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# HTTP:

HTTP stands for Hypertext Transfer Protocol. HTTP is a client-server protocol by which two machines communicate using a reliable, connection-oriented transport service such as the TCP.

# HTTPS:

HTTPS stands for Hypertext Transfer Protocol over Secure Socket Layer or HTTP over SSL. In this SSL acts as a sub layer under regular HTTP application layering.

HTTPS or SSL connections are necessary if you have any online store or you do any financial transactions using credit card or online banking or ask for any other sensitive information.

For example: <https://www.thesslstore.com>

# IP address:

An Internet Protocol address (IP address) is a numerical label assigned to each device connected to a [computer network](https://en.wikipedia.org/wiki/Computer_network) that uses the [Internet Protocol](https://en.wikipedia.org/wiki/Internet_Protocol) for communication.

IP addresses are written and displayed in [human-readable](https://en.wikipedia.org/wiki/Human-readable) notations, such as *172.16.254.1* in IPv4, and *2001:db8:0:1234:0:567:8:1* in IPv6. The size of the routing prefix of the address is designated in [CIDR notation](https://en.wikipedia.org/wiki/CIDR_notation) by suffixing the address with the number of significant bits, e.g., *192.168.1.15/24*, which is equivalent to the historically used subnet mask *255.255.255.0*.

**Difference between Static and Dynamic IP address:**

| **S.NO** | **STATIC IP ADDRESS** | **DYNAMIC IP ADDRESS** |
| --- | --- | --- |
| 1. | It is provided by ISP(Internet Service Provider). | While it is provided by DHCP (Dynamic Host Configuration Protocol). |
| 2. | Static ip address does not change any time, it means if a static ip address is provided then it can’t be changed or modified. | While dynamic ip address change any time. |
| 3. | Static ip address is less secure. | While in dynamic ip address, there is low amount of risk than static ip address’s risk. |
| 4. | Static ip address is difficult to designate. | While dynamic ip address is easy to designate. |
| 5. | The device designed by static ip address can be trace. | But the device designed by dynamic ip address can’t be trace. |
| 6. | Static ip address is more stable than dynamic ip address. | While dynamic ip address is less stable than static ip address. |
| 7. | The cost to maintain the static ip address is higher than dynamic ip address. | While the maintaining cost of dynamic ip address is less than static ip address. |

# ****Domain Name:****

A domain name is a web address that is used to locate a particular website. It can also be described as your website name that serves as an address for other people to access your website on the internet.

The internet is made up of interconnected computers that have different addresses and use a protocol to relate to one another.

A domain name is thus a memorable name that represents a specific IP address and consists of the name that precedes a period (.) and an extension.

**Example: example.com**

# Web Hosting****:****

Web hosting is the allocated server space where all your website files are stored. Web hosting is offered as a monthly or annual subscription service. A web hosting company has the entire necessary infrastructure that is needed for you to store your site files and make them accessible through the World Wide Web.

The hosting companies provide you with storage space by leasing it to you and creating a connection to allow visitors to access your website through the internet

# URL:

A **Uniform Resource Locator** (**URL**), colloquially termed a **web address,** is a reference to a [web resource](https://en.wikipedia.org/wiki/Web_resource) that specifies its location on a [computer network](https://en.wikipedia.org/wiki/Computer_network) and a mechanism for retrieving it. A URL is a specific type of [Uniform Resource Identifier](https://en.wikipedia.org/wiki/Uniform_Resource_Identifier) (URI), although many people use the two terms interchangeably, URLs occur most commonly to reference web pages ([http](https://en.wikipedia.org/wiki/Http)), but are also used for file transfer ([ftp](https://en.wikipedia.org/wiki/File_Transfer_Protocol)), email ([mailto](https://en.wikipedia.org/wiki/Mailto)), database access ([JDBC](https://en.wikipedia.org/wiki/Java_Database_Connectivity)), and many other applications. Most [web browsers](https://en.wikipedia.org/wiki/Web_browser) display the URL of a web page above the page in an [address bar](https://en.wikipedia.org/wiki/Address_bar).

A typical URL could have the form http://www.example.com/index.html, which indicates a protocol (http), a [hostname](https://en.wikipedia.org/wiki/Hostname) (www.example.com), and a file name (index.html).