

CHAPTER 1

InFocus

GETTING TO KNOW EXCEL 2016

Microsoft Excel is a *spreadsheet* application that is usually part of a suite of Microsoft applications, known as **Microsoft Office**.

You can use Excel for all sorts of tasks involving numbers such as budgeting, sales analysis, forecasting, charting and graphing and much more. Excel is a tool used to perform calculations with numbers, so virtually any task that requires calculation and number crunching can be setup and performed in Excel.

Before you start creating anything, it is worth taking some time to become familiar with the Excel environment and its features.

In this session you will:

- ✓ gain an understanding of choosing spreadsheet software
- ✓ learn how to start **Excel** from the desktop in **Windows 10**
- ✓ gain an understanding of the **Excel Start** screen
- ✓ gain an understanding of how **Excel** works
- ✓ learn how to use the ribbon to access commands
- ✓ learn how to use ribbon key tip badges
- ✓ gain an understanding of **Backstage** view in **Excel**
- ✓ learn how to use shortcut menus
- ✓ gain an understanding of how dialog boxes work
- ✓ gain an understanding of the **Quick Access Toolbar**
- ✓ gain an understanding of the status bar
- ✓ learn how to exit correctly and safely from **Excel**.

CHOOSING SPREADSHEET SOFTWARE

Spreadsheet software allows you to create and work with spreadsheets as well as a number of elements that make up spreadsheets such as formulas and functions. These days there are a

range of software options for working with spreadsheets and it's important to consider which one works best for you.

Microsoft Excel

Microsoft Excel is a software program designed to create and work with spreadsheets. It was created by Microsoft and is part of the suite of products known as Microsoft Office. It was originally launched in the 1980s and today is one of, if not the most popular program for creating and working with spreadsheets. You can use Microsoft Excel to create and save spreadsheets, work with formulas, graphs, pivot tables and the like. While Microsoft Excel is primarily a desktop application (meaning it is installed and run on your desktop computer), Microsoft also provides Excel Online and the Excel mobile app. Excel Online can be accessed and used from the browser window if any device connected to the internet, while the Excel mobile app can be downloaded and used on any mobile device such as a mobile phone or tablet.

Web Based Spreadsheet Processing Apps

There are a number of different word processing apps that can be used online. For example;

Google Sheets - Google Sheets is used in conjunction with Google Drive which is Google's cloud file storage service. You can sign up for Google Drive for free and you will receive 15 GB of storage allowance which is used across Google Drive, Gmail and Google Photos. If you require more storage you can pay an annual or monthly fee to receive more storage. Google Sheets is a free app created for working with spreadsheets and is available to use online or as a downloadable app on your mobile device. It is part of Google's office suite which includes Google Docs and Google Slides. If you wish to use Google Sheets you must first sign up using a Gmail account. Once you have signed up and signed in you are ready to start creating and working on spreadsheets. Google Sheets contains less advanced features and tools than Microsoft Excel, however it does allow you to get Add-ons which are apps that you can use in conjunction with the program you are using in order to increase functionality.

Device Specific Spreadsheet Processing Apps

Apple devices usually come with a spreadsheet processing app that can only be used on Apple devices. Currently, Apple Mac computers, iPhone and iPads come with the **Apple Numbers** app. You can use this app to create spreadsheets, graphs, tables and the like. Mobile android devices (any mobile device, laptop or desktop computer not created by Apple) may also contain spreadsheet apps by default. For example, Samsung phones come with the Polaris office suite which can be used to work with Microsoft Excel files among other file types from the Microsoft suite.

Choosing The Right Software For You

Before you begin creating and working with spreadsheets, it's important to decide which software program is most appropriate for your needs. If you want to create a complex spreadsheet or one for professional use it is best to use a program like Microsoft Excel that contains more advanced formatting and editing features. If you want to create a less complex spreadsheet that doesn't require much formatting, a program like Google Sheets may be more suitable. If you don't have access to a laptop or desktop computer, you can use one of the many mobile spreadsheets apps as discussed above. Remember that spreadsheet software can be used in conjunction with each other. For example, you may begin creating a file in Google Sheets before downloading it as a Microsoft Excel file so you can open it in Excel where you can use more advanced formatting and editing features before importing it again to Google Sheets for sharing with others.

