**Web Server Meaning**

**Hardware and Software Requirements for E-Commerce**

* It refers to a common computer, which provides information to other computers on the internet.
* It is either the hardware (the computer) or the software (the computer programs) that stores the digital information (web content) and delivers it through Internet whenever required.

The three components to a web server

* The Hardware
* Operating system software
* web server software **Website & Internet Utility Programs Meaning of Website**
* A Website is a collection of related web pages on a web server maintained by any individual or organization.
* A website is hosted on web server, accessible via internet or private LAN through an internet address called URL (Uniform Resource Locator). All publicly accessible websites collectively constitute the WWW (world wide web)

# Meaning of Utility Programs

These are software tools to help users in developing, writing and documenting programs (a sequence of instructions to a computer)

There are 2 types of utility programs

1. File Management Utilities – it helps in creating, copying, printing, erasing and renaming the files.
2. Program Development Utilities – it is useful in assembler, compiler, linker, locator etc,

# Website & utility programs include:

Electronic Mail – sending & receiving messages globally via internet.

**Use Net News** – it’s a software that enables a group of internet users to exchange their view, ideas, information on some common topic of interest with all members belonging to the group.

Ex:-politics, social issues, sports etc.

**Real Time Chatting** – It is an internet program available to users across the net to talk to each other, text messages, video chat and video conference via internet.

# Finger and Ping

**Finger** – it is the utility program used to find some information about the users that are on the network. Ex: - last time a user logged on to the network

**Ping (Packet Internet Groper)** – it is a program used to test the connectivity between two computers connected to the internet. Connection with the internet to ensure proper network

**Tracer (Route Tracing Program)** – it is a program that sends data packets to every computer on the path between one computer to another computer in the network and records the time it takes to reach the destination computer from the originating computer.

# Telnet and FTP

**Telnet** – it is a software that allows one computer user to access files and run programs on another computer that is connected to the internet.

# FTP - (FILE TRANSFER PROTOCOL)

it is a service used on internet to exchange files between computer.

**Indexing & Searching Utility programs** it helps the search engine to search the specific website (Search for Information)

**Data Analysis Program** – it is software used to obtain the visitor information. i.e., website visitor is accessing, time lag the website viewed, the date and time of each visit, pages viewed etc.,

**Line checking utility program** – it examines each page on the website and reports any URLs

broken or someway incorrect. Besides checking links, link checker programs sometimes check spelling and other structural components of web pages.

**Remote Server Administration Program** – this software allows the web administrator to manage and monitor a website from any Internet connected computer.

# Web Hosting

It means to store website contents on a web server. It is a type of service, provided by Internet. Service Providers that allow individuals and organizations to make their website accessible when people browse via the [www.](http://www/) Thus, web hosts are companies that provide space on a server owned or leased for use by clients.

There are two choices to host the website: -

* 1. On own web server platform (in house)
  2. On the platform of someone else (i.e., ISP's)

# TYPES OF WEB HOSTING - Choice of web hosting

* Home Server – it is a single machine placed in a private residence used to host one or few websites from a broadband connection.
* Free Web Hosting service – it is the type of service provided by web hosting companies free of cost with limited services. The hosting companies offer free space on their web server with a condition that some advertisements are allowed on the web pages. Later the business can change the package by paying.
* Shared Website Hosting - it refers to hosting of multiple websites simultaneously on the same web server. The web host also maintains the server and provides technical support on it.
* Virtual Dedicated Hosting – In this type the client or user will have a dedicated web server with separate bandwidth and RAM. The user will be given ID and password to maintain the web server – the user can install or remove any software.
* Dedicated Hosting – the service provider makes a web server available to the client and has control over it. The service provider owns server hardware and software but leases it to the client.
* Managed Hosting – in this type ,the client user gets his own web server but is not allowed full control on it.(no install or remove software)
* Collocation Hosting – in this type the service provider rents a physical space to the client to install his/her server hardware. In other words, co-location allows a client to put his machine in a service provider's premises to avail all the available facilities. The client installs his own software and maintains the server. The service provider is responsible only for providing a reliable power supply, internet connection and other networking hardware.
* Cloud hosting – it is a new type of hosting platform that allows clients a decentralized, powerful, scalable (i.e., can be upgraded or a new server added as necessary) and reliable hosting, based on clustered load-balanced servers and utility billing. A cloud hosted website may be more reliable than other choices since other computers in the cloud can compensate when a single piece of hardware goes down.
* Clustered Hosting -Multiple servers hosting the same content for better resources is called Clustered Hosting.
* Grid Hosting – it is a form of distributed hosting where a server clusters acts like a grid and is composed of multiple clients.

