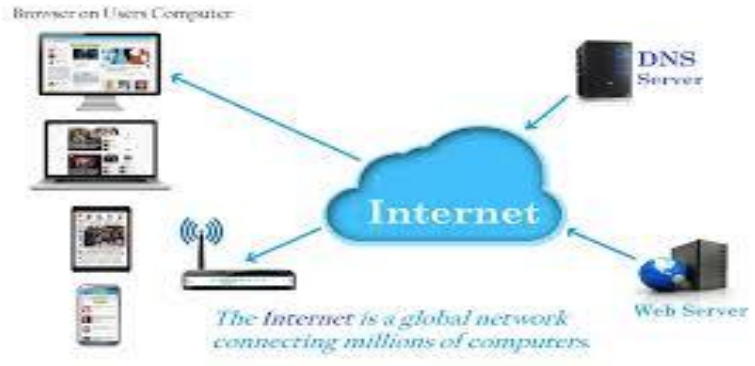
Internet and Its Uses

Internet is a global system that can be used for sharing information, providing worldwide services and communication. Daily updates are easily and instantly available in the **internet**.



Internet Relay Chat (**IRC**) is an application layer protocol that facilitates communication in the form of text. The chat process works on a client/server networking model. IRC clients are computer programs that users can install on their system or web based applications running either locally in the browser or on a 3rd party server.

Uses of Internet

1. Electronic mail.
2. Research.
3. Downloading files.
4. Discussion groups.
5. Interactive games.
6. Education and self-improvement.
7. Friendship and dating. .
8. Electronic newspapers and magazines.
9. Job-hunting
10. Shopping.

WWW

The World Wide Web (**WWW**), commonly known as the Web, is an information system where documents and other web resources are identified by Uniform Resource Locators (URLs, such as https://**www**.example.com/), which may be interlinked by hypertext, and are accessible over the Internet.

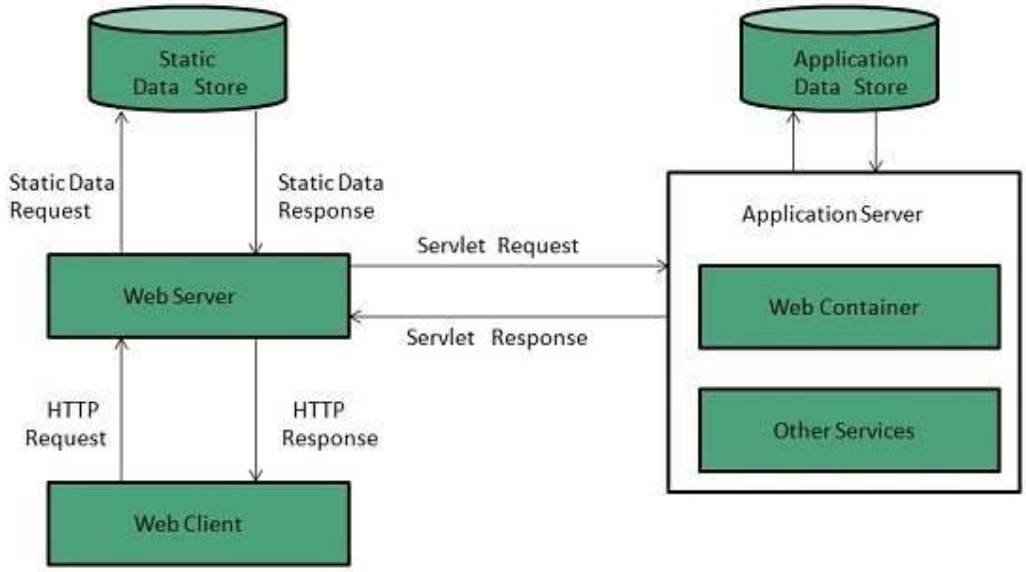
Web server is a computer where the web content is stored. Basically web server is used to host the web sites but there exists other web servers also such as gaming, storage, FTP, email etc.

Web site is collection of web pages whileweb server is a software that respond to the request for web resources.

Web Server Working

Web server respond to the client request in either of the following two ways:

- Sending the file to the client associated with the requested URL.
- Generating response by invoking a script and communicating with database



Web Server Architecture

Web Server Architecture follows the following two approaches:

1. Concurrent Approach
2. Single-Process-Event-Driven Approach.

Concurrent Approach

Concurrent approach allows the web server to handle multiple client requests at the same time. It can be achieved by following methods:

- Multi-process
- Multi-threaded
- Hybrid method.

Multi-processing

In this a single process (parent process) initiates several single-threaded child processes and distribute incoming requests to these child processes. Each of the child processes are responsible for handling single request.

It is the responsibility of parent process to monitor the load and decide if processes should be killed or forked.

Multi-threaded

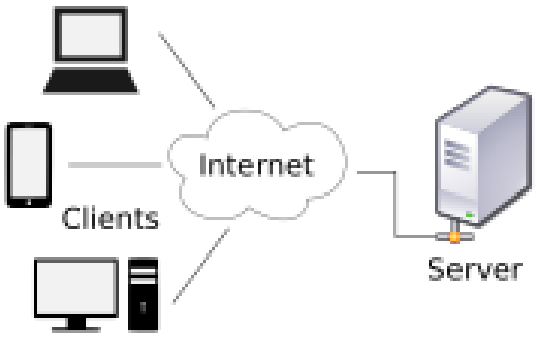
Unlike Multi-process, it creates multiple single-threaded process.

Hybrid

It is combination of above two approaches. In this approach multiple process are created and each process initiates multiple threads. Each of the threads handles one connection. Using multiple threads in single process results in less load on system resources.

Web Client

A **client** is a piece of computer hardware or software that accesses a service made available by a server. The server is often (but not always) on another computer system, in which case the client accesses the service by way of a network.



A **website** is a collection of related network **web** resources, such as **web** pages, multimedia content, which are typically identified with a common domain name, and published on at least one **web** server. **examples** of **websites** are amazon.com, flipkart.com, getsetproject.com etc.

A **web page** or a webpage is a specific collection of information provided by a website and displayed to a user in a web browser. A website typically consists of many web pages linked together