STARTING EXCEL FROM THE DESKTOP

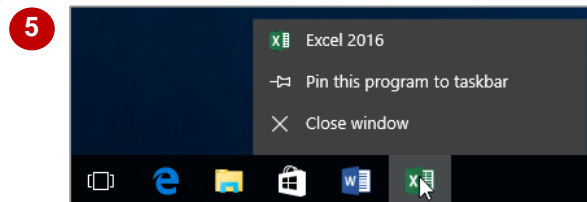
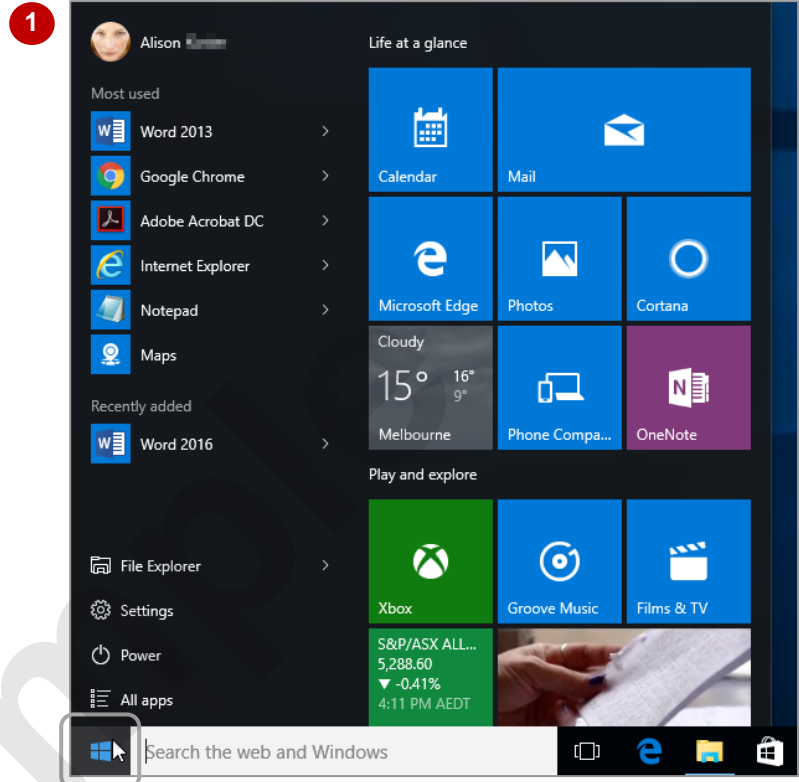
To create or edit a workbook, the first thing you must do is start Excel. The first time you use Excel you will need to open it from the taskbar **Search the web and Windows** bar or the **All**

apps list in the **Start** menu. You can then choose to pin it to the **Start** menu or the taskbar so that you can access it more quickly and easily the next time you use it.

Try This Yourself:

Before you begin, ensure that your computer is switched on and the desktop is displayed...

- 1 If there is no **Excel** icon in the taskbar at the bottom of the desktop, click on the **Windows** icon in the taskbar, as shown, to display the **Start** menu
- 2 Click on **All apps** to display a list of all the apps on your computer
- 3 Scroll down to the **E** section *Excel 2016 is listed here...*
- 4 Click on **Excel 2016** to start Excel
- 5 Right-click on the Excel icon in the taskbar to display a menu of options, as shown, then select **Pin this program to taskbar**
You can now click on this icon to open Excel from the desktop. This icon will remain in the taskbar unless you remove it...
- 6 Repeat step 5 to select **Close window** to close Excel
- 7 Click on the Excel icon in the taskbar to open **Excel** again



For Your Reference...

To **add** an **Excel icon** to the **desktop taskbar**:

1. Display the **Start** menu, then click on **All apps**
2. Right-click on **Excel 2016**
3. Select **Pin to taskbar**

Handy to Know...

- You can start Excel by clicking in the taskbar **Search...** bar, typing **excel**, then clicking on Excel in the list of search results.
- You can pin Excel to the **Start** menu by displaying the **All apps** list, right-clicking on **Excel 2016** and selecting **Pin to Start**.

UNDERSTANDING THE EXCEL START SCREEN

Unless you start Excel with a specific data file, **Excel 2016** will open with the Excel **start** screen displayed. This acts as a gateway into Excel and from this initial screen you can choose what kind

of workbook you want to work with. You can choose to work with a recent file, open an existing file, or create a new file using the available templates.

The Excel 2016 Start Screen

In Microsoft Excel your data is stored in a file referred to as a workbook.

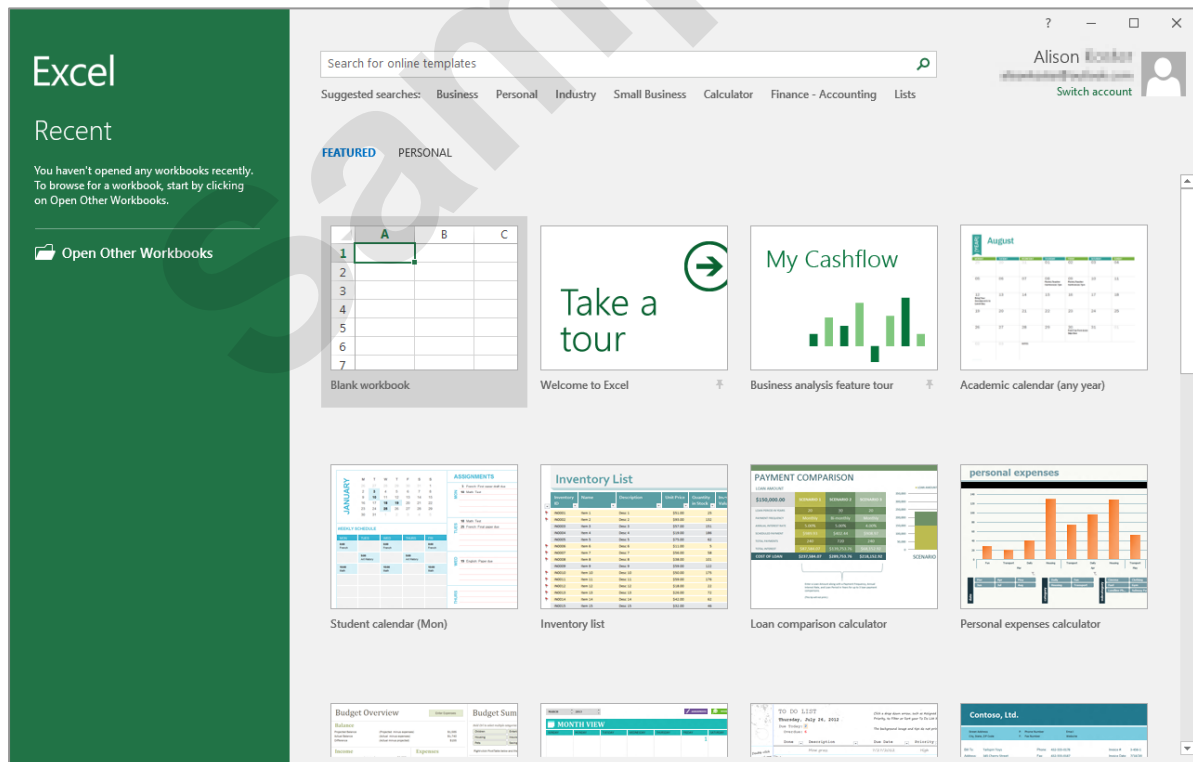
The Excel 2016 start screen is very helpful if you want to quickly access files you have worked on recently or create a new workbook file based on one of the available templates (including the default Blank workbook template). It acts as a gateway into the program.

