. Rachel Bond	Ms Rachel Bond
Mr.	Lucas	McKenzie	Mr. Lucas McKenzie	Mr. Lucas McKenzie	Mr Lucas McKenzie
Ms.	Erin	Cooper	Ms. Erin Cooper	Ms. Erin Cooper	Ms Erin Cooper
Mr.	Ethan	Wright	Mr. Ethan Wright	Mr. Ethan Wright	Mr Ethan Wright
Mr.	Jude	Taylor	Mr. Jude Taylor	Mr. Jude Taylor	Mr Jude Taylor
Mr.	Ethan	Thorpe	Mr. Ethan Thorpe	Mr. Ethan Thorpe	Mr Ethan Thorpe
Mrs.	Freya	O'Brien	Mrs. Freya O'Brien	Mrs. Freya O'Brien	Mrs Freya O'Brien
Ms.	Naomi	Walton	Ms. Naomi Walton	Ms. Naomi Walton	Ms Naomi Walton

A couple of easy steps is all it takes to convert data in 3 cells (Title, name and surname) to a concise full name and title, and remove the unnecessary full stop after the title.

Look interesting? Keep reading!

Here is another spreadsheet showing the use of images, hyperlinks and text formatting.

populations.xlsx - Excel

State/Territory/Division/Region	Rank	2013 pop	Rank	2010 pop	Rank	2000 pop	Rank	2000-2010 change	Geographical
Massachusetts	14	6,692,824	14	6,547,629	13	6,349,097	43	3.10%	NEng
Connecticut	29	3,596,080	29	3,574,097	29	3,405,565	35	4.90%	NEng
Maine	41	1,328,302	41	1,328,361	40	1,274,923	39	4.20%	NEng
New Hampshire	42	1,323,459	42	1,316,470	41	1,235,786	32	6.50%	NEng
Rhode Island	43	1,051,511	43	1,052,567	43	1,048,319	49	0.40%	NEng
Vermont	49	626,630	49	625,741	49	608,827	44	2.80%	NEng
New England	**9**	**14,618,806**	**9**	**14,444,865**	**9**	**13,922,517**	**7**	**3.80%**	**NEast**
New York	3	19,651,127	3	19,378,102	3	18,976,457	46	2.10%	MAtl
Pennsylvania	6	12,773,801	6	12,702,379	6	12,281,054	41	3.40%	MAtl
New Jersey	11	8,899,339	11	8,791,894	9	8,414,350	37	4.50%	MAtl
Mid-Atlantic	**4**	**41,324,267**	**4**	**40,872,375**	**4**	**39,671,861**	**8**	**3.00%**	**NEast**
Northeast	**4**	**55,943,073**	**4**	**55,317,240**	**4**	**53,594,378**	**4**	**3.20%**	**USA**
Florida	4	19,552,860	4	18,801,310	4	15,982,378	8	17.60%	SAtl
Georgia	8	9,992,167	9	9,687,653	10	8,186,453	7	18.30%	SAtl
North Carolina	10	9,848,060	10	9,535,483	11	8,049,313	6	18.50%	SAtl
Virginia	12	8,260,405	12	8,001,024	12	7,078,515	16	13.00%	SAtl
Maryland	19	5,928,814	19	5,773,552	19	5,296,486	23	9.00%	SAtl
South Carolina	24	4,774,839	24	4,625,364	26	4,012,012	10	15.30%	SAtl
West Virginia	38	1,854,304	37	1,852,994	37	1,808,344	45	2.50%	SAtl
Delaware	45	925,749	45	897,934	45	783,600	11	14.60%	SAtl
District of Columbia	--	**646,449**	--	**601,723**	--	**572,059**	--	**5.20%**	**SAtl**
South Atlantic	**1**	**61,783,647**	**1**	**59,777,037**	**1**	**51,769,160**	**3**	**15.50%**	**South**
Tennessee	17	6,495,978	17	6,346,105	16	5,689,283	19	11.50%	ESC
Alabama	23	4,833,722	23	4,779,736	23	4,447,100	27	7.50%	ESC
Kentucky	26	4,395,295	26	4,339,367	25	4,041,769	28	7.40%	ESC
Mississippi	31	2,991,207	31	2,967,297	31	2,844,658	38	4.30%	ESC
East South Central	**8**	**18,716,202**	**8**	**18,432,505**	**8**	**17,022,810**	**5**	**8.30%**	**South**
Texas	2	26,448,193	2	25,145,561	2	20,851,820	5	20.60%	WSC
Louisiana	25	4,625,470	25	4,533,372	22	4,468,976	48	1.40%	WSC
Oklahoma	28	3,850,568	28	3,751,351	27	3,450,654	24	8.70%	WSC
Arkansas	32	2,959,373	32	2,915,918	33	2,673,400	22	9.10%	WSC
West South Central	**5**	**37,883,604**	**5**	**36,346,202**	**5**	**31,444,850**	**2**	**15.60%**	**South**

If you are interested you can download this workbook here.

In this part of the presentation, we will have a quick look at conditional formatting and sorting and filtering data to make it easier to work with. We also make a start on formulas, Excel's way of performing calculations and manipulating data.

A few slides ago we saw how in a couple of easy steps we could convert names split into 3 columns into a single column with unnecessary characters removed. We will explore the processes later in this presentation.

Title	GivenName	Surname			
Ms.	Summer	Brown	Ms. Summer Brown	Ms. Summer Brown	Ms Summer Brown
Mrs.	Erin	Hamilton	Mrs. Erin Hamilton	Mrs. Erin Hamilton	Mrs Erin Hamilton
Ms.	Jennifer	Hobbs	Ms. Jennifer Hobbs	Ms. Jennifer Hobbs	Ms Jennifer Hobbs
Mr.	Edward	Carter	Mr. Edward Carter	Mr. Edward Carter	Mr Edward Carter
Mr.	Edward	Murphy	Mr. Edward Murphy	Mr. Edward Murphy	Mr Edward Murphy
Mr.	Kian	Lowe	Mr. Kian Lowe	Mr. Kian Lowe	Mr Kian Lowe
Mr.	Aaron	Richardson	Mr. Aaron Richardson	Mr. Aaron Richardson	Mr Aaron Richardson
Mr.	Samuel	Short	Mr. Samuel Short	Mr. Samuel Short	Mr Samuel Short
Mr.	Alfie	Chamberlain	Mr. Alfie Chamberlain	Mr. Alfie Chamberlain	Mr Alfie Chamberlain
Mr.	Adam	Kelly	Mr. Adam Kelly	Mr. Adam Kelly	Mr Adam Kelly
Mrs.	Eva	Rees	Mrs. Eva Rees	Mrs. Eva Rees	Mrs Eva Rees
Mrs.	Lucy	Kelly	Mrs. Lucy Kelly	Mrs. Lucy Kelly	Mrs Lucy Kelly
Mrs.	Eva	Marsden	Mrs. Eva Marsden	Mrs. Eva Marsden	Mrs Eva Marsden
Mr.	Joel	Noble	Mr. Joel Noble	Mr. Joel Noble	Mr Joel Noble
Mrs.	Millie	Hill	Mrs. Millie Hill	Mrs. Millie Hill	Mrs Millie Hill
Mr.	Charlie	Begum	Mr. Charlie Begum	Mr. Charlie Begum	Mr Charlie Begum
Ms.	Rachel	Bond	Ms. Rachel Bond	Ms. Rachel Bond	Ms Rachel Bond
Mr.	Lucas	McKenzie	Mr. Lucas McKenzie	Mr. Lucas McKenzie	Mr Lucas McKenzie
Ms.	Erin	Cooper	Ms. Erin Cooper	Ms. Erin Cooper	Ms Erin Cooper
Mr.	Ethan	Wright	Mr. Ethan Wright	Mr. Ethan Wright	Mr Ethan Wright
Mr.	Jude	Taylor	Mr. Jude Taylor	Mr. Jude Taylor	Mr Jude Taylor
Mr.	Ethan	Thorpe	Mr. Ethan Thorpe	Mr. Ethan Thorpe	Mr Ethan Thorpe
Mrs.	Freya	O'Brien	Mrs. Freya O'Brien	Mrs. Freya O'Brien	Mrs Freya O'Brien
Ms.	Naomi	Walton	Ms. Naomi Walton	Ms. Naomi Walton	Ms Naomi Walton

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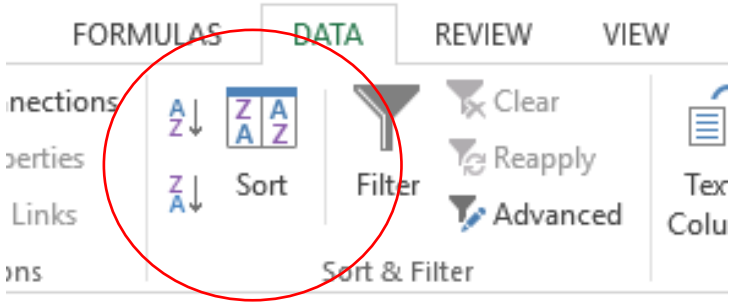
Sorting is most easily achieved from the Data tab of the ribbon.