# E-commerce Requirement

**Telecommunication Infrastructure Requirements** – it is entailed with bandwidth and security.

**Bandwidth varies from one e-commerce to another**. Two main components of security

Requirements for e-commerce are type of firewall and encryption/algorithm mechanism. Security requirements areas are crucial part of e-commerce.

**Hardware Requirement for E-commerce** - Pentium II/III based Intel server running Linux can

serve hundreds of unique customers each day. Low traffic sites can be easily served from a single machine depending on the needs of the business. High traffic sites require a backup of servers which automatically takes over operations in case of failure of primary ones.

**Software Requirements for E-commerce –** Several software are available free on the internet that can be used to build e-commerce exchanges. Ex:- Linux OS, mySQL database ,Apache web server etc.,

**Technical Skill** -A systems administrator must have a good knowledge of computer hardware, must be able to maintain and upgrade hardware including hard drive, processor and motherboard.

He/she must also have the skill to install and compile Apache, MySQL and Java servlet engine.

# Financial Infrastructure -

1. Dependable telecommunication network
2. Use of integrated banking software for ack office and front office data processing
3. Use of WAN and internet for banking operations
4. Availability of legal infrastructure supporting online payment mechanism.
5. Availability of EFT

Legal and Policy framework – policies that ensure legal certainty, security and consumer protection for online transactions and interactions should be enacted. These include the resolution of issues such as transactional security, electronic contract enforceability and authentication of individuals and documentation.

# E-commerce software Catalogue display

A catalogue is an organized list of goods & services being sold. An e-catalogue is a simple list of goods and services in HTML form that appears on a webpage on the website of an ecommerce company.

Two types

* 1. Static catalogue -providing simple list of goods and services on offer.
  2. dynamic catalogue -providing a detailed feature about items on sale in a database, detailed descriptions, shipment time etc.,

# Shopping Cart

It is an electronic basket provided by E-commerce service providers to be used by net users to keep track of the products selected in the basket, compare and review them, modify it by adding new ones or removing unwanted goods before finally deciding to purchase. After the shopping is completed the customer will make the payment through online.

# Features or Procedures for shopping cart

* + - Compare and select the goods before purchasing.
    - Select the goods easily -by clicking.
    - Customize the product based on the size, quantity, color etc., before proceeding to order.
    - Getting information about the offers, discounts & price.
    - Specify the payment mode like credit card, debit card, cheque, online payment, payment at the time of delivery etc.,
    - Mention the venue for delivery of selected goods.
    - Compute shipping charges and obtain information about taxes to incur.
    - Get information about delivery time.
    - Have transaction confirmation message and transaction report through an email or SMS.
    - Transact securely with the web seller.
    - Transaction Processing

It is the software that prompts processing the transaction when an online customer orders for a purchase. Transaction processing software calculates volume discounts to be allowed, sales tax or VAT to be charged; shipment cost etc., and arranges to receive payment as agreed. It also maintains the sales and inventory management modules in accounting software.

**Price Graph**

* It enables customer to see past prices in order to get best deals out of product.
* It also enables customer to set reminder at particular price level for a particular product.
* Reminder can be of two types:

1. E-mail or SMS notification.
2. In-app Notification

Let say, If user’s laptop and mobile browsers are synced then they will receive notification in both their devices.

* Expected Price graph is also added, showing expected prices in a product