If you have already worked on workbooks, a list of recent files will display below **Recent** in the green pane to the left of the screen. If you haven't worked on any workbooks yet you can open existing files by clicking on **Open Other Documents** (below **Recent** in the left green pane). This allows you to open an existing workbook file from your computer or **OneDrive**.

The right side of the start screen displays thumbnail previews of available templates you can use to create a new workbook. It also contains the **Search for online templates** box, which you can use to search the internet for additional templates.

Templates are simply layouts that have already been created which you can customise to suit your needs and then enter relevant data. If you want to start with a clean slate you can choose the **Blank workbook** template – you'll probably find this is the one you'll use the most.

In the top right corner of the start screen you'll see information about the account you've used to sign into Windows, as well as commands such as **Microsoft Excel Help**, **Minimise**, **Restore Down** (or **Maximise**) and **Close**.



The **start** screen will only display when you launch the **Excel 2016** application directly – that is, by clicking on **Excel 2016** in the **All apps** list in the **Start** menu, searching for Excel and clicking on it in the search results, or clicking on the taskbar icon if the application has been pinned to the desktop taskbar.

Excel 2016 can also be started by double-clicking on a workbook file in **File Explorer**. When this occurs **Excel 2016** will bypass the **start** screen shown above and open the workbook directly.

HOW EXCEL 2016 WORKS

For a new user the Microsoft Excel 2016 screen can seem intimidating. However, you'll soon see that it is made up of three key areas. The data you type is placed on a **worksheet**. The data

within the worksheet can be manipulated and changed using commands on the **ribbon**. The worksheet is part of a larger entity known as a workbook which is controlled on the **Backstage**.

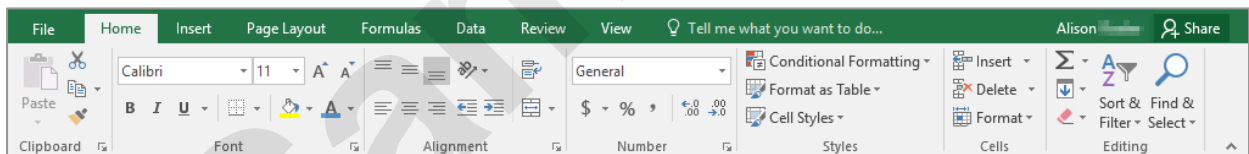
The Worksheet

A worksheet appears as a number of rows and columns which form squares known as **cells**. Everything you type in Excel is entered into these cells. In the simple business plan shown to the right there are numbers and words entered into a worksheet. **Formulas** are also entered that automatically perform calculations. The **worksheet** is part of a larger entity known as a **workbook** – workbooks can be filed away for future use or for sharing and can also be printed.

	Year 1	Year 2	Year 3	Year 4	Year 5
Income					
Sales	4000	4230	5000	5500	6100
Royalties	1200	1200	1200	1200	1200
Grants	5500	6000	3000	4000	4500
Total Income	10700	11430	9200	10700	11800
Expenses					
Office	250	280	300	320	360
Travel	6200	5800	6100	7000	5200
Sundries	100	150	200	240	300
Total Expenses	6550	6230	6600	7560	5860
Profit	4150	5200	2600	3140	5940

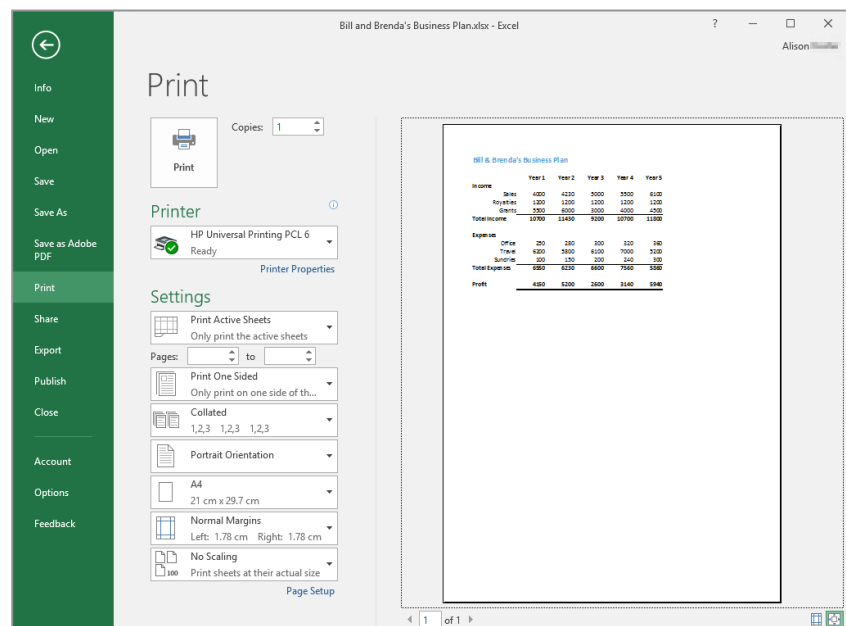
The Ribbon

When you need to do something with the data in a worksheet, such as format it, colour it, analyse it, move it, copy it, and much more, you'll find all of the relevant commands on the **ribbon**. The ribbon has commands organised thematically using a series of tabs across the top.



