

INDEX

[illegible]

Aim: To study web hosting, web servers, frameworks and web technologies.

* What is web-hosting?

Web hosting is a service that allows individuals and organizations to make their website accessible on the internet.

In simpler terms web-hosting is like renting space on a server where you can store your website's files, data and other content so that it can be accessed by users world wide.

Types of web-hosting:

i) Shared hosting:

Multiple websites share resources on the same server. It is cost efficient but may lead to slower performance if other websites on server are facing traffic.

ii) Virtual Private Server (VPS):

A server is divided into virtual compartments giving each website a dedicated portion of resources.

iii) Dedicated hosting:

You have an entire server exclusively for your websites where you can get maximum

control and performance but it is expensive.

iv) Cloud Hosting:

Resources are spread across multiple servers offering flexibility and scalability.

* What are Web Servers?

A webserver is a software application or hardware device that stores, processes and delivers web pages to user's browsers upon request. It plays a central role in the process of serving websites on the internet.

When a user enters a website domain name into their browser, the web servers are responsible for changing it into IP address and landing the user to their desired web-page.

HTTP:

Hyper text transfer protocol; the standard way for transferring data over the web. It defines how messages are formatted and transmitted.

HTTPS:

This is just an extension HTTP which has an extra layer of security and encryption.

25 Caching:

Caching mechanism is used to store copies of frequently used files, reducing servers workload and

improving response time.

* What are frameworks?

A framework is a set of pre-built tools, libraries and best practices designed to help developers build applications more efficiently. Frameworks provide a structured way to develop software by offering reusable code. There are both front-end and back-end frameworks.

Eg: Django (python), Express Js (Java Script - Node.js), React.js ; Angular (JavaScript/Type Script).

* What are Web-Technologies?

Web-Technologies refers to tools and languages used in web development. They include both frontend and backend technologies.

Frontend Technologies:

→ HTML:

Hyper text Markup language used for documents, content, media to be displayed.

→ CSS:

Cascading Style Sheets is a language used for styling and formatting HTML contents.

→ JavaScript:

A programming language.

that enables interactive web pages. It is a core technology of web development.

Backend Technologies:

→ Node.js:

An open-source, cross platform JavaScript runtime environment that executes JavaScript code server-side.

→ Databases: (MySQL, MongoDB):

Backend applications often interact with databases to store and retrieve data.