**What is Web Technology?**

* Web technologies are the various tools and techniques that are utilised in the process of communication between different types of devices over the internet.
* Let’s break it down into two pieces: ‘ web’ and ‘Technology’.
* The web, in this case, refers to the World Wide Web, more commonly known as WWW. It first came into being in 1989 when famous scientist and engineer, Tim Berners Lee, came up with an efficient mechanism to share resources between scientists all over the world.

**ABOUT INTERNET**

* A network is a group of connected, communicating devices such as computers and printers
* An internet is two or more networks that can communicate with each other( composed of hundreds of thousands of interconnected networks)
* It is the largest network in the world that connects hundreds of thousands of individual networks all over the world
* Private individuals as well as various organizations such as government agencies, schools, research facilities, corporations, and libraries in more than 100 countries use the Internet

**Introduction to WWW**

* WWW ,Web, or W 3
* 1989-1990 Tim Berners Lee invents the World Wide Web at Cern.
* Published in 1992 Means for transferring text and graphics simultaneously.
* The World Wide Web is a way of exchanging information between computers on the Internet.
* It is the network of pages of images, texts and sounds on the Internet which can be viewed using browser software.
* It is a way of accessing the information over the medium of the internet.
* A Web site is a collection of related Web pages and associated items.
* A Web server is a computer that delivers requested Web pages to your computer
* Web 2.0 refers to Web sites that provide a means for users to interact
* The World Wide Web allows computer users to locate and view multimedia based documents (i e documents with text, graphics, animations, audios or videos) on almost any subject.



**Some Key terms:**

*Web browser:* It displays a web document and enables users to access web documents.

*Web Server:* A program that waits patiently for the browser to request a web page. The servers looks for the requested information, retrieves it and send it to the browser or sends an error message if the file is not found.

*Uniform Resource Locator (URL):* These are the web addresses. The resource locator is an addressing system .

**Uniform Resource Locator (URL)**

* A client that wants to access the document in an internet needs an address and to facilitate the access of documents, the HTTP uses the concept of Uniform Resource Locator (URL).
* The Uniform Resource Locator (URL) is a standard way of specifying any kind of information on the internet.
* The URL defines four parts: method, host computer, port, and path.

*Method:* The method is the protocol used to retrieve the document from a server. For example, HTTP.

*Host:* The host is the computer where the information is stored, and the computer is given an alias name. Web pages are mainly stored in the computers and the computers are given an alias name that begins with the characters "www". This field is not mandatory.

*Port:* The URL can also contain the port number of the server, but it's an optional field. If the port number is included, then it must come between the host and path and it should be separated from the host by a colon.

*Path:* Path is the pathname of the file where the information is stored. The path itself contain slashes that separate the directories from the subdirectories and files.

**Domain Name:**

a domain name is the text that a user types into a browser window to reach a particular website. For instance, the domain name for Google is ‘google.com’.

The actual address of a website is a complex numerical IP address (e.g. 192.0.2.2), but thanks to [DNS](https://www.cloudflare.com/learning/dns/what-is-dns/), users are able to enter human-friendly domain names and be routed to the websites they are looking for. This process is known as a DNS lookup.

W**ho manages domain names?**

Domain names are all managed by domain registries, which delegate the reservation of domain names to [registrars](https://www.cloudflare.com/learning/dns/glossary/what-is-a-domain-name-registrar/). Anyone who wants to create a website can register a domain name with a registrar, and there are currently over 300 million registered domain names.

A domain name registrar is a business that handles the reservation of domain names as well as the assignment of [IP addresses](https://www.cloudflare.com/learning/dns/glossary/what-is-my-ip-address/) for those [domain names](https://www.cloudflare.com/learning/dns/glossary/what-is-a-domain-name/).

**What are the parts of a domain name?**

Domain names are typically broken up into two or three parts, each separated by a dot. When read right-to-left, the identifiers in domain names go from most general to most specific. The section to the right of the last dot in a domain name is the [top-level domain (TLD)](https://www.cloudflare.com/learning/dns/top-level-domain/). These include the ‘generic’ TLDs such as ‘.com’, ‘.net’, and ‘.org’, as well as country-specific TLDs like ‘.uk’ and ‘.jp’.

To the left of the TLD is the second-level domain (2LD) and if there is anything to the left of the 2LD, it is called the third-level domain (3LD). Let’s look at a couple of examples:

For Google’s US domain name, ‘google.com’:

* ’.com’ is the TLD (most general)
* ’google’ is the 2LD (most specific)

But for Google UK’s domain name, ‘google.co.uk’:

* ’.com’ is the TLD (most general)
* ’.co’\* is the 2LD
* ’google’ is the 3LD (most specific)

*\*In this case, the 2LD indicates the type of organization that registered the domain (.co in the UK is for sites registered by companies)*