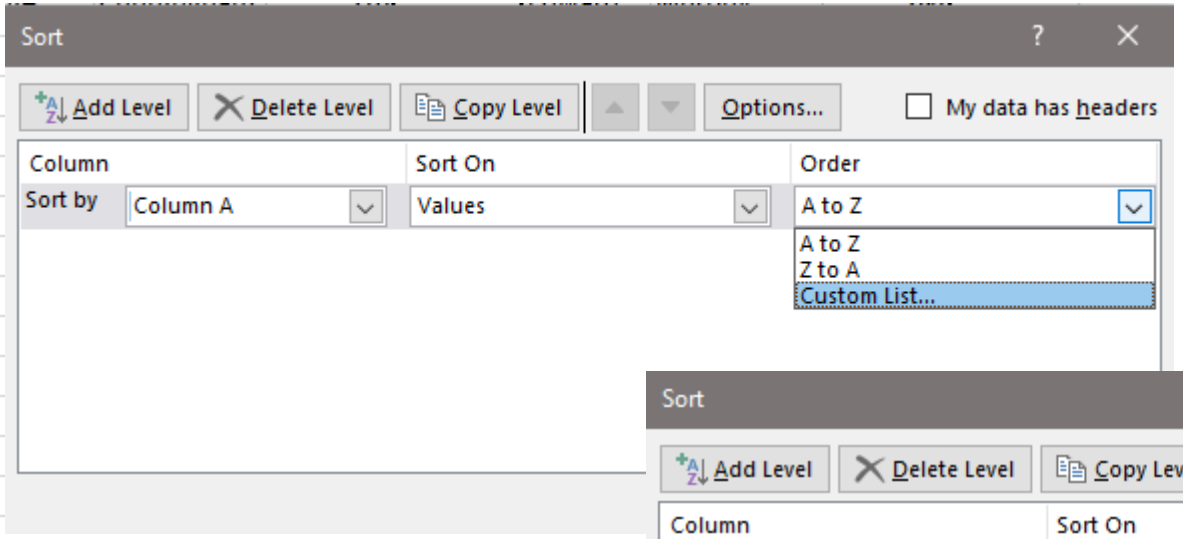
The screenshot on the right shows some random data in columns A to C. The data has then been copied into columns E to G and sorted alphabetically by surname (column F). The same data is used in columns I to K, this time sorted in descending order by the numbers in column K.

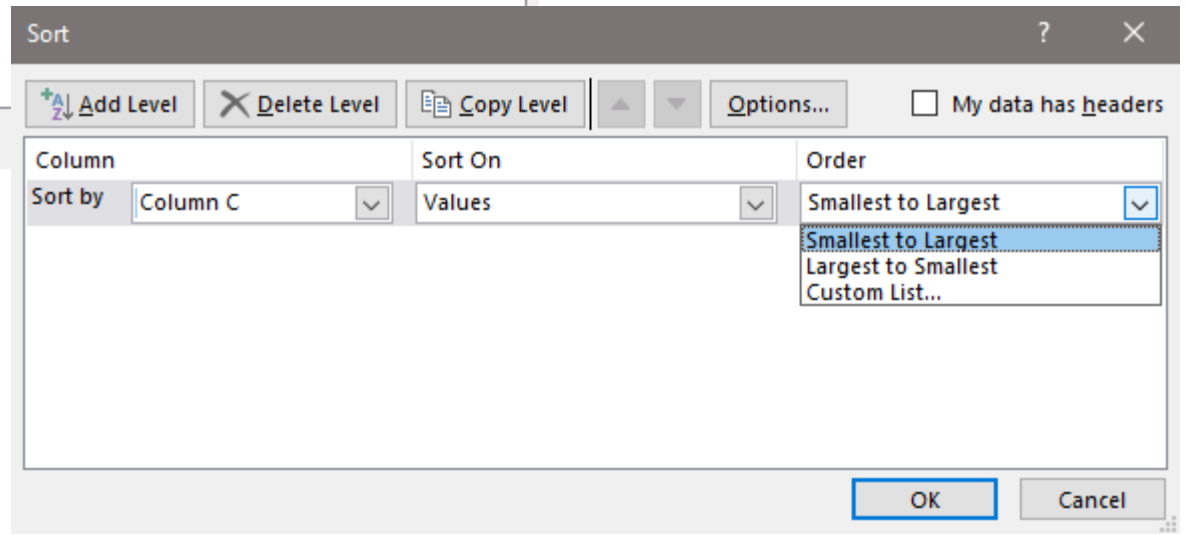
	A	B	C	D	E	F	G	H	I	J	K
1	Summer	Brown	299		Billy	Bartlett	258		Millie	Hill	396
2	Erin	Hamilton	281		Charlie	Begum	230		Edward	Carter	393
3	Jennifer	Hobbs	350		Rachel	Bond	254		Adam	Kelly	374
4	Edward	Carter	393		Summer	Brown	299		Jennifer	Hobbs	350
5	Edward	Murphy	284		Edward	Carter	393		Jodie	Cunningham	316
6	Kian	Lowe	131		Alfie	Chamberlain	70		Natasha	Ford	313
7	Aaron	Richardson	56		Erin	Cooper	192		Summer	Brown	299
8	Samuel	Short	147		Jodie	Cunningham	316		Edward	Murphy	284
9	Alfie	Chamberlain	70		Natasha	Ford	313		Joel	Noble	282
10	Adam	Kelly	374		Matthew	Gill	67		Erin	Hamilton	281
11	Eva	Rees	50		Erin	Hamilton	281		Jude	Taylor	276
12	Lucy	Kelly	189		Millie	Hill	396		Billy	Bartlett	258
13	Eva	Marsden	175		Jennifer	Hobbs	350		Rachel	Bond	254
14	Joel	Noble	282		Freya	Hyde	89		Charlie	Begum	230
15	Millie	Hill	396		Adam	Kelly	374		Erin	Cooper	192
16	Charlie	Begum	230		Lucy	Kelly	189		Lucy	Kelly	189
17	Rachel	Bond	254		Kian	Lowe	131		Lucas	McKenzie	184
18	Lucas	McKenzie	184		Eva	Marsden	175		Eva	Marsden	175
19	Erin	Cooper	192		Lucas	McKenzie	184		Olivia	Watkins	160
20	Ethan	Wright	75		Edward	Murphy	284		Samuel	Short	147
21	Jude	Taylor	276		Joel	Noble	282		Ethan	Thorpe	138
22	Ethan	Thorpe	138		Freya	O'Brien	15		Kian	Lowe	131
23	Freya	O'Brien	15		Eva	Rees	50		Freya	Hyde	89
24	Naomi	Walton	36		Aaron	Richardson	56		Ethan	Wright	75
25	Billy	Bartlett	258		Samuel	Short	147		Alfie	Chamberlain	70
26	Olivia	Watkins	160		Jude	Taylor	276		Matthew	Gill	67
27	Matthew	Gill	67		Ethan	Thorpe	138		Aaron	Richardson	56
28	Freya	Hyde	89		Naomi	Walton	36		Eva	Rees	50
29	Natasha	Ford	313		Olivia	Watkins	160		Naomi	Walton	36
30	Jodie	Cunningham	316		Ethan	Wright	75		Freya	O'Brien	15

When you select a range of cells to sort, and then click the sort button on the ribbon, a small screen opens in the centre of the window to allow you to select the sorting criteria.

	A	B	C
1	Summer	Brown	299
2	Erin	Hamilton	281
3	Jennifer	Hobbs	350
4	Edward	Carter	393
5	Edward	Murphy	284
6	Kian	Lowe	131
7	Aaron	Richardson	56
8	Samuel	Short	147
9	Alfie	Chamberlain	70
10	Adam	Kelly	374
11	Eva	Rees	50
12	Lucy	Kelly	189
13	Eva	Marsden	175
14	Joel	Noble	282
15	Millie	Hill	396
16	Charlie	Begum	230
17	Rachel	Bond	254
18	Lucas	McKenzie	184
19	Erin	Cooper	192
20	Ethan	Wright	75
21	Jude	Taylor	276
22	Ethan	Thorpe	138
23	Freya	O'Brien	15
24	Naomi	Walton	36
25	Billy	Bartlett	258
26	Olivia	Watkins	160
27	Matthew	Gill	67
28	Freya	Hyde	89
29	Natasha	Ford	313
30	Jodie	Cunningham	316

This window is context-specific, as can be seen in the 2 screenshots below. The block of data contains 2 columns of text and one of numbers. Sorting by column A offers the choice of *A to Z* or *Z to A*, while the options for column C are *Smallest to Largest* or *Largest to Smallest*.





