SYLLABUS

Subject: - Web Designing

Unit	Contents
UNIT – I	**Introduction to Internet-** World Wide Web, Internet Addressing. Browser, URL. Web server, website, homepage, Domain Name. Basic concepts. **Softwares for Web Designing** - Notepad/Notepad++, Dreamweaver, Blue Griffon, Net beans, Sea Monkey, Word press, Sublime. **Introduction to HTML:** HTML Tags and Attributes, HTML Basic Tags, Formatting Tags, HTML Color Coding, Div and Span Tags for Grouping Lists: Unordered Lists, Ordered Lists, Definition list. Images: Image and Image Mapping **Hyperlink: URL -** Uniform Resource Locator, URL Encoding. Table: \<table>\<th>, \<tr>, \<td>, \<caption>, \<thead>, \<tbody>, \<tfoot>, \<colgroup>, \<col> Attributes Using Iframe as the Target **Form** \<input>, \<textarea>, \<button>, \<select>, \<label> **Headers:** Title, Base, Link, Styles, Script HTML Meta Tag, XHTML, HTML Deprecated Tags & Attributes
UNIT – II	**CSS:** Introduction, Features and benefits of CSS, CSS Syntax, External Style Sheet using \<link>, Multiple Style Sheets, Value Lengths and Percentages. **Selectors:** ID Selectors. Class Selectors, Grouping Selectors, Universal Selector, Descendant / Child Selectors, Attribute Selectors, CSS-Pseudo Classes. **Color Background Cursor:** background-image, background-repeat, background position, CSS Cursor **Text Fonts:** color, background-color, text-decoration, text-align, vertical-align, text-indent, text-transform, white-space, letter-spacing, word-spacing, line-height, font-family, font-size, font-style, font-variant, font-weight.
UNIT – III	**Lists Tables:** List-style-type, list-style-position, list-style-image, list-style, CSS Tables (border, width & height, text-align, vertical-align, padding, color) **Box Model:** Borders & Outline, Margin & Padding, Height and width, CSS Dimensions. **Display Positioning:** CSS Visibility, CSS Display, CSS Scrollbars, CSS Positioning (Static Positioning, Fixed Positioning, Relative Positioning, Absolute Positioning), CSS Layers with Z-Index. **Floats:** The float Property. The clear Property, The clearfix Hack.
UNIT – IV	**The JavaScript:** Nature of JavaScript, Script Writing Basics, Enhancing HTML Documents with JavaScript, The Building Blocks. Introduction to JavaScript, JavaScript Engines, Values, Variables and Operators, Variable Mutation, Basic Operators, Operator Precedence, JavaScript Types. Types Definition, Types in JavaScript, Objects, Type Conversion and Coercion, Static vs Dynamic Type Checking. **JavaScript Conditionals:** Introduction to Conditionals, Conditionals in JavaScript, Ternary Operators and Conditionals. Conditional Ladder & Switch statement. **JavaScript Arrays:** Introduction to Arrays, Declaring and Mutating Arrays, Array Methods and Properties, Replication with Array Methods, Multi-dimensional Arrays.
UNIT –V	**JavaScript Loops:** Introduction to Loops, Loops in JavaScript, While and Do/While Loops, For Loops, Break and Continue in Loops, Iterating Arrays, Iterating Objects. **JavaScript Functions:** Introduction to Functions, Functions in JavaScript, Nested Functions in JavaScript, Arrow Functions in JavaScript, Function as an Argument, Function as the Returned Object, **JavaScript Scope:** Scope Introduction, Scope in JavaScript, Lexical Scope. Module

	Scope.
	Method of Adding Interactivity to a Web Page, Creating Dynamic Web Pages, Concept of Java Scripting the Forms.
	Java Scripting the Forms, Basic Script Construction, Talking to the Form Objects. Organizing the Objects and Scripts, Field-Level Validation, Check Required Fields like Validating Zip Code, Automated Formatting, Format Phone, For Money, Automatic Calculation, Calculate Expiration Date, Calculate Amount etc.

UNIT -1

Introduction to Internet

The Internet, also known as the Net, is a worldwide network of computers or network of network that are interlinked. Over Internet information is spread over web page. The Internet provides many online services like information retrieval, email, gaming, chat etc.

