CHAPTER-3

Web technology - II

INTRODUCTION

Web technology:It is defined as the technology that primarily deals with how to save the information securely in web servers and how to retrieve information from these servers using different internet based tools and techniques.

WWW: world wide web is the network of web servers connected through the internet all over the world.These web servers on the web store billions of websites which provide or share a variety of information on different topics or subjects through web pages.

Webpage: web page is the collection of electronic documents provided by the website to the user on the internet.

Web server: It is a computer where the web contents are stored. Web server is used to host the websites.There are different types of web servers such as gaming,storage,FTP,email etc.

Website: It is the collection of webpages and the web server responds to the request for web resources.The URL(uniform resource locator) is used to access it on the Internet.
It is classified into 2 types:

a) Static website:A static website has no interactive features and it delivers the information to the user exactly as stored.It is also referred to as flat or stationary websites.one can only read the information,can't change it or interact with it.eg:HTML,CSS

b)Dynamic website:It is an interactive website with capability to change the content each time they are accessed.Such website is controlled by the server where it is stored.Such server runs a special program called web server program which helps to manage websites. It can be easily updated and developed by using server-side scripting languages such as PHP,JAVA,PYTHON,PEARL, ASP.NET.

The Facebook homepage is a dynamic page.

A script language is an interpreted programming language that is used to make the web pages dynamic and interactive.

WHAT IS CLIENT-SIDE SCRIPTING?
WHAT IS SERVER-SIDE SCRIPTING?

Client-side scripting simply means running scripts, such as JavaScript, on the client device, usually within a browser. All kinds of scripts can run on the client side if they are written in JavaScript, because JavaScript is universally supported. Other scripting languages can only be used if the user's browser supports them.

Server-side scripts run on the server instead of the client, often in order to deliver dynamic content to web pages in response to user actions. Server-side scripts don't have to be written in JavaScript, since the server may support a variety of languages.

Client-side means that the processing takes place on the user's computer. It requires browsers to run the scripts on the client machine without involving any processing on the server. Server-side means that the processing takes place on a web server.

In the netflix.com example above, the HTML, CSS, and JavaScript that dictate how the Netflix mainpage appears to the user are interpreted by the browser on the client side. The page can also respond to 'events': For instance, if the user's mouse hovers over one of the movie thumbnail images, the image expands and adjacent thumbnails move slightly to one side to make room for the larger image. This is an example of a client-side process; the code within the webpage itself responds to the user's mouse and initiates this action without communicating with the server.

JAVASCRIPT

➢ It is the most popular and widely used client-side scripting language. Javascript was originally developed as LIVESCRIPT by Netscape in the mid 1990s.It was later renamed to javascript in 1995. It became an ECMA standard in 1997.

➢ It is commonly used for web based applications and supported by virtually all web browsers.

➢ It is a dynamic programming language for computers . It is a lightweight component of web pages whose implementation enables client-side scripts to interact with the users and create dynamic sites

ADVANTAGES OF JS:

❖Less server interaction

❖Immediate feedback to the visitors.

❖Increased interactivity

❖Richer interface

❖Display pop-up and dialog boxes

❖Change the appearance of the documents

DIFFERENCES BETWEEN CLIENT SIDE AND SERVER SIDE SCRIPTING

Differences between client and server side scripting:

Client side scripting	Server side scripting
1. This code is visible to the user.	1. This code is not visible to the user.
2. It runs on client computer.	2. It runs on web server.
3. It does not provide security.	3. It provides high security of data.
4. This code does not frequent interaction with server.	4. It needs frequent interaction with server.
5. It reduces the load to the server.	5. It makes the contents dynamic.
6. Comparatively, the code execution is faster.	6. It is slower because it has to take the data to the server so.

ADDING JAVA SCRIPT TO HTML PAGE

JAVASCRIPT FUNDAMENTALS

JAVASCRIPT VARIABLES

Variables in JavaScript are declared by using keyword 'var'. for eg,

var a=3,b=4;

var fruit = "apple";

JAVA SCRIPT DATA TYPES

Data Types	Function
Number	It represent numeric value i.e. integer and floating number. We can use BigInt to represent number with large value.
String	It represent alphanumeric values i.e. text
Boolean	It represent either true or false value.
Null	It represent empty or unknown value.
Undefined	If variable is declared but the value is not assigned then the variable is of undefined type.

JAVASCRIPT OPERATORS(PG93)

1) Arithmetic Operator:

2) Assignment operator

3) Comparison operator

4) Logical operator

5) Bitwise operator

6) String operator

7) Other operator