

Web - Basic Concepts

What is Internet?

The Internet is essentially a global network of computing resources. You can think of the Internet as a physical collection of routers and circuits as a set of shared resources.

Some common definitions given in the past include –

- A network of networks based on the TCP/IP communications protocol.
- A community of people who use and develop those networks.

Internet-Based Services

Some of the basic services available to Internet users are –

- **Email** – A fast, easy, and inexpensive way to communicate with other Internet users around the world.
- **Telnet** – Allows a user to log into a remote computer as though it were a local system.
- **FTP** – Allows a user to transfer virtually every kind of file that can be stored on a computer from one Internet-connected computer to another.
- **UseNet news** – A distributed bulletin board that offers a combination news and discussion service on thousands of topics.
- **World Wide Web (WWW)** – A hypertext interface to Internet information resources.

What is WWW?

WWW stands for **World Wide Web**. A technical definition of the World Wide Web is – All the resources and users on the Internet that are using the Hypertext Transfer Protocol (HTTP).

A broader definition comes from the organization that Web inventor Tim Berners-Lee helped found, the World Wide Web Consortium (W3C): The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge.

In simple terms, The World Wide Web is a way of exchanging information between computers on the Internet, tying them together into a vast collection of interactive multimedia resources.

What is HTTP?

HTTP stands for **H**ypertext **T**ransfer **P**rotocol. This is the protocol being used to transfer hypertext documents that makes the World Wide Web possible.

A standard web address such as Yahoo.com is called a URL and here the prefix **http** indicates its protocol

What is URL?

URL stands for **U**niform **R**esource **L**ocator, and is used to specify addresses on the World Wide Web. A URL is the fundamental network identification for any resource connected to the web (e.g., hypertext pages, images, and sound files).

A URL will have the following format –

```
protocol://hostname/other_information
```

The protocol specifies how information is transferred from a link. The protocol used for web resources is HyperText Transfer Protocol (HTTP). Other protocols compatible with most web browsers include FTP, telnet, newsgroups, and Gopher.

The protocol is followed by a colon, two slashes, and then the domain name. The domain name is the computer on which the resource is located.

Links to particular files or subdirectories may be further specified after the domain name. The directory names are separated by single forward slashes.

What is Website?

Currently you are on our website Tutorialspoint.com which is a collection of various pages written in HTML markup language. This is a location on the web where people can find tutorials on latest technologies. Similarly, there are millions of websites available on the web.

Each page available on the website is called a *web page* and first page of any website is called *home page* for that site.

What is Web Server?

Every Website sits on a computer known as a Web server. This server is always connected to the internet. Every Web server that is connected to the Internet is given a unique address made up of a series of four numbers between 0 and 256 separated by periods. For example, 68.178.157.132 or 68.122.35.127.

When you register a Web address, also known as a domain name, such as tutorialspoint.com you have to specify the IP address of the Web server that will host the site.

We will see different type of Web servers in a separate chapter.

What is Web Browser?

Web Browsers are software installed on your PC. To access the Web you need a web browsers, such as Netscape Navigator, Microsoft Internet Explorer or Mozilla Firefox.

Currently you must be using any sort of Web browser while you are navigating through my site tutorialspoint.com. On the Web, when you navigate through pages of information this is commonly known as *browsing or surfing*.

We will see different type of Web browsers in a separate chapter.

What is SMTP Server?

SMTP stands for **S**imple **M**ail **T**ransfer **P**rotocol Server. This server takes care of delivering emails from one server to another server. When you send an email to an email address, it is delivered to its recipient by a SMTP Server.

What is ISP?

ISP stands for **I**nternet **S**ervice **P**rovider. They are the companies who provide you service in terms of internet connection to connect to the internet.

You will buy space on a Web Server from any Internet Service Provider. This space will be used to host your Website.

What is HTML?

HTML stands for **H**yper **T**ext **M**arkup **L**anguage. This is the language in which we write web pages for any Website. Even the page you are reading right now is written in HTML.

This is a subset of Standard Generalized Mark-Up Language (SGML) for electronic publishing, the specific standard used for the World Wide Web.

What is Hyperlink?

A hyperlink or simply a link is a selectable element in an electronic document that serves as an access point to other electronic resources. Typically, you click the hyperlink to access the linked resource. Familiar hyperlinks include buttons, icons, image maps, and clickable text links.

What is DNS?

DNS stands for **D**omain **N**ame **S**ystem. When someone types in your domain name, www.example.com, your browser will ask the Domain Name System to find the IP that hosts your site. When you register your domain name, your IP address should be put in a DNS along with your domain name. Without doing it your domain name will not be functioning properly.

What is W3C?

W3C stands for **World Wide Web Consortium** which is an international consortium of companies involved with the Internet and the Web.

The W3C was founded in 1994 by Tim Berners-Lee, the original architect of the World Wide Web. The organization's purpose is to develop open standards so that the Web evolves in a single direction rather than being splintered among competing factions. The W3C is the chief standards body for HTTP and HTML.

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