



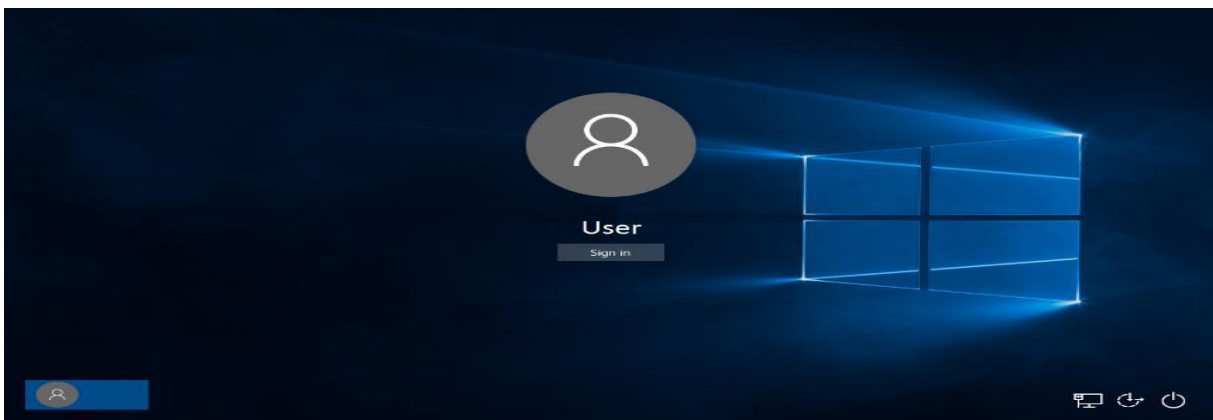
Lecture two: Computer Fundamentals

Getting To The Desktop

1. To switch on a computer you use the power button, this is a universal symbol for how to power on devices. When you press this button your computer will start “booting up”. This means your computer is getting ready to be used and can take anything from 10 seconds to 5 minutes depending on the computer.
2. Once the computer powers up after a short period of time you will come to a screen with a random artistic image as the background.



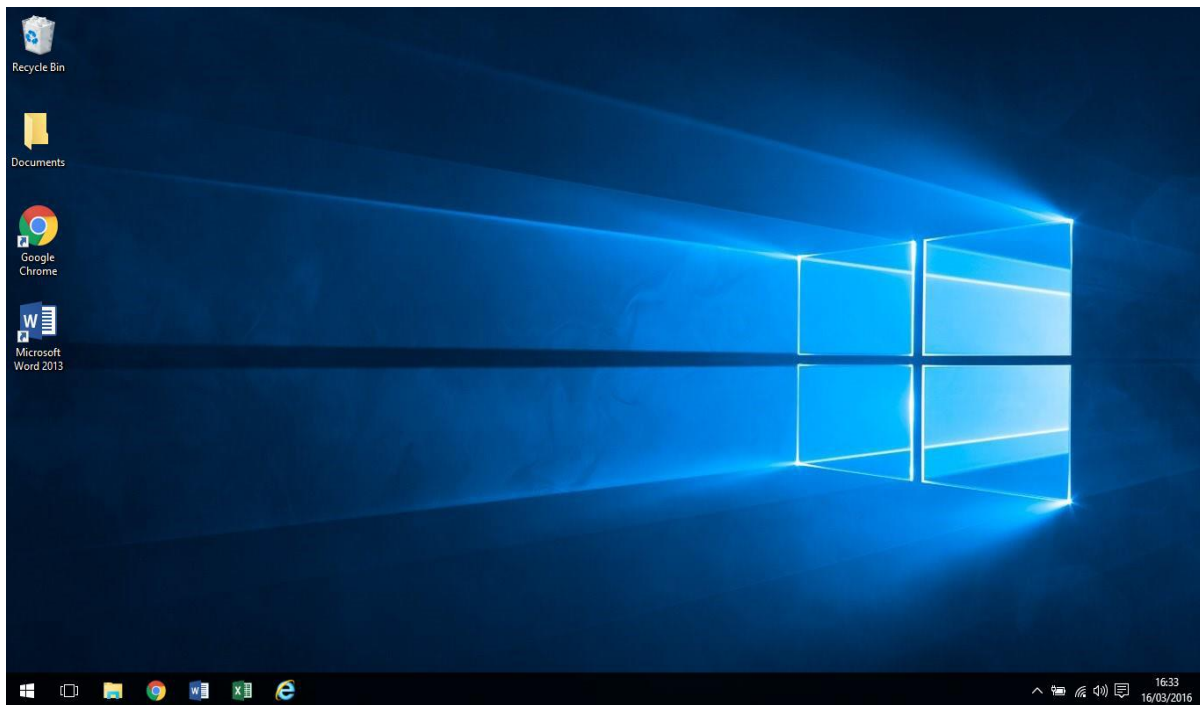
3. Press the left mouse button once and it will disappear and be replaced with this. Click on “Sign in” with the left mouse button. If you have a password type it into the box that appears and click the arrow button. (If there isn’t a password created it will just sign in straight away).