The Backstage View

When you want to do something with the data in your workbook, such as save it so that you can access it again later, print it, share it with a colleague, send it to your boss, protect it from prying eyes, or whatever, you will need to access the **Microsoft Office Backstage** area of Microsoft Excel. The **Backstage** is accessed using the **FILE** tab on the ribbon. Rather than offering you commands on a ribbon, **Backstage** occupies the entire screen and has a series of options down the left side. Here the **Print** option is active, and that is why you can see a preview of the worksheet and a series of print-related options.



USING THE RIBBON

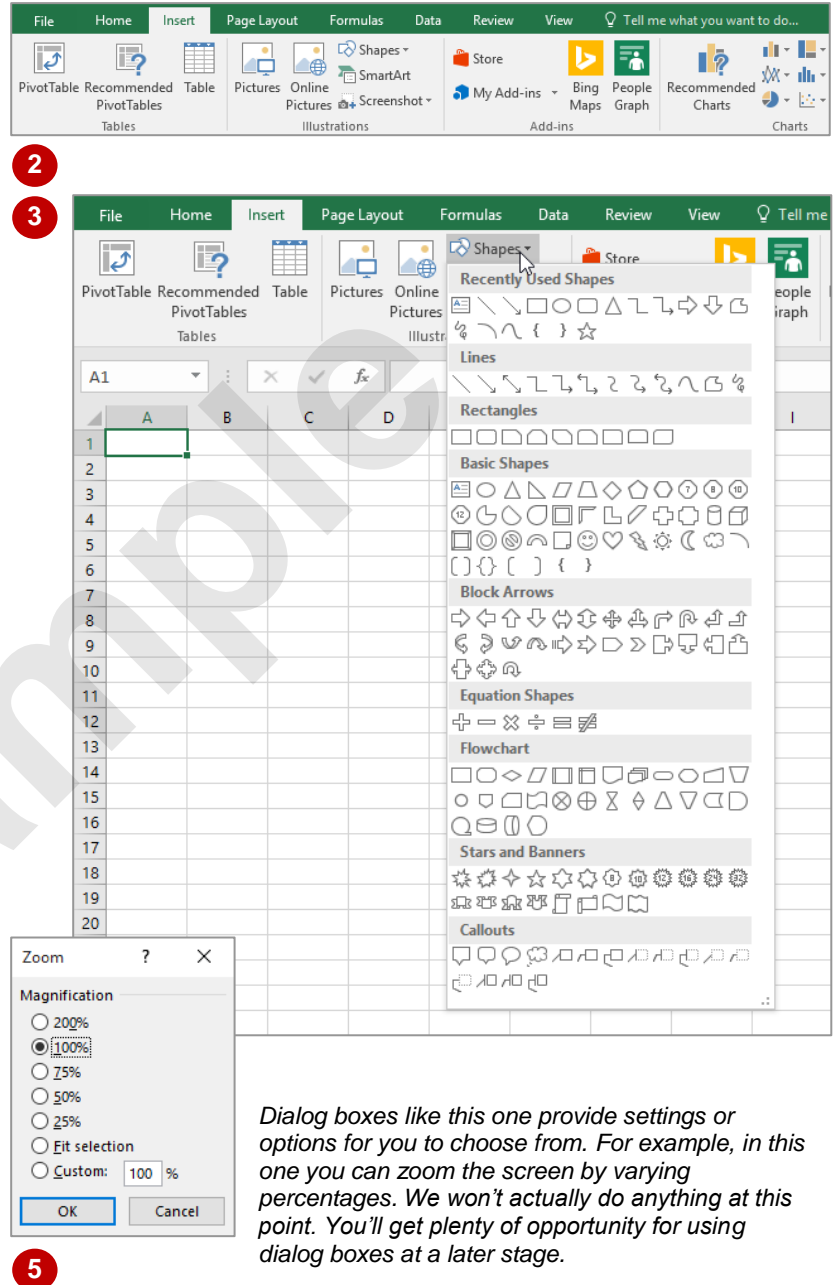
The **ribbon** is the command centre for Microsoft Excel. It provides a series of **commands** organised into **groups** and placed on relevant **tabs**. Tabs are activated by clicking on their

name to display the command groups. **Commands** are activated by clicking on a button, tool or gallery option. Everything you could possibly want to do in Excel will be found somewhere on this ribbon.

Try This Yourself:

Before you begin ensure Excel has started and you have a blank workbook open...

- 1 Examine the **groups** on the **Home** tab of the ribbon
These are the most commonly used commands, including copy and paste, font and number formatting, styles and editing...
- 2 Click on the **Insert** tab
The commands on this tab are used to create tables, illustrations, charts, headers and footers, text objects and symbols...
- 3 Click on **Shapes** in the **Illustrations** group
A gallery of shapes will appear which can be inserted into the worksheet...
- 4 Click on some of the other **tabs** across the top of the ribbon (**Page Layout**, **Formulas**, etc.) and examine the commands on them
Some of these open "dialog boxes"...
- 5 On the **View** tab, click on **Zoom** in the **Zoom** group to display the **Zoom** dialog box
- 6 Click on **[Cancel]** then click on the **Home** tab



Dialog boxes like this one provide settings or options for you to choose from. For example, in this one you can zoom the screen by varying percentages. We won't actually do anything at this point. You'll get plenty of opportunity for using dialog boxes at a later stage.

For Your Reference...

To **use** the **ribbon**:

1. Click on a **tab** to display the commands
2. Click on a **button** to activate a **command**, display a **gallery**, or display a **dialog box**

Handy to Know...

- Additional tabs known as **contextual tabs** appear in specific circumstances. For example, if you insert a picture, the **Picture Tools: Format** tab will appear. This provides quick access to all of the tools you may need in order to modify and work with the picture.

USING RIBBON KEY TIPS

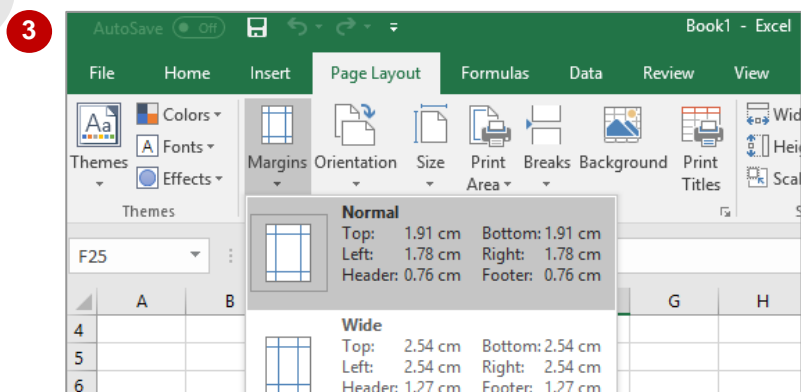
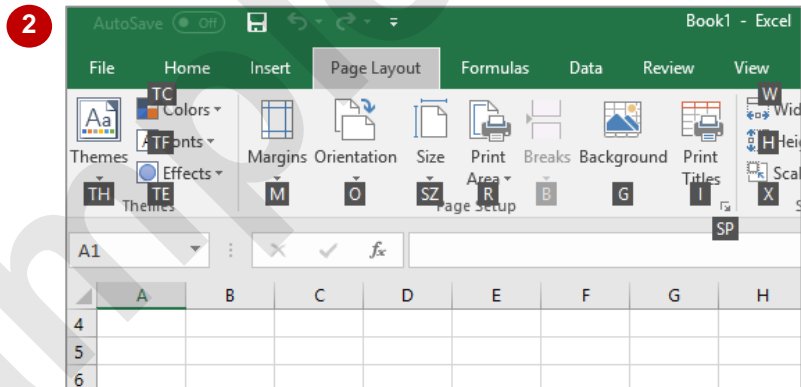
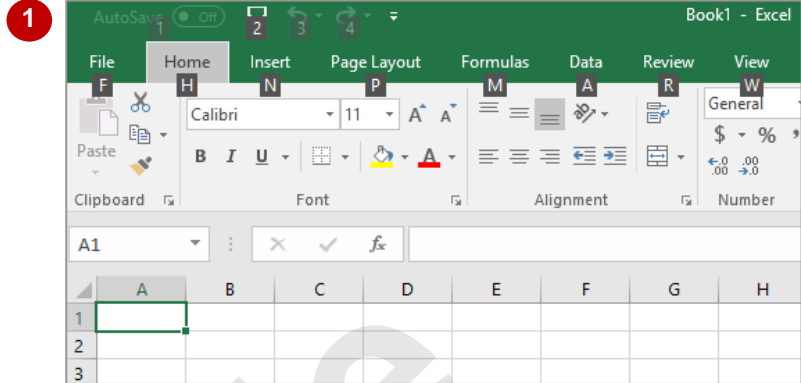
Usually one would access commands on the ribbon by clicking on them with a mouse, however you can also use the keyboard. When you press the **Alt** key on the keyboard

alphabetical labels, known as **KeyTip badges**, appear on the ribbon. Pressing a key on the keyboard will activate the corresponding command just as if you'd clicked on the command.

Try This Yourself:

Before starting this ensure Microsoft Excel 2016 has started...

- 1 Press **Alt** to display the KeyTip badges for the tabs
- 2 Press **P** to display the **Page Layout** tab and to see the KeyTip badges for these commands
- 3 Press **M** to display the **Margins** options
*You could use the **↑** or **↓** keys to move through the options, or **A** to see Custom Margins...*
- 4 Press **Esc** twice to return to the **Tab** level of KeyTips
- 5 Press **M** to access the **Formulas** tab
- 6 Press **Tab** five times and notice that **Logical** is selected
- 7 Press **Enter** to see a list of **Logical** functions, then press **↓** several times to move down the menu
- 8 Press **Esc** to abort the operation



For Your Reference...

To use **KeyTip Badges** to access commands:

1. Press **Alt** to display the **KeyTip Badges**
2. Press the letter key of the command or tab that you want to select

Handy to Know...

- You can still use the **shortcut keys** for menu commands that were available in previous versions of Office. For example, **Ctrl + B** applies bold to selected text.

UNDERSTANDING THE BACKSTAGE VIEW

The ribbon lets you work on the content in a document so that you can add more content, format it, insert pictures into it, copy it, and much more. The **Backstage** view, which is accessed

using the **File** tab, lets you do something with the content you create, such as save it for later use, print it on paper, send it via email, and more by using the options found in **Backstage** view.