	A	B	C	D
1	316	21	15	2
2	415	37	36	6
3	289	43	50	12
4	299	29	56	12
5	281	21	67	12
6	350	43	70	16
7	393	22	75	17
8	284	12	89	21
9	131	30	131	21
10	56	24	138	22
11	147	41	147	24
12	70	42	160	29
13	374	36	175	29
14	50	16	184	30
15	189	30	189	30
16	175	31	192	31
17	282	38	230	35
18	396	41	254	36
19	230	48	258	36
20	254	17	276	37
21	184	2	281	38
22	192	52	282	38
23	75	44	284	40
24	276	41	289	41
25	138	38	299	41
26	15	35	313	41
27	36	12	316	42
28	258	47	350	43
29	160	40	374	43
30	67	6	393	44
31	89	29	396	47
32	313	12	399	48
33	416	36	415	52
34	399	8	416	59

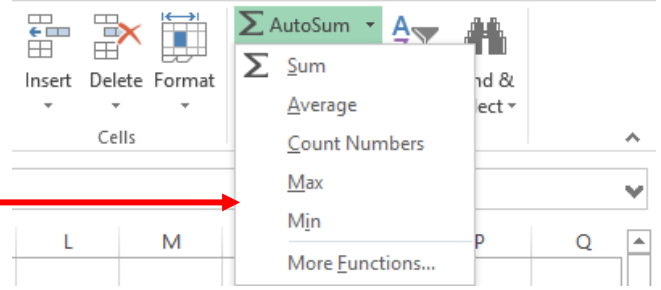
The picture on the left shows 4 columns of numbers, as follows:

Column A contains random numbers between 0 and 250, and column B has a more limited range of numbers between 0 and 50. Both columns have conditional formatting applied, to highlight duplicate values, and it is clear that there are no duplicates in column A.
The data has been copied to columns C and D, but this time the data has been sorted into ascending order to make it slightly more comprehensible.

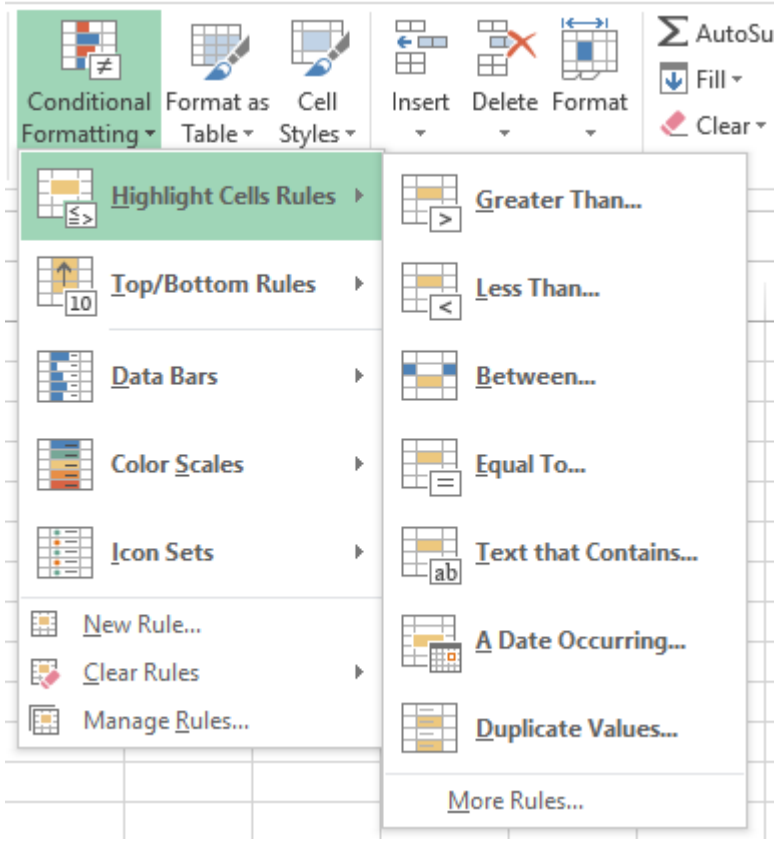
23	75	44	284	40
24	276	41	289	41
25	138	38	299	41
26	15	35	313	41
27	36	12	316	42
28	258	47	350	43
29	160	40	374	43
30	67	6	393	44
31	89	29	396	47
32	313	12	399	48
33	416	36	415	52
34	399	8	416	59
35	416	1024	223.5	2
36	=MAX(A1:A34)	=SUM(B1:B34)	=AVERAGE(C1:C34)	=MIN(D1:D34)

This screenshot shows in row 35 some calculations that have been performed on the numbers in each column, and in row 36 the formulae used to calculate this value (maximum, total, average, minimum).

These calculations can all be performed without actually typing the formula: the “Editing” section of the Home tab of the ribbon allows the options shown here to be calculated in the active cell.



Conditional formatting is accessed from the Home tab on the ribbon:

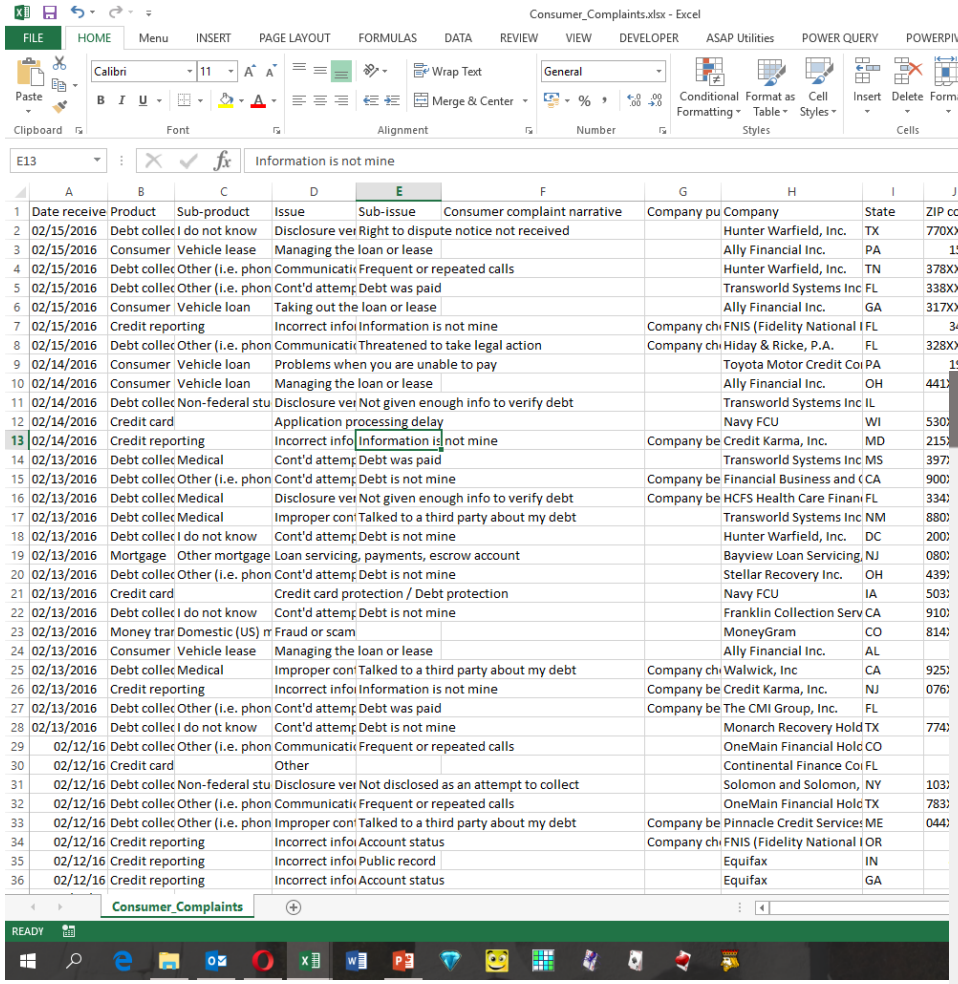


The screenshot on the left shows that cells can be highlighted if they meet certain criteria, including greater or less than a value, or duplicate values as we saw on the previous slide.