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4. Windows will now load up and you will eventually come to a screen called the **Desktop**.



The Desktop is split into two areas. The strip at the bottom, with the clock to the right and the square, window shaped **Start button** to the left, is called the **Taskbar**. We will explore this area in a different section. But here's a closer look at it. The rest of the Desktop is the space where all your programmes will appear when you start them up. This space contains default background wallpaper, but it can also contain shortcuts to programmes, documents and folders.

Desktops can be customized and can look different depending on which computer you're using. For example a public network like the library may have a computer setup to use their own logo on the Desktop and use different software to access the internet. What is best to do is take your time to familiarize yourself with the computer you are using.

Imagine your Desktop is just that the top of a desk, computers are designed around the working world the office in particular. The Desktop was designed so you have everything at hand just like sitting at your desk.





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Icons and folders

You can customise your Desktop by adding Icons or keeping the files you are currently working with on the Desktop. But for the moment you will have to get familiar what these Icons and files look like.

Icons are symbols for what programs you want to launch from your Desktop, There should be some Icons and folders on your Desktop

Let's have a look at some Icons you may have in more detail:

These are **Web Browsers** we use for browsing the internet so we can visit websites and search for information – we'll look at these in detail in another lesson.



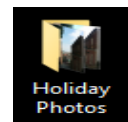
Check the computer you are using to see what is on the **Desktop**, it may even have them all

There are also other Icons, you can create Icons “ **Also Known As Shortcuts**” they are shortcuts on the Desktop so we don't have to delve deeper into the computer to find the programs we want to launch.

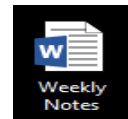
This is an Icon and shortcut to access **Microsoft Word**, “A word processing programme for creating CVs, writing letters, and creating brochures



The Desktop you are using may have folders; folders are usually used to keep a bunch of files all in the one place and can be a good way of organising all your documents.