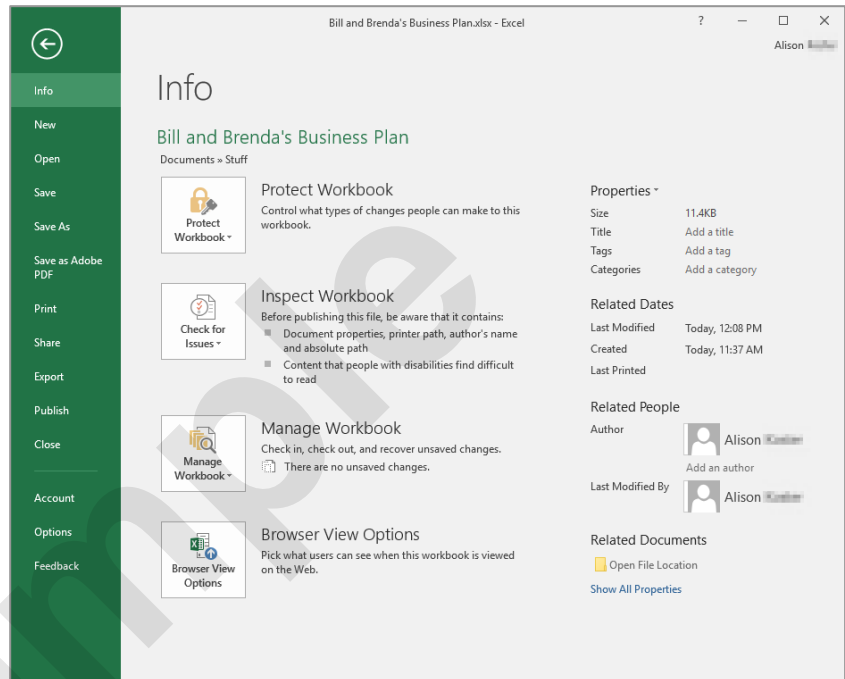
The Backstage View

The **File** tab on the ribbon is not a normal tab. Clicking on the **File** tab launches a mini-program within Microsoft Excel known as **Backstage** view. **Backstage**, as it's known for short, occupies the entire screen.

At the left of the **Backstage** is a navigation pane which is made up of **tabs**. These tabs provide you with access to various operations, such as printing, saving and sharing. They can also provide you with information about your workbook such as the file size.

Clicking on one of these tabs displays a range of options associated with the particular operation.

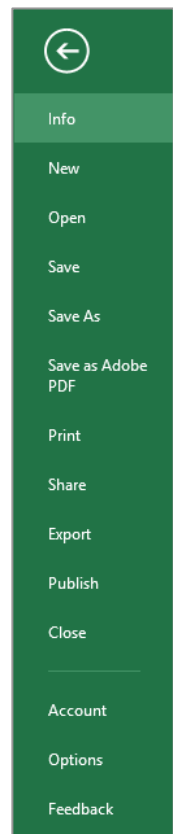
The whole underlying purpose of **Backstage** is to let you protect your data, share it with others, and provide you with valuable information about your workbook. Depending on what type of workbook it is and what has been done to it, different information may display when the **Info** tab is selected.



Backstage Tabs

The **Backstage** tabs provide more options for working with a document.

Info	Provides status information about the current workbook and lets you manage versions and permissions.
New	Lets you create a new workbook and provides access to a gallery of inbuilt templates and ready access to a range of online templates.
Open	Provides a list of recent workbooks as well as the option to search through your Computer, OneDrive or other place, to find what you are looking for.
Save	Saves your current workbook (if already saved to a location) or prompts you to save to a location.
Save As	Allows you to name your workbook and save it to a location.
Print	Allows you to print the current workbook and preview it.
Share	Allows you to share your workbook with other people via email, online presentation, blog or Cloud (OneDrive).
Export	Allows you to create a PDF/XPS document or change the file type of your workbook.
Close	Closes your current workbook.
Account	Contains product and user information.
Options	Presents you with a range of options which assist in the creation and editing of your workbook.
Feedback	Allows you to provide Microsoft with feedback regarding Excel 2016.



USING SHORTCUT MENUS

In addition to the ribbon, Excel also features **shortcut menus** (also known as **contextual menus**) that appear when you right-click in an area on the screen or on an object. The content

of the menu will vary depending upon where you click. **Shortcut menus** provide an alternative (and usually a quicker) way to searching the ribbon to find a specific operation or command.

Try This Yourself:

Before you begin ensure Excel has started and you have a blank workbook open...

- 1 Click in cell **B2** (column **B**, row **2**) in the worksheet, then click with the right mouse button to display a shortcut menu

Because you have clicked in a worksheet cell the menu includes a number of options specific to what can be done in and with the cell...