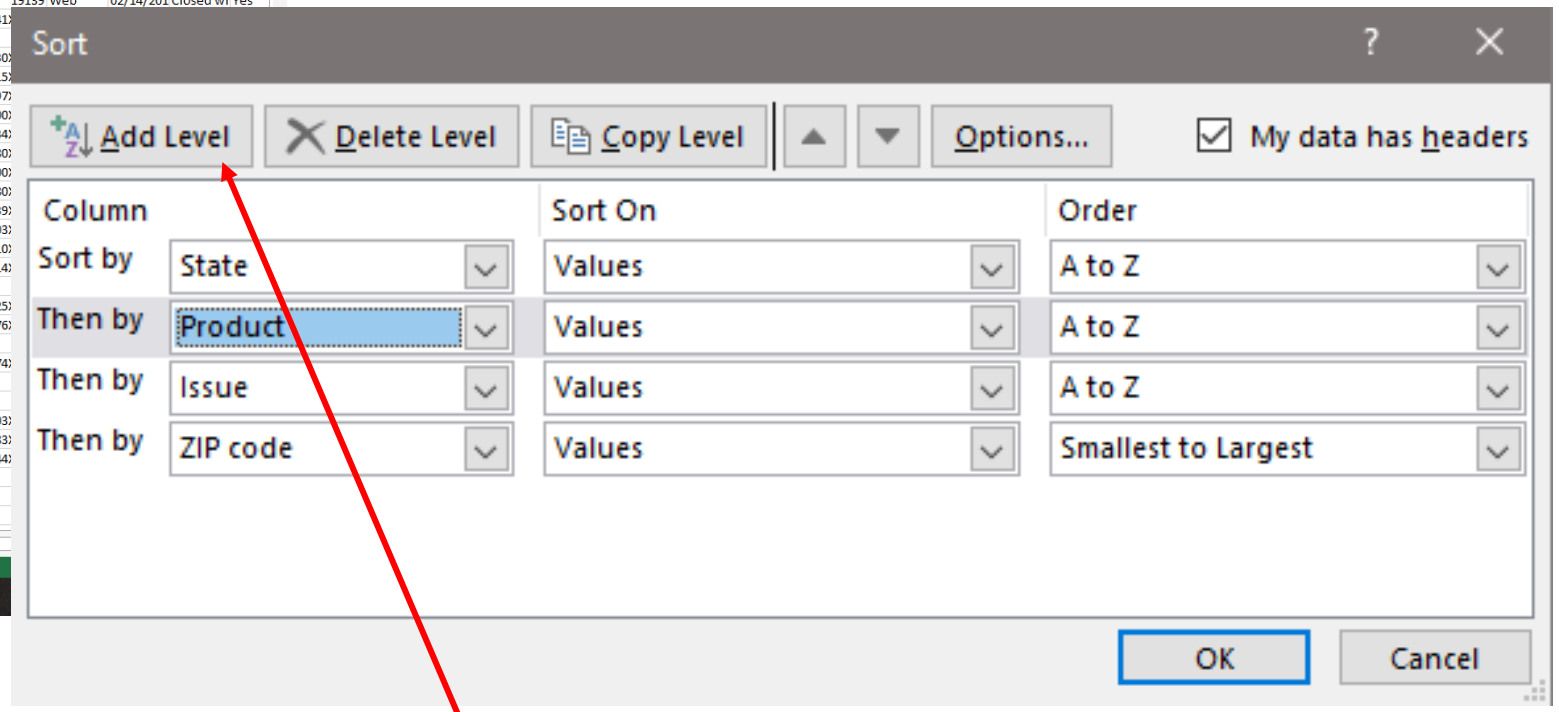
Examples of the “Data Bars”, “Colour Scales” and “Icon Sets” formats are shown on the right.

15	15	316
36	36	415
50	50	289
56	56	299
67	67	281
70	70	350
75	75	393
89	89	284
131	131	131
138	138	56
147	147	147
160	160	70
175	175	374
184	184	50
189	189	189
192	192	175
230	230	282
254	254	396
258	258	230
276	276	254
281	281	184
282	282	192
284	284	75
289	289	276
299	299	138
313	313	15
316	316	36
350	350	258
374	374	160
393	393	67
396	396	89
399	399	313
415	415	416

This is just a glimpse into the many ways cells can automatically be formatted according to the values within them. If you are preparing a spreadsheet for presentation to someone else it is well worth spending a little time applying whichever conditional formatting makes the worksheet most comprehensible.



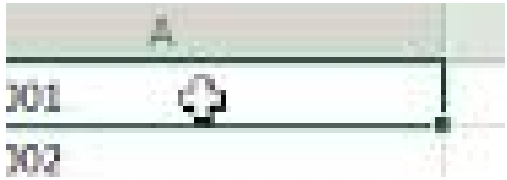
It is even possible to sort by multiple levels, when working with large data sets. The screenshot below shows that the data are grouped by State, A to Z, then within these groupings by product and issue, and finally by ZIP code.



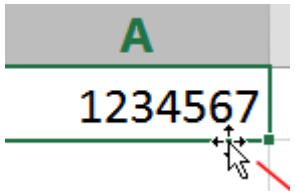
To include a secondary or subsequent sort level, simply click “Add Level” and configure it appropriately.

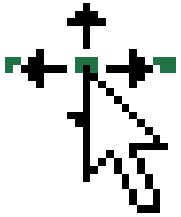
When selecting data to sort, always ensure that you have selected everything, including any empty rows and columns, otherwise there is a high risk that your data will become mismatched.

In Excel, the cursor normally looks like this:



If you position it over an edge of the active cell, it changes to this:





This symbol allows you to move the cell elsewhere on the worksheet.

If, however, you position the cursor over the bottom-right corner of the active cell it becomes what is known as the fill handle, and allows data to be propagated in any direction on the spreadsheet.
Click in a cell with data to be copied, hover the cursor over the cell's lower right corner until the cursor changes to a thin plus sign (+) (Excel 2010 or 2013 onwards) or a dark square (earlier versions of Excel), and drag up, down, left, or right to fill the cells.

The fill handle looks like a plus sign in Excel 2013, and on the next slide we'll look at what you can do with it.

The fill handle allows you to copy text data into adjacent cells, although if the data to be copied is a date, time period, or a custom-made series, the data will be incremented by one instead of just copied when the Fill Handle is used. Let's look at some examples:

Daisy	22/02/17	January	Monday	16:05
Daisy	23/02/17	February	Tuesday	17:05
Daisy	24/02/17	March	Wednesday	18:05
Daisy	25/02/17	April	Thursday	19:05
Daisy	26/02/17	May	Friday	20:05
Daisy	27/02/17	June	Saturday	21:05
Daisy	28/02/17	July	Sunday	22:05

Here we can see that the text (Daisy) has been copied down by dragging the fill handle downwards. The adjacent columns, containing day, date or time data, have all **increased** as they were dragged downwards.
Had the original data been in the lowest row, and the fill handles been dragged upwards, the result would have been the same, as the values would have **decreased** going up.

Suppose we wanted the times to increase by a minute each time, rather than an hour? To achieve this we would need to enter the first two times in the series, highlight both cells, and then drag the fill handle on the lower cell downwards as shown on the right. Column K shows that increases of 5 minutes per cell are also easily achieved in the same way.

J	K
16:05	16:05
16:06	16:10
16:07	16:15
16:08	16:20
16:09	16:25
16:10	16:30
16:11	16:35

When dealing with numbers, Excel will often copy the original number if you use the fill handle only on the first cell. If you enter the second value, select both cells and use the fill handle on the lower cell, Excel will create a series using the difference between the 2 values.

H	I	J	K
67	67	67	67
67	68	69	70
67	69	71	73
67	70	73	76
67	71	75	79
67	72	77	82
67	73	79	85

Working with Rows and Columns

To insert a new row in a spreadsheet, right-click on a row number, and click Insert. Excel always inserts the row ABOVE the row that was clicked on. If you want to continue inserting rows, press the F4 key to insert each additional row.
To delete a row, right-click on the row number, and click Delete. Contiguous rows can be deleted by highlighting them before clicking Delete. And non-contiguous rows can be selected by pressing and holding the CTRL key before clicking Delete. Don't press the Delete key on the keyboard unless you just want to delete the cell contents and not the actual row.
To insert a new column, right-click on a column letter and click Insert. Excel always inserts the column to the LEFT of the column that was clicked on. As with rows, if you want to add additional columns after inserting the first column, press the F4 key.
To delete a column, right-click on the column letter, and click Delete. Contiguous columns can be deleted by highlighting them before clicking Delete. And non-contiguous columns can be selected by pressing and holding the CTRL key. Don't press the Delete key on the keyboard unless you just want to delete the cell contents and not the actual column.

If you ever see ##### in a cell, don't panic. It's just Excel's way of telling you that you need to make the column wider for the cell contents to display. To make the column wider, place the cursor on the right side of the column heading and drag the column edge to the right until the data displays. You can also double-click on the right-hand edge of the column heading of a single column or a group of highlighted columns to make it/them fit the contents.

Earlier in this presentation we saw a slide showing how Excel could convert 3 columns of title, name and surname into a single column containing all 3 elements of the name. Let's have a look at this process now. The process of joining text is called concatenation, and Excel has a handy CONCAT formula (short for concatenate). (All Excel formulas are expressed in block capitals.)