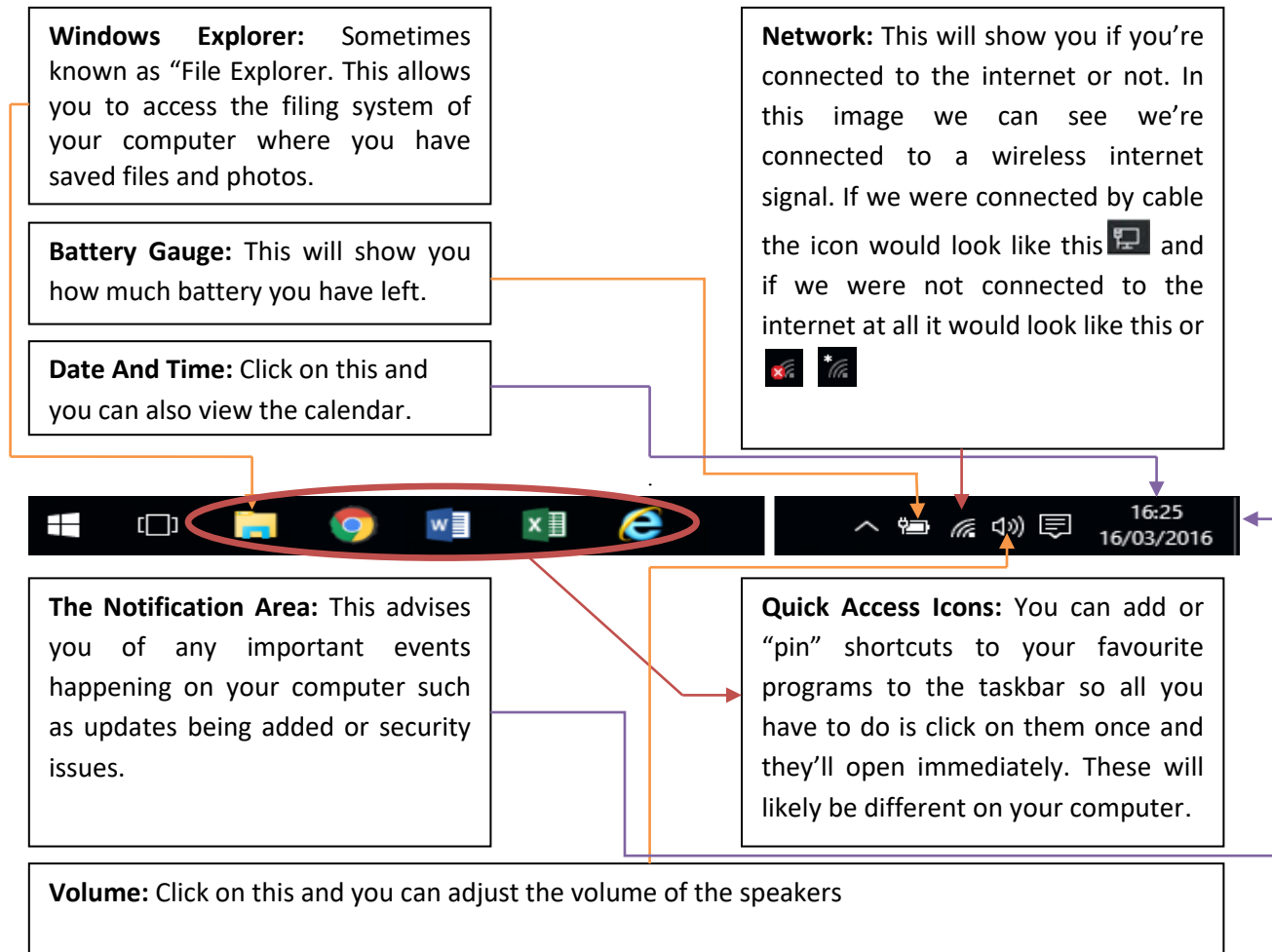
This is a Microsoft Word File, a file you create when using Microsoft Word. For example if you create a letter called Hello Katie using Microsoft Word and then saved it on your





The Taskbar

The **Taskbar** is the thin strip that runs across the bottom of your screen. It is split into a number of different areas: a Start button, Quick Launch icons, a notification area, and a clock. All other areas are the Taskbar itself. The image below shows the left hand side of the taskbar.