Definition

Federal Networking Council (FNC) in October 1995 defined the term "Internet". According to FNC "Internet" refers to the global information system that -

 I.   It Is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions
 II.   Is able to support communications using the Transmission Control Protocol/ Internet Protocol (TCP/IP) suite or its subsequent extensions and/ or other IP-compatible protocols; and
III.   It provides, uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein.

WEB PAGE

A **web page** is collection of text, graphics, video and audio. It contains hyperlink that connects to next page of website. A web page is commonly written in HTML (Hypertext Markup Language) that is accessible through the Internet or other networks using an Internet browser (Google Chrome,

Mozilla, opera etc.). The name "web page" in a website is similar to paper pages that are bound together into a book.

WEBSITE

A **website** represents a centrally managed collection of web pages, containing group of text images and all types of multi-media files presented to the attention of the Internet users in a visual and easily accessible way. The Website gives users access to a vast array of documents that are connected to each other by means of hypertext or hypermedia links—i.e., hyperlinks, electronic connections that link related pieces of information in order to allow a user easy access to them.

STATIC WEBSITE

Static, or 'fixed', websites are the most simplistic. Their content does not change depending on the user, and is not regularly updated. Static websites are built using simple HTML code, and typically provide information.

DYNAMIC WEBSITE

A dynamic website or web page will display different content each time it is visited. Examples include blogs and eCommerce sites, or generally any site that is updated regularly. Dynamic websites can also be set up to show different content to different users, at different times of the day etc. Dynamic websites make for a more personal and interactive experience for the user, although they can be a little more complex to develop and may load slightly slower than static ones.
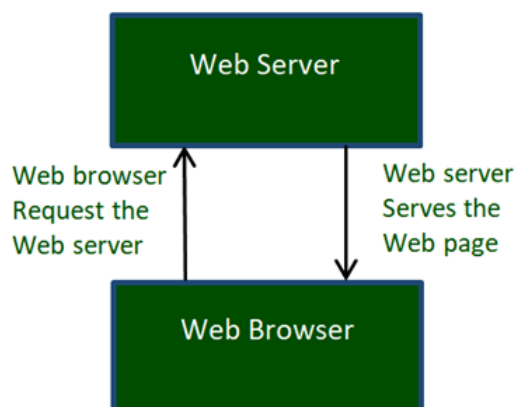
WORLD WIDE WEB ("WWW'

The **World Wide Web** ("WWW', "Web" or "W3") was begun in 1989 by Tim Berners-Lee and his colleagues at CERN, an international scientific organization based in Geneva, Switzerland. They created a protocol, Hyper Text Transfer Protocol (HTTP), which standardized communication between servers and clients. Their text-based Web browser was made available for general release in January 1992.

World Wide Web, which is also known as a Web, is **a collection of websites or web pages stored in web servers and connected to local computers through the internet**. Users can access the content of these sites from any part of the world over the internet using their devices such as computers, laptops, cell phones, etc.

WEB BROWSER

Web browser is a software application used to locate, retrieve, and display content on the World Wide Web, including web pages, images, videos, and other files. It means that the web browser asks for data from the website and the web server sends the information back to the browser, which then displays the results on the Internet-enabled device. Some common web browsers are Google Chrome, Mozilla Firefox, Internet Explorer, Safari, etc

WEB SERVER

A **WEB SERVER** is a software and hardware that is used to store and deliver the website content. Content could be anything from images, texts, application data, videos, and many more as per the request of the web browser. Basically, when a browser asks for information, then the process goes through many steps. The person specifies the URL in the address bar of the web browser, and then the web browser gets the IP address of the domain name. This is done by either translating the URL using the Domain Name System or DNS, or it is done by searching through the cache. This brings the browser to the web server. The web server then responds and sends the requested page to the browser.

Some uses of web server

- Send and receive emails.
- Download the file transfer protocol or FTP request
- Build and publish web pages.

WEBSITE ADDRESS

A website address, also known as a URL (uniform resource locator), is an Internet or intranet name that points to to a location where a file, directory or website page is hosted

ABSOLUTE AND RELATIVE ADