

## Unit -1

# Overview of Web

# Website

- Website is a collection of related web pages.
- Each website has specific internet address.
- A website is managed by its owner that can be an individual, company or an organization.

# Types: Static and Dynamic

## Static Websites

- ⦿ for a smaller company, and simply delivers information

## Advantages of static websites

- ⦿ Quick to develop
- ⦿ Cheap to develop
- ⦿ Cheap to host

## Disadvantages of static websites

- ⦿ Requires web development expertise to update site
- ⦿ Site not as useful for the user
- ⦿ Content can get stagnant

## **Dynamic Websites**

- ◉ At a basic level, a dynamic website can give the website owner the ability to simply update and add new content to the site

### **Advantages of dynamic websites**

- ◉ Much more functional website
- ◉ Much easier to update
- ◉ New content brings people back to the site and helps in the search engines
- ◉ Can work as a system to allow staff or users to collaborate

### **Disadvantages of dynamic websites**

- ◉ Slower / more expensive to develop
- ◉ Hosting costs a little more

# Scripts

- ⦿ A script is a set of instructions.  
To the Web browser  
To the server
- ⦿ Scripts provide change to a Web page.  
e.g. Advertisement, Menus etc.
- ⦿ Google uses scripts to fill in your search term for you, to place advertisements, to find the thing you are searching for and so on.

# Client side Scripting

- ⦿ A client is a party that requests pages to the server and displays them to the end user. In general a client program is a web browser.

## Client-side | Languages Example

There are many client-side scripting languages too.

- ⦿ JavaScript
- ⦿ VBScript
- ⦿ HTML (Structure)
- ⦿ CSS (Designing)
- ⦿ AJAX
- ⦿ jQuery etc.
- ⦿ The Server is responsible for serving the web pages depending on the client/end user requirement. It can be either static or dynamic.

# Server Side Scripting

## Server-side | Languages Example

There is several languages that can be used for server-side programming:

- ⦿ PHP
- ⦿ ASP.NET (C# OR Visual Basic)
- ⦿ C++
- ⦿ Java and JSP
- ⦿ Python
- ⦿ Ruby on Rails and so on.

# Protocols : HTTP,HTTPS & FTP

- ◉ **FTP:** Short for File Transfer Protocol, uses TCP port 21 to transfer files from one host to another host over the TCP network.
- ◉ **HTTP:** Hypertext Transfer Protocol is the underlying protocol used by the World Wide Web (www). It is the data communication protocol used to establish communication between client and server. Its default port is TCP 80.
- ◉ **HTTPS:** Hypertext Transfer Protocol Secure or HTTP over SSL, is the use of Secure Socket Layer (SSL) as a sub layer under regular HTTP. The use of HTTPS protects against eavesdropping and man-in-the-middle attacks.



# Web Server'

- ◉ **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.
- ◉ A web server is software and hardware that uses [HTTP](#) (Hypertext Transfer Protocol) and other protocols to respond to [client](#) requests made over the World Wide Web. The main job of a web server is to display website content through storing, processing and delivering web pages to users.
- ◉ Example: Apache, Tomcat, IIS, Glassfish, Sun Java System Web Server, Mercury

# ISP and its Services

- An ISP (Internet service provider) is a company that provides individuals and other companies access to the Internet and other related services such as Web site building and virtual hosting.
- An ISP has the equipment and the telecommunication line access required to have a point-of-presence on the Internet for the geographic area served.
- The larger ISPs have their own high-speed leased lines so that they are less dependent on the telecommunication providers and can provide better service to their customers.
- Among the largest national and regional ISPs are AT&T WorldNet, IBM Global Network, MCI, Netcom, UUNet, and PSINet.

# Web Hosting & Virtual Host

- ✓ Hosting (also known as Web site hosting, Web hosting) is the business of housing, serving, and maintaining files for one or more [Web sites](#).
- ✓ When a [hosting provider](#) allocates space on a web server for a website to store its files, they are hosting a website. Web hosting makes the files that comprise a website (code, images, etc.) available for viewing online.
- ✓ **Web hosting** is a service that allows organizations and individuals to post a website or web page onto the Internet. A web host, or web hosting service provider, is a business that provides the technologies and services needed for the website or webpage to be viewed in the Internet.
- ✓ **Virtual hosting** is a method for hosting multiple domain names (with separate handling of each name) on a single server (or pool of servers). each website on a virtual host was assigned a unique IP address.
- ✓ The configuration is flexible, allowing dynamic host deployment in a hosts directory or using explicit <host> tags for additional control and security, and compatibility with existing Apache sites, enabling easy upgrades and evaluation for PHP servers to Quercus.

# Multi-Homing

- ⦿ Multihomed describes a computer [host](#) that has multiple IP addresses to connected networks. A multihomed host is physically connected to multiple data links that can be on the same or different networks. For example, a computer with a Windows NT 4.0 Server and multiple IP addresses can be referred to as "multihomed" and may serve as an IP [router](#).
- ⦿ Multihoming is a practice of increasing the reliability of network by having more than one connection to the internet.

# Document Root

- ◉ The document root is a directory (a folder) that is stored on your host's servers and that is designated for holding web pages. When someone else looks at your web site, this is the location they will be accessing.
- ◉ The **DocumentRoot** is the top-level directory in the document tree visible from the web and this directive sets the directory in the configuration from which **Apache** or **any other server** looks for and serves web files from the requested URL to the document root.
- ◉ DocumentRoot : `"/var/www/html"` or `localhost/htdocs/programs/Demo1.php`
- ◉ The document root is the "www" directory, but of course your [host](#) may well use a different folder. Some of the more common alternatives are:
  - htdocs
  - httpdocs
  - html
  - public\_html
  - Web

**Thank You**