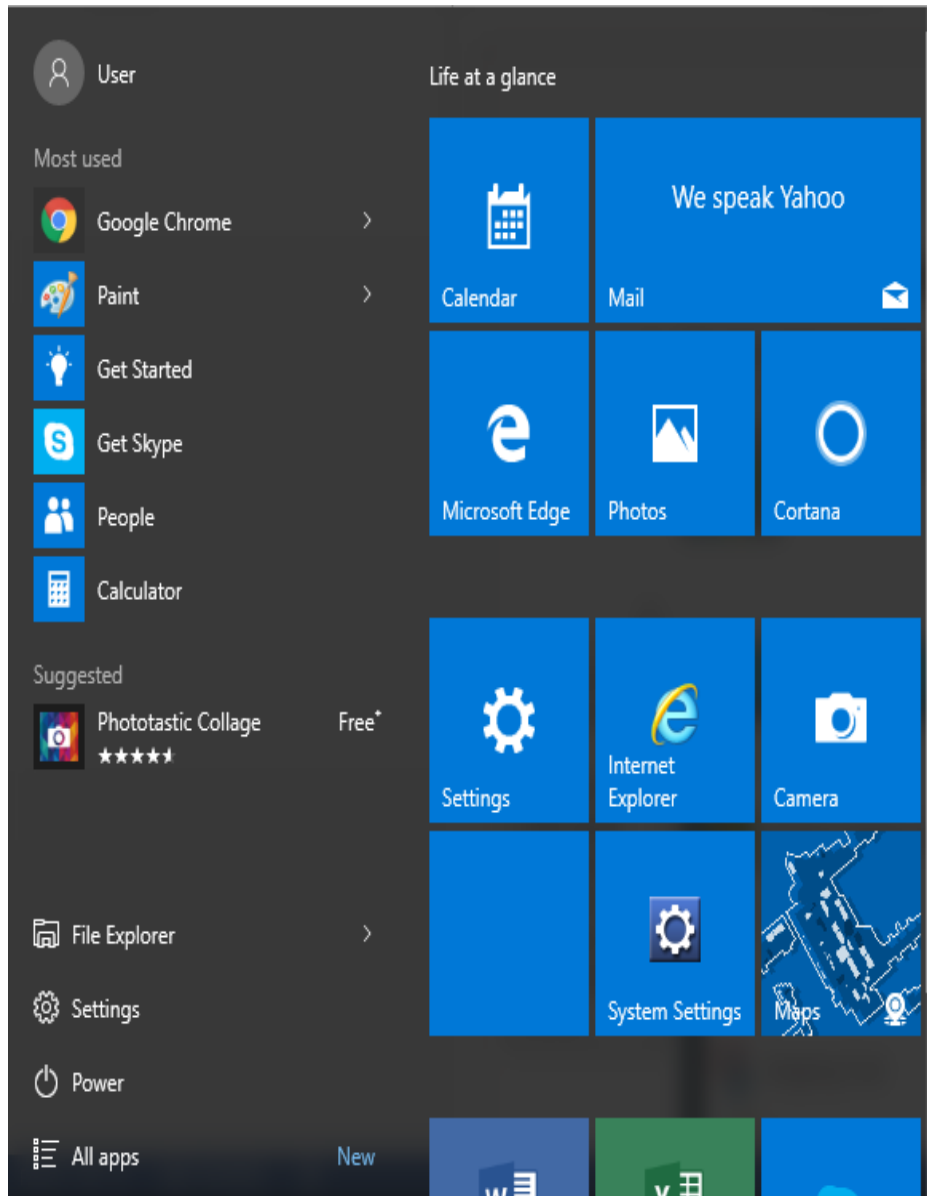


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The Start Menu

The Start Menu is on the Taskbar at the bottom left hand corner of your screen and is where we can access more programs, access settings and turn off your computer.

Left click on Start Menu Icon bottom left of your screen and the start menu will appear.



File Explorer: This is where you access the filing system of your computer to locate files and folders. You can also access the DVD and Memory Sticks from here.

Power: You can shut down, restart or even make your computer go to sleep with this button.

All apps: This where you can access all the programs/apps on your computer.

Programs: you use the most appear in this pane but can also be pinned here and here on the Start Menu in named groups

Settings: Where you can change the settings of your computer.

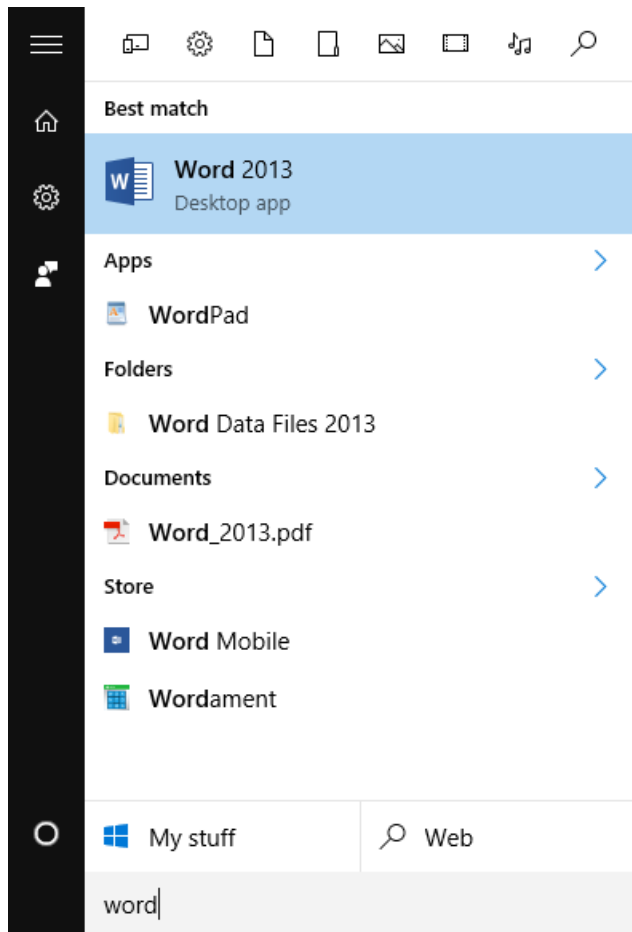
Life at a glance: This is where you access things like your calendar, photos, internet browser and email apps.

User: This displays the name of the user logged into the computer.