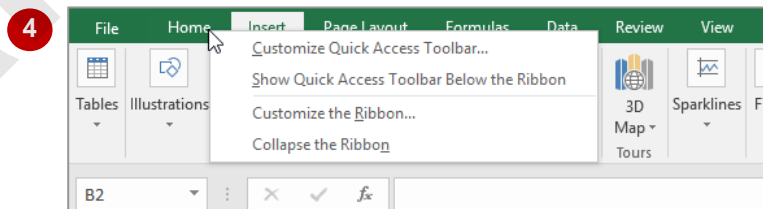
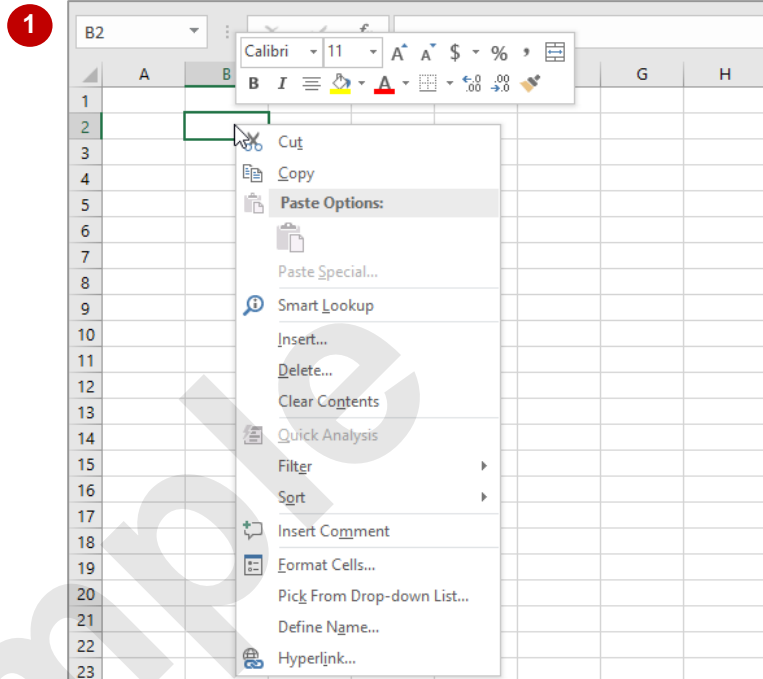
- 2 Click anywhere else on the worksheet with the left mouse button to close the shortcut menu

- 3 Point to any of the tabs on the ribbon

- 4 Right-click on the tab to display a shortcut menu

This menu differs from the previous one and displays toolbar and ribbon options instead of text options. Excel has made an educated guess about what you want to do based upon what you have clicked...

- 5 Click anywhere in the worksheet with the left mouse button to close the shortcut menu



For Your Reference...

To **display a shortcut menu**:

1. Point to the object or area of the screen on which you want to perform an operation
2. Right-click to display the shortcut menu

Handy to Know...

- Once a **shortcut menu** appears, the options in it are selected by clicking on them with the left mouse button, or pressing the letter underlined in the menu option.

UNDERSTANDING DIALOG BOXES

Dialog boxes contain a series of controls that are used to adjust settings for a particular aspect of a worksheet or cell. They appear either when you click on a **dialog box launcher** at the bottom

right corner of a ribbon group, or when you click on a command that displays a dialog box. Dialog boxes are often used for adjusting some of the more advanced aspects of a worksheet or cell.

Typical Dialog Box Controls

Dialog boxes have various tools to help you perform tasks. These tools are known as **controls** and some typical ones are shown below.

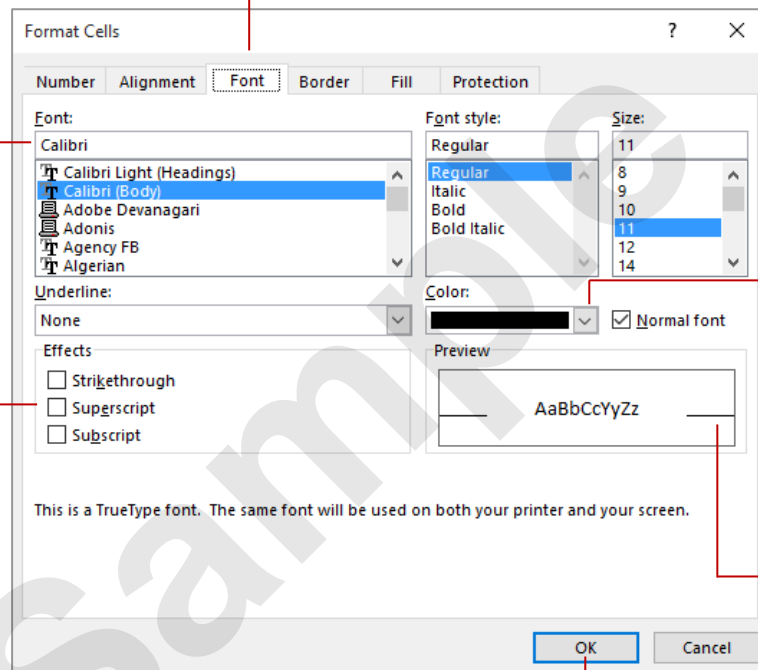
Tabs are used to provide more settings on the one dialog box.

Text boxes are used to enter details such as font or size.

Check boxes turn settings either on or off. When on they display a tick and therefore these controls are also known as tick boxes.

Drop arrows provide a list of options for the text box when the arrow is clicked. The list "drops down" from the arrow.

Preview boxes provide a preview of what the selected settings will look like.



Command buttons provide a means of saving the changed settings [OK], or closing the dialog box without accepting any changes made [Cancel].

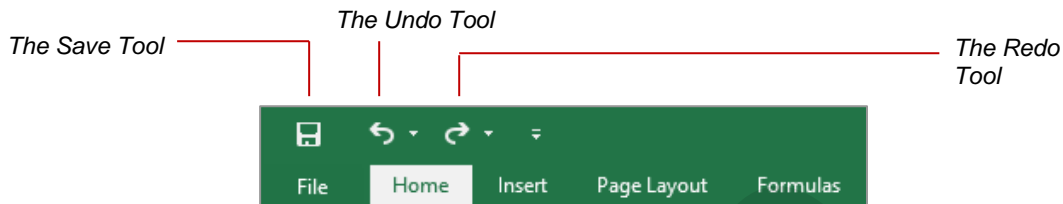
UNDERSTANDING THE QUICK ACCESS TOOLBAR

The **Quick Access Toolbar**, also known as the **QAT**, is a small toolbar that appears at the top left corner of the Excel window. It is designed to provide access to the command tools you use

most frequently, such as **Save**. By default the **QAT** also contains the **Undo** and **Redo** buttons. You can add buttons to the **Quick Access Toolbar** to make finding your favourite commands easier.