In this case we want to concatenate the contents of cells A2,B2 and C2, so we could use the formula =CONCAT (A2,B2,C2). That looks as if it would do the trick, but in fact we have forgotten the space between words and the result would be "Ms.SummerBrown". We therefore need to tell Excel to leave a space between elements 1 and 2, and another space between elements 2 and 3. We do this by using the formula =CONCAT (A2," ",B2," ",C2), where the pair of quotation marks with a space between tells Excel we want a space. This formula gives the result in the second image below, and if we grab the fill handle in the bottom right corner of cell D2 and drag it down, the other cells are also filled. (See the third image below.)

	A	B	C
1	Title	GivenName	Surname
2	Ms.	Summer	Brown
3	Mrs.	Erin	Hamilton
4	Ms.	Jennifer	Hobbs
5	Mr.	Edward	Carter
6	Mr.	Edward	Murphy
7	Mr.	Kian	Lowe
8	Mr.	Aaron	Richardson
9	Mr.	Samuel	Short
10			

Title	GivenName	Surname	
Ms.	Summer	Brown	Ms. Summer Brown
Mrs.	Erin	Hamilton	
Ms.	Jennifer	Hobbs	
Mr.	Edward	Carter	
Mr.	Edward	Murphy	
Mr.	Kian	Lowe	
Mr.	Aaron	Richardson	
Mr.	Samuel	Short	

	A	B	C	D
1	Title	GivenName	Surname	
2	Ms.	Summer	Brown	Ms. Summer Brown
3	Mrs.	Erin	Hamilton	Mrs. Erin Hamilton
4	Ms.	Jennifer	Hobbs	Ms. Jennifer Hobbs
5	Mr.	Edward	Carter	Mr. Edward Carter
6	Mr.	Edward	Murphy	Mr. Edward Murphy
7	Mr.	Kian	Lowe	Mr. Kian Lowe
8	Mr.	Aaron	Richardson	Mr. Aaron Richardson
9	Mr.	Samuel	Short	Mr. Samuel Short
10				

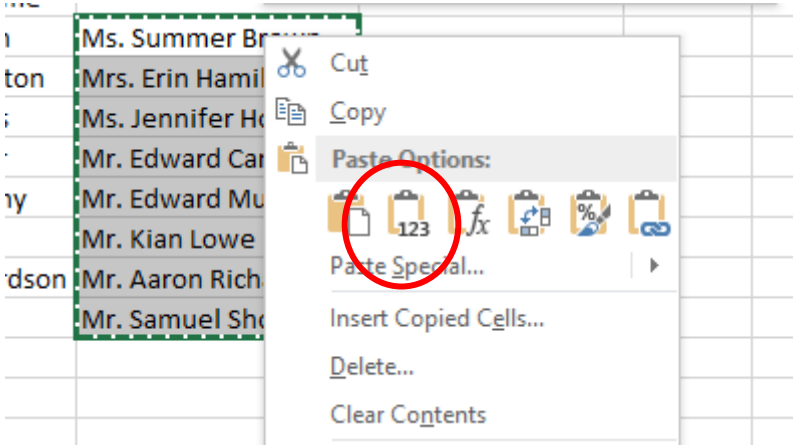
We are not quite finished yet, however.
What we see as, Excel sees as what we have asked it to calculate.

	A	B	C	D
1	Title	GivenName	Surname	
2	Ms.	Summer	Brown	Ms. Summer Brown
3	Mrs.	Erin	Hamilton	Mrs. Erin Hamilton
4	Ms.	Jennifer	Hobbs	Ms. Jennifer Hobbs
5	Mr.	Edward	Carter	Mr. Edward Carter
6	Mr.	Edward	Murphy	Mr. Edward Murphy
7	Mr.	Kian	Lowe	Mr. Kian Lowe
8	Mr.	Aaron	Richardson	Mr. Aaron Richardson
9	Mr.	Samuel	Short	Mr. Samuel Short

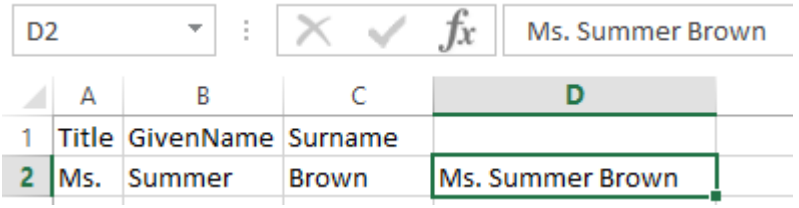
	A	B	C	D
1	Title	GivenName	Surname	
2	Ms.	Summer	Brown	=CONCATENATE(A2," ",B2," ",C2)
3	Mrs.	Erin	Hamilton	=CONCATENATE(A3," ",B3," ",C3)
4	Ms.	Jennifer	Hobbs	=CONCATENATE(A4," ",B4," ",C4)
5	Mr.	Edward	Carter	=CONCATENATE(A5," ",B5," ",C5)
6	Mr.	Edward	Murphy	=CONCATENATE(A6," ",B6," ",C6)
7	Mr.	Kian	Lowe	=CONCATENATE(A7," ",B7," ",C7)
8	Mr.	Aaron	Richardson	=CONCATENATE(A8," ",B8," ",C8)
9	Mr.	Samuel	Short	=CONCATENATE(A9," ",B9," ",C9)

If we want to do anything else with this data, we need the cell to contain the data we see, not the formula we used to create it. (And in this case we do want to do something else, as we need to remove the full stop).
We do this by selecting the cells that contain the formula by clicking in the middle of the first cell and dragging to the last cell, then right-clicking and selecting “Copy” (or using the keyboard shortcut Ctrl & C). The selected area should now be surrounded by rotating green dashes.

Click again in the first cell, right-click and you will see among the options “Paste Options”. The second of these shows a clipboard with “123” over it, the icon for the process we want to conduct, called “paste values”. If you now select this the formulas will be replaced by the calculated values.



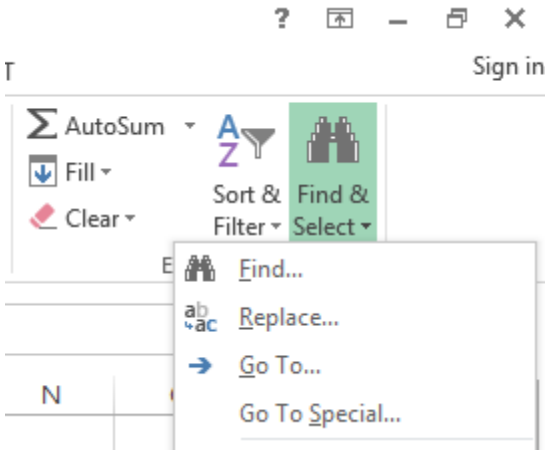
It is easy to check if this has worked: simply click on one of the selected cells and see what appears in the formula bar.



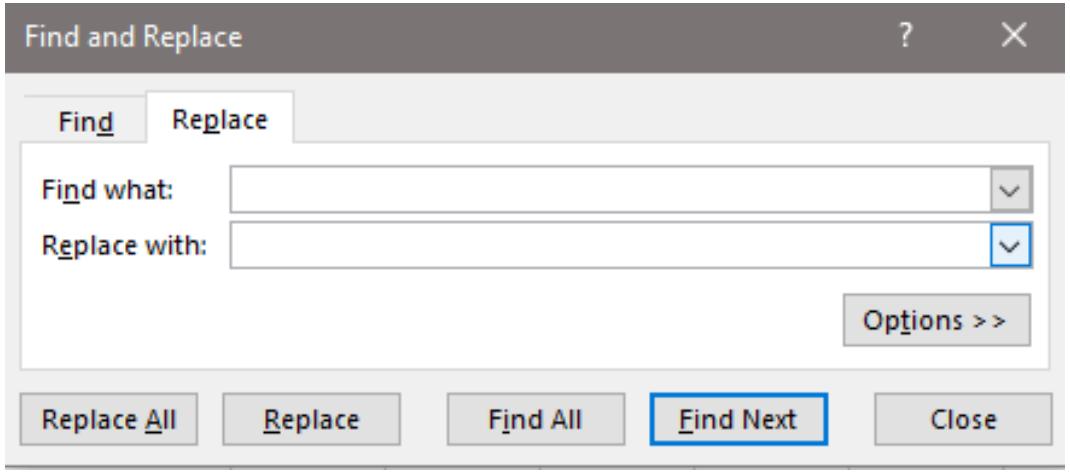
There is one final step we need to take to get our data looking the way we want, which is to remove the unnecessary full stop after the title in cells D2 to D9.