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You can search your computer for a certain program or specific file by simply typing in the name of it after you've clicked on the start button. Type **Word** now and the computer will search for it. A list should appear with "Microsoft Word" as the first result. If you were to click on this it will open up the program (we'll be doing this later).



Press the **ESC** key at the top right of your keyboard once to close the start menu.



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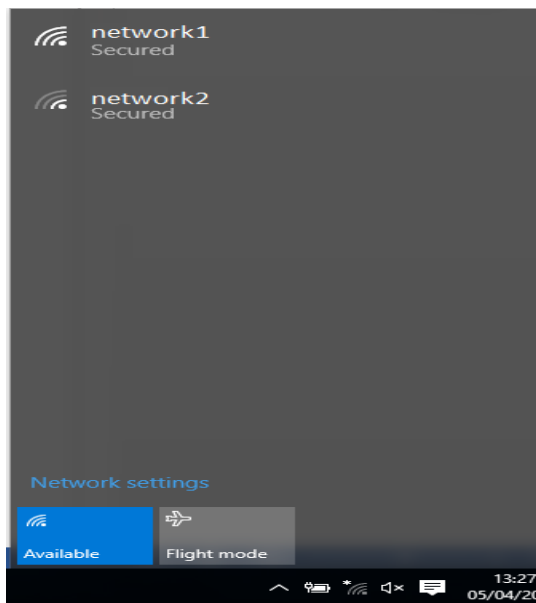
Connecting To Wi-Fi

Now will look at connecting to the internet using Wi-Fi or wireless internet. Before going ahead make sure you are in an area where there is Wi-Fi available, you know the name of the network and that you have the password to access it.

Click once on the wireless icon at the bottom right of the taskbar.



Click once on the network you want to access.

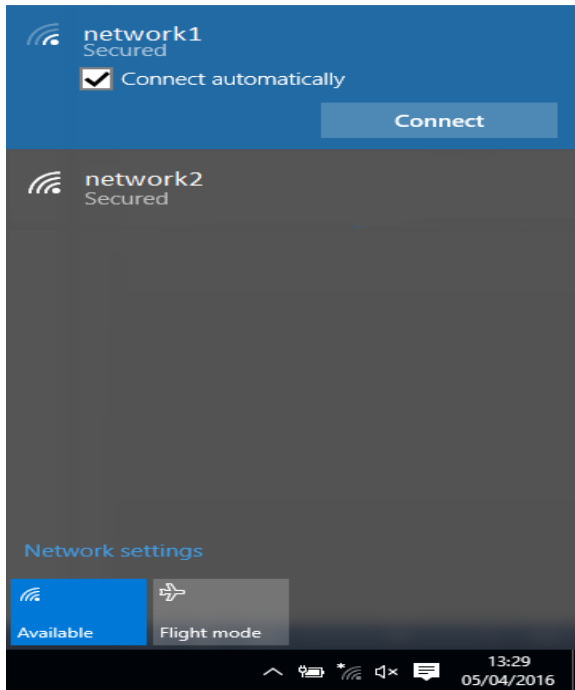


Click once on “Connect”.

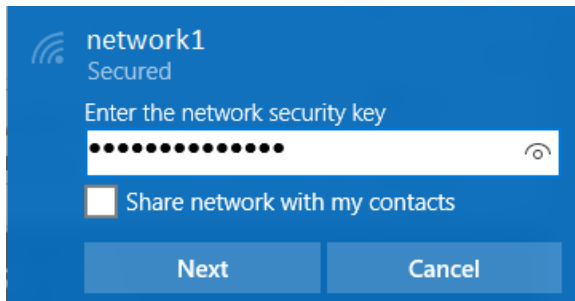
(Keep the box for “Connect Automatically” checked as it means you won’t have to do this procedure again to connect to this network.) It may say “Checking Network Requirements” for a few seconds.



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Type in the password (sometimes known as “The Key” or the “WEP”). You will see that it comes up as little dots. This is for security so that no one looking over your shoulder can see what you’re typing. The click on “Next”.



If all the details are correct it should connect in a few seconds.



Press the “ESC” key at the top right of the keyboard to come out of the network connections. You are now connected to the internet!



AI: Image Processing

What is **image**?

A picture that is produced by a camera, artist, mirror, etc.

How Does Computer **Understand** Images?

A computer sees an image as 0s and 1s.

Pixel is the smallest unit in an image.

What does **image processing** mean?

Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some **useful information** from it.

<https://web.stanford.edu/class/cs101/image-rgb-explorer.html>

Can you tell me about X-Ray image?