The Quick Access Toolbar

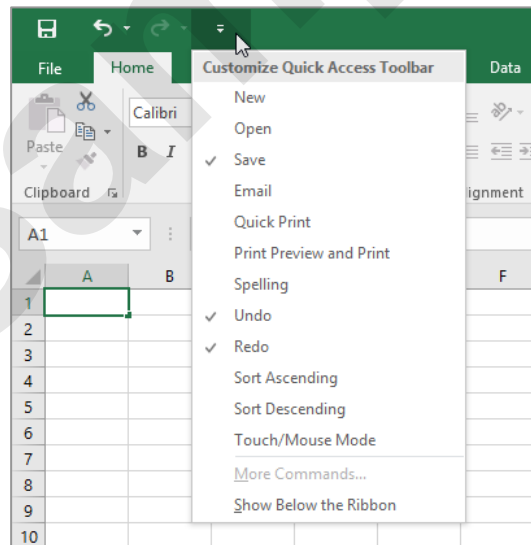
The **Quick Access Toolbar** is positioned at the top left corner of the Excel 2016 screen. In its default state, it includes the **Save** tool, the **Undo** tool and the **Redo** tool.



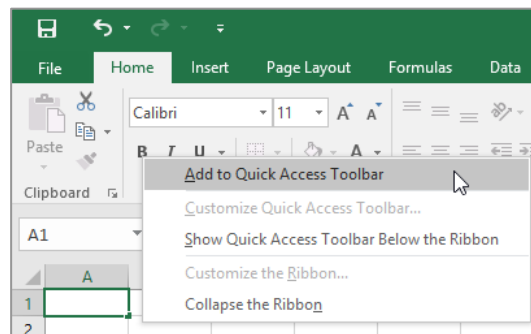
Customising the Quick Access Toolbar

Appearing immediately to the right of the **Quick Access Toolbar** is the **Customise Quick Access Toolbar** tool. Clicking on this tool displays a list of commonly used commands that you can add to the toolbar. You can select the items that you want to add from the list by clicking on them. The ticks that appear to the left of the menu options show which options already appear on the **Quick Access Toolbar**.

You can also add commands to the **Quick Access Toolbar** by right clicking on a command in the ribbon and selecting **Add to Quick Access Toolbar**.



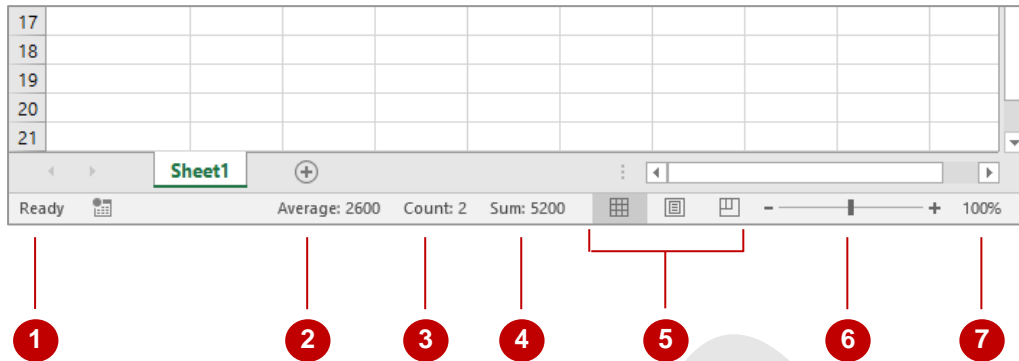
You can also add commands to the **Quick Access Toolbar** by right clicking on a command in the ribbon and selecting **Add to Quick Access Toolbar**.



UNDERSTANDING THE STATUS BAR

The **status bar** is the bar across the bottom of the Excel window. It is a very useful aid that tells you the current status of Excel, performs quick calculations on the selected range in the

worksheet, and allows you to zoom in and out of the worksheet. It also includes tools that can change the worksheet view. You can customise the status bar to change the information shown.



- 1 Status Indicator** The **Status Indicator** indicates the current status of Excel and the worksheet. The most common indicator you'll see here is **Ready** indicating that Excel is ready and waiting for you to do something.
- 2 Average** This tells you the average value in the cells currently selected in the worksheet – providing the cells contain numeric data. Selected cells are the ones that have the active cell indicator around them and are commonly referred to as a **range** of cells. Obviously for a calculation to be performed there will need to be numbers in the active range of cells.
- 3 Count** This tells you how many non-empty cells are in the cells currently selected in the worksheet.
- 4 Sum** This tells you the sum total of the cells currently selected in the worksheet – providing the cells contain numeric data.
- 5 View Tools** The **Worksheet View** tools allow you to change the view of the worksheet. You can select from **Normal**, **Page Layout** and **Page Break Preview**.
- 6 Zoom Slider** The **Zoom Slider** indicates the current zoom level, where the centre mark indicates 100%. You can either drag the marker to the left or right, or click on a specific point of the slider to set a zoom percentage. You can also click on the buttons at either end of the slider to zoom in or zoom out.
- 7 Zoom Level** This button displays the current zoom percentage. If you click on the button, the **Zoom** dialog box will appear so that you can select a specific zoom percentage.

What appears on the status bar can vary greatly. The status bar on your screen may not exactly match the example shown above.

One way you can change your status bar is by right-clicking on the status bar itself and selecting from the shortcut menu any additional tools you may want to add to it.