	A	B	C	D
1	Title	GivenName	Surname	
2	Ms.	Summer	Brown	Ms. Summer Brown
3	Mrs.	Erin	Hamilton	Mrs. Erin Hamilton
4	Ms.	Jennifer	Hobbs	Ms. Jennifer Hobbs
5	Mr.	Edward	Carter	Mr. Edward Carter
6	Mr.	Edward	Murphy	Mr. Edward Murphy
7	Mr.	Kian	Lowe	Mr. Kian Lowe
8	Mr.	Aaron	Richardson	Mr. Aaron Richardson
9	Mr.	Samuel	Short	Mr. Samuel Short
10				

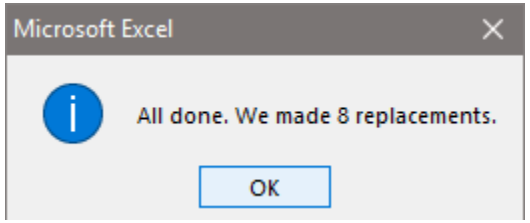
We do this using the “Replace” action from the *Editing* section of the Home tab on the ribbon. “Find” and “Replace” may well be familiar concepts if you have used a word processing program like Word or WordPad, or even a simple text editor like Notepad.



Select cells D2 to D9, then on the ribbon select “Find & Select”, then “Replace”. A new “Find and Replace” window should open with the “Replace” tab already selected. In the “Find what:” box, simply type a full stop, and leave the “Replace with:” box blank. Click on the “Replace All” button at the bottom, and all the full stops will disappear.

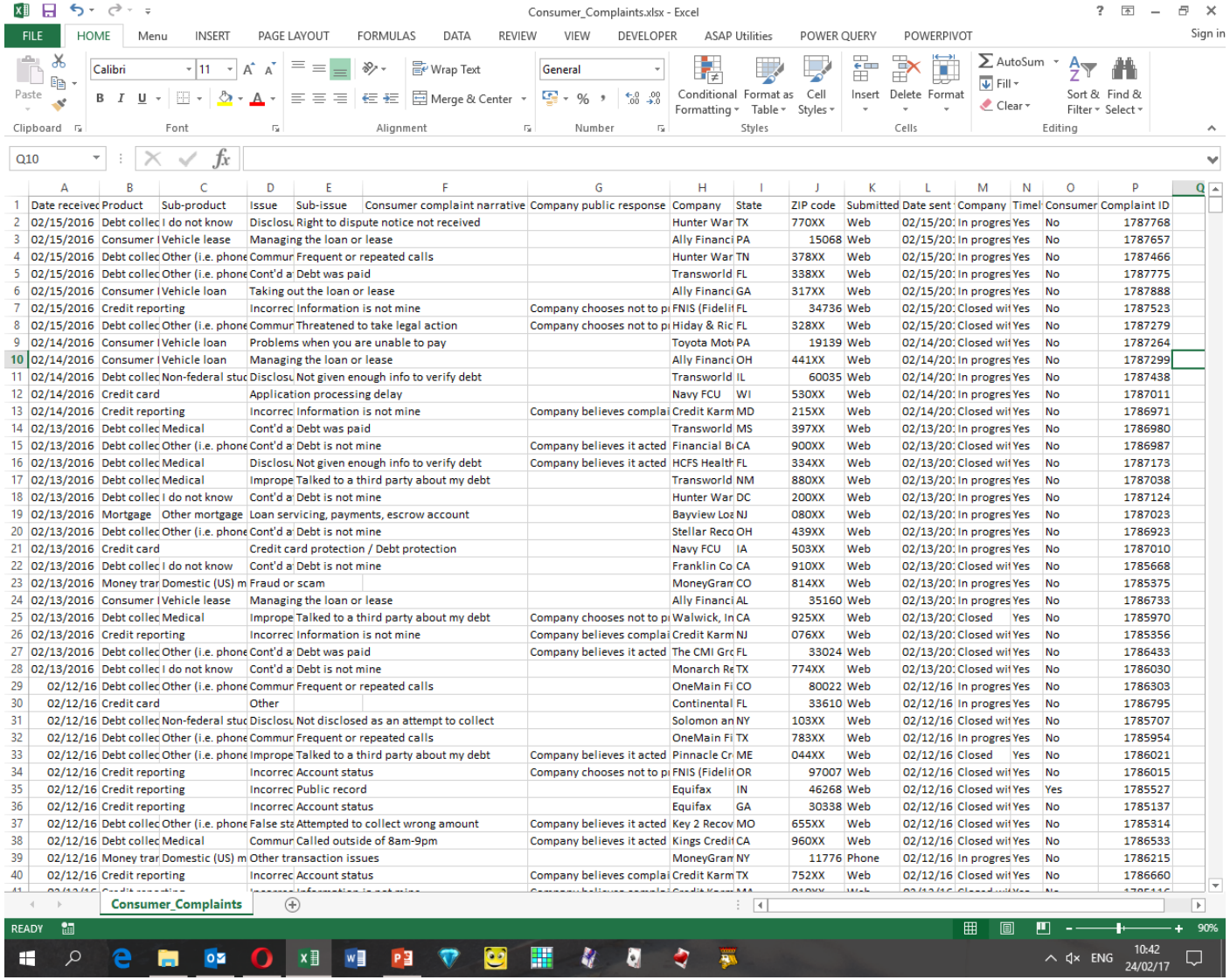


There will also be a message advising how many replacements were made.



Ms Summer Brown
Mrs Erin Hamilton
Ms Jennifer Hobbs
Mr Edward Carter
Mr Edward Murphy
Mr Kian Lowe
Mr Aaron Richardson
Mr Samuel Short

Please note that all the previous examples in this presentation use small data samples in the interests of simplicity and to make the screenshots more comprehensible. In the real world, Excel really comes into its own when working with large (and very large) quantities of data.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Date receivec	Product	Sub-product	Issue	Sub-issue	Consumer complaint narrative	Company public response	Company	State	ZIP code	Submitted	Date sent	Company	Timel	Consumer	Complaint ID
2	02/15/2016	Debt collec	I do not know	Disclosu	Right to dispute notice not received			Hunter War	TX	770XX	Web	02/15/20	In progres	Yes	No	1787768
3	02/15/2016	Consumer l	Vehicle lease	Managing the loan or lease				Ally Financi	PA	15068	Web	02/15/20	In progres	Yes	No	1787657
4	02/15/2016	Debt collec	Other (i.e. phone	Commur	Frequent or repeated calls			Hunter War	TN	378XX	Web	02/15/20	In progres	Yes	No	1787466
5	02/15/2016	Debt collec	Other (i.e. phone	Cont'd a	Debt was paid			Transworld	FL	338XX	Web	02/15/20	In progres	Yes	No	1787775
6	02/15/2016	Consumer l	Vehicle loan	Taking out the loan or lease				Ally Financi	GA	317XX	Web	02/15/20	In progres	Yes	No	1787888
7	02/15/2016	Credit reporting		Incorrec	Information is not mine		Company chooses not to pi	FNIS (Fidelit	FL	34736	Web	02/15/20	Closed wit	Yes	No	1787523
8	02/15/2016	Debt collec	Other (i.e. phone	Commur	Threatened to take legal action		Company chooses not to pi	Hiday & Ric	FL	328XX	Web	02/15/20	Closed wit	Yes	No	1787279
9	02/14/2016	Consumer l	Vehicle loan	Problems when you are unable to pay				Toyota Mot	PA	19139	Web	02/14/20	Closed wit	Yes	No	1787264
10	02/14/2016	Consumer l	Vehicle loan	Managing the loan or lease				Ally Financi	OH	441XX	Web	02/14/20	In progres	Yes	No	1787299
11	02/14/2016	Debt collec	Non-federal stuc	Disclosu	Not given enough info to verify debt			Transworld	IL	60035	Web	02/14/20	In progres	Yes	No	1787438
12	02/14/2016	Credit card		Application processing delay				Navy FCU	WI	530XX	Web	02/14/20	In progres	Yes	No	1787011
13	02/14/2016	Credit reporting		Incorrec	Information is not mine		Company believes complai	Credit Karm	MD	215XX	Web	02/14/20	Closed wit	Yes	No	1786971
14	02/13/2016	Debt collec	Medical	Cont'd a	Debt was paid			Transworld	MS	397XX	Web	02/13/20	In progres	Yes	No	1786980
15	02/13/2016	Debt collec	Other (i.e. phone	Cont'd a	Debt is not mine		Company believes it acted	Financial Bi	CA	900XX	Web	02/13/20	Closed wit	Yes	No	1786987
16	02/13/2016	Debt collec	Medical	Disclosu	Not given enough info to verify debt		Company believes it acted	HCFS Health	FL	334XX	Web	02/13/20	Closed wit	Yes	No	1787173
17	02/13/2016	Debt collec	Medical	Improper	Talked to a third party about my debt			Transworld	NM	880XX	Web	02/13/20	In progres	Yes	No	1787038
18	02/13/2016	Debt collec	I do not know	Cont'd a	Debt is not mine			Hunter War	DC	200XX	Web	02/13/20	In progres	Yes	No	1787124
19	02/13/2016	Mortgage	Other mortgage	Loan servicing, payments, escrow account				Bayview Loa	NJ	080XX	Web	02/13/20	In progres	Yes	No	1787023
20	02/13/2016	Debt collec	Other (i.e. phone	Cont'd a	Debt is not mine			Stellar Reco	OH	439XX	Web	02/13/20	In progres	Yes	No	1786923
21	02/13/2016	Credit card		Credit card protection / Debt protection				Navy FCU	IA	503XX	Web	02/13/20	In progres	Yes	No	1787010
22	02/13/2016	Debt collec	I do not know	Cont'd a	Debt is not mine			Franklin Co	CA	910XX	Web	02/13/20	Closed wit	Yes	No	1785668
23	02/13/2016	Money trar	Domestic (US) m	Fraud or scam				MoneyGram	CO	814XX	Web	02/13/20	In progres	Yes	No	1785375
24	02/13/2016	Consumer l	Vehicle lease	Managing the loan or lease				Ally Financi	AL	35160	Web	02/13/20	In progres	Yes	No	1786733
25	02/13/2016	Debt collec	Medical	Improper	Talked to a third party about my debt		Company chooses not to pi	Walwick, In	CA	925XX	Web	02/13/20	Closed	Yes	No	1785970
26	02/13/2016	Credit reporting		Incorrec	Information is not mine		Company believes complai	Credit Karm	NJ	076XX	Web	02/13/20	Closed wit	Yes	No	1785356
27	02/13/2016	Debt collec	Other (i.e. phone	Cont'd a	Debt was paid		Company believes it acted	The CMI Grc	FL	33024	Web	02/13/20	Closed wit	Yes	No	1786433
28	02/13/2016	Debt collec	I do not know	Cont'd a	Debt is not mine			Monarch Re	TX	774XX	Web	02/13/20	Closed wit	Yes	No	1786030
29	02/12/16	Debt collec	Other (i.e. phone	Commur	Frequent or repeated calls			OneMain Fi	CO	80022	Web	02/12/16	In progres	Yes	No	1786303
30	02/12/16	Credit card		Other				Continental	FL	33610	Web	02/12/16	In progres	Yes	No	1786795
31	02/12/16	Debt collec	Non-federal stuc	Disclosu	Not disclosed as an attempt to collect			Solomon an	NY	103XX	Web	02/12/16	Closed wit	Yes	No	1785707
32	02/12/16	Debt collec	Other (i.e. phone	Commur	Frequent or repeated calls			OneMain Fi	TX	783XX	Web	02/12/16	In progres	Yes	No	1785954
33	02/12/16	Debt collec	Other (i.e. phone	Improper	Talked to a third party about my debt		Company believes it acted	Pinnacle Cr	ME	044XX	Web	02/12/16	Closed	Yes	No	1786021
34	02/12/16	Credit reporting		Incorrec	Account status		Company chooses not to pi	FNIS (Fidelit	OR	97007	Web	02/12/16	Closed wit	Yes	No	1786015
35	02/12/16	Credit reporting		Incorrec	Public record			Equifax	IN	46268	Web	02/12/16	Closed wit	Yes	Yes	1785527
36	02/12/16	Credit reporting		Incorrec	Account status			Equifax	GA	30338	Web	02/12/16	Closed wit	Yes	No	1785137
37	02/12/16	Debt collec	Other (i.e. phone	False sta	Attempted to collect wrong amount		Company believes it acted	Key 2 Recov	MO	655XX	Web	02/12/16	Closed wit	Yes	No	1785314
38	02/12/16	Debt collec	Medical	Commur	Called outside of 8am-9pm		Company believes it acted	Kings Credit	CA	960XX	Web	02/12/16	Closed wit	Yes	No	1786533
39	02/12/16	Money trar	Domestic (US) m	Other transaction issues				MoneyGram	NY	11776	Phone	02/12/16	In progres	Yes	No	1786215
40	02/12/16	Credit reporting		Incorrec	Account status		Company believes complai	Credit Karm	TX	752XX	Web	02/12/16	Closed wit	Yes	No	1786660

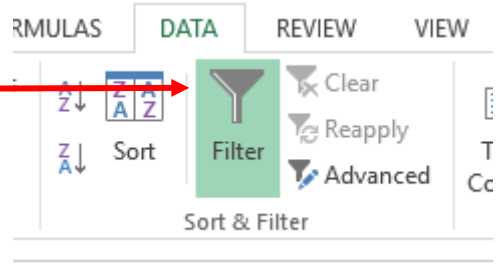
The screenshot on the left is of the first 40 rows of a spreadsheet which actually contains more than 500,000 rows and 16 columns(and therefore more than 8 million populated cells).

You can download the actual spreadsheet by clicking on this link:
https://www.highamandrushdenu3a.org.uk/documents/Consumer_Complaints.xlsx

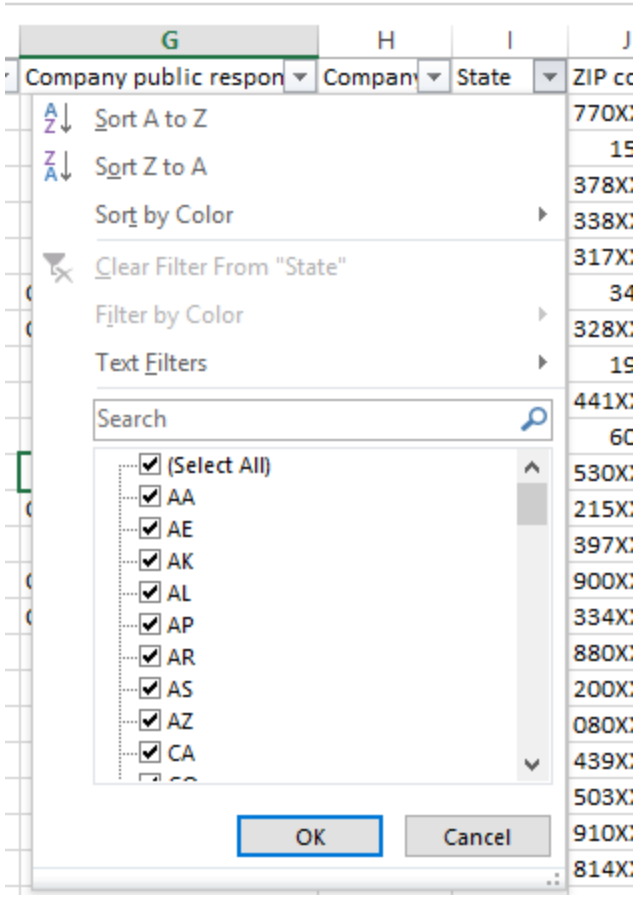
(Note that large files can take a while to download.)

The following slides have screenshots illustrating filtering using that workbook.

On the *Data* tab, in the “sort & Filter” section, click on “Filter”.



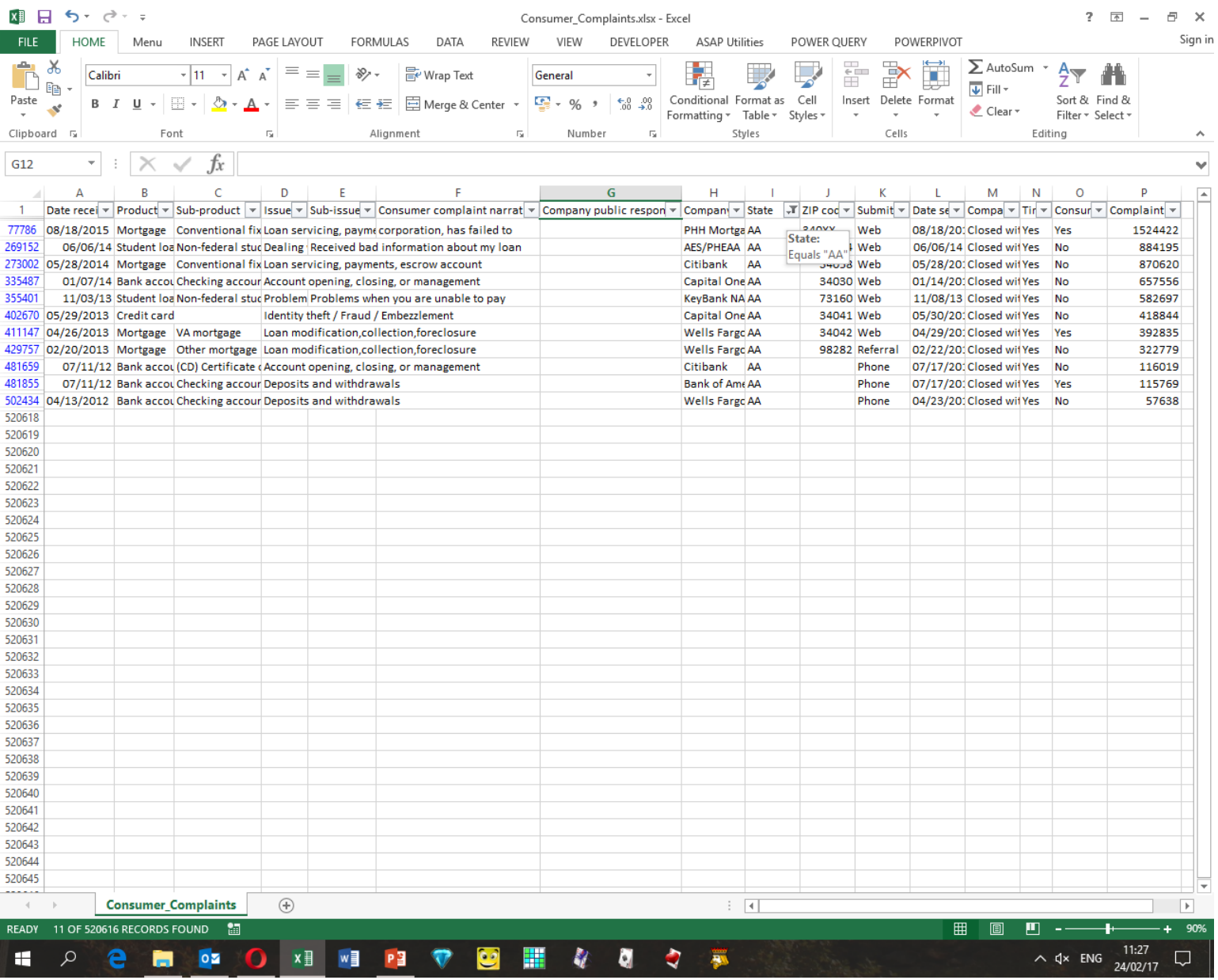
A dropdown arrow will appear in the heading of each column as shown below:



Click on the arrow in the column by which you want to filter, in this case “State” (column I) to open a screen as shown on the left.

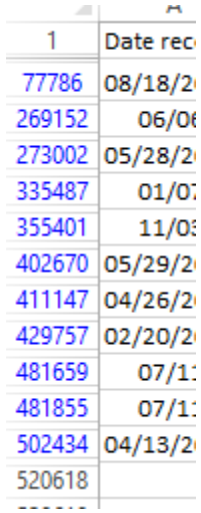
The bottom part of the screen lists all the available values in the column, each with a tick box.
By adding and removing ticks it is possible to select one or more values to see only the records containing that value.
Let us assume that we want to see only records for state AA. We therefore need to remove the ticks from all the other values in the list. The simplest way to do this is to click on the tick box at the top of the list, next to (Select All), to deselect all the values. Thereafter simply click on the box next to AA and then click the “OK” button at the bottom of the filter screen.

Once the filter is applied, you will see the following changes to the screen:



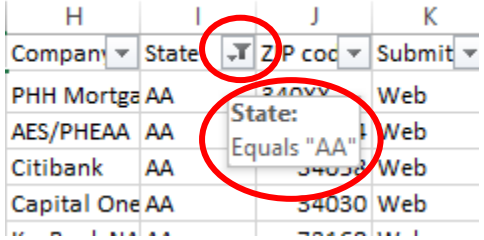
	Date rece	Product	Sub-product	Issue	Sub-issue	Consumer complaint narrat	Company public respon	Compan	State	ZIP coc	Submit	Date se	Compa	Tir	Consur	Complaint
77786	08/18/2015	Mortgage	Conventional fix	Loan servicing, payme		corporation, has failed to		PHH Mortga	AA		Web	08/18/20	Closed wit	Yes	Yes	1524422
269152	06/06/14	Student loa	Non-federal stuc	Dealing		Received bad information about my loan		AES/PHEAA	AA		Web	06/06/14	Closed wit	Yes	No	884195
273002	05/28/2014	Mortgage	Conventional fix	Loan servicing, payments, escrow account				Citibank	AA		Web	05/28/20	Closed wit	Yes	No	870620
335487	01/07/14	Bank accou	Checking accour	Account opening, closing, or management				Capital One	AA	34030	Web	01/14/20	Closed wit	Yes	No	657556
355401	11/03/13	Student loa	Non-federal stuc	Problem		Problems when you are unable to pay		KeyBank NA	AA	73160	Web	11/08/13	Closed wit	Yes	No	582697
402670	05/29/2013	Credit card		Identity theft / Fraud / Embezzlement				Capital One	AA	34041	Web	05/30/20	Closed wit	Yes	No	418844
411147	04/26/2013	Mortgage	VA mortgage	Loan modification,collection,foreclosure				Wells Fargc	AA	34042	Web	04/29/20	Closed wit	Yes	Yes	392835
429757	02/20/2013	Mortgage	Other mortgage	Loan modification,collection,foreclosure				Wells Fargc	AA	98282	Referral	02/22/20	Closed wit	Yes	No	322779
481659	07/11/12	Bank accou	(CD) Certificate	Account opening, closing, or management				Citibank	AA		Phone	07/17/20	Closed wit	Yes	No	116019
481855	07/11/12	Bank accou	Checking accour	Deposits and withdrawals				Bank of Ame	AA		Phone	07/17/20	Closed wit	Yes	Yes	115769
502434	04/13/2012	Bank accou	Checking accour	Deposits and withdrawals				Wells Fargc	AA		Phone	04/23/20	Closed wit	Yes	No	57638

The row numbers of the filtered rows turn blue.



The taskbar shows how many rows are in the selection.

The column header has an icon to show that it is filtered, and if you hover over the icon a screen shows the values by which it is filtered.



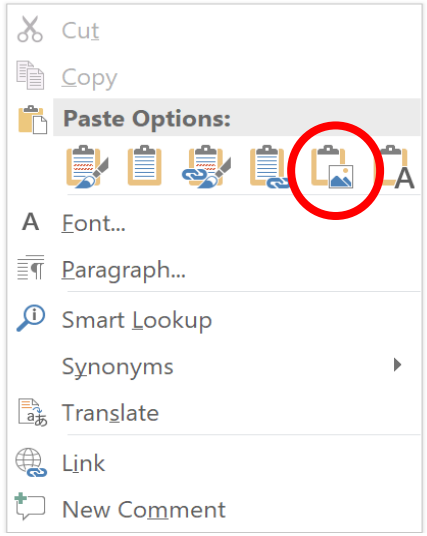
Related things we are often asked are how to display only the active cells and how to prevent other people changing the data.

The simplest method to display only active cells is as follows:

1. Click on the header of the first column you want to hide.
2. Simultaneously click the Ctrl, Shift and right arrow keys on your keyboard to highlight all columns to the right.
3. Right-click anywhere in the highlighted area and select “Hide”.
4. Click on the row number of the first row you want to hide.
5. Simultaneously click the Ctrl, Shift and down arrow keys on your keyboard to highlight all rows below.
6. Right-click anywhere in the highlighted area and select “Hide”.

If you are going to print the active cells then it is simpler to open the Page Layout tab, select all the active cells, then on the ribbon click on “Print Area” and then “Set Print Area”. Only the selected cells will be printed when the time comes, so don’t forget to change this setting if you add rows or columns.

If you intend to paste the active cells into a Word or Publisher document or PowerPoint presentation and worry that end users will be able to change your data, then it is worth considering pasting your data as a picture rather than Excel data which can be altered.
When you right-click prior to pasting you should see this screen:
If you select the circled option (with a picture on the clipboard), your data will be pasted as an image.



We have in the past touched on the fact that more recent versions of Office applications are often more advanced than older versions and some of the newer features are not backwards-compatible. This is particularly true of Excel, where new formulas (or formulae to be more pedantic) are introduced with most new versions.

This was brought home to me a couple of years ago. On my home computer I had prepared a spreadsheet for use on the laptop used for scanning the new membership cards at the monthly meetings, and tested it quite extensively. I took it on a flash drive and loaded it on to the U3A laptop but it did not work. I tried it on my own laptop, which I had with me, and it worked well there as well. I ended up taking the U3A laptop home with me to see what the problem was.

I looked up the error code and discovered that it meant that Excel did not recognise the formula I was using:
=IFERROR(IFS($A2=" ",” ",$B2="NO",VLOOKUP($A2,Members!$B:$S,4,0),$B2="YES",VLOOKUP($C2,Members!$A:$S,5,0)),” ")
A little further research revealed that the IFS function in my formula was not introduced until Excel 2019 (which I have on my PC and my laptop) so was not recognised in the Excel 2016 on the U3A laptop.

So how did I solve this problem? I could have changed the formula to 3 nested IF functions instead of 1 IFS function, but this would have made the formula much more complicated (believe it or not!) and an eBay purchase of Office 2019 for the U3A laptop seemed a much better idea at £3.49!

THE END

Additional recommended resources:

For a comprehensive guide to Excel formulas and functions, with examples and explanations of every formula, download the ***Excel Functions Bible*** from www.rondebruin.nl/efb/efb.htm (a Dutch site, but it is in English).

Whatever your Excel problem the chances are that you will be able to find at least help, if not the answer, at www.mrexcel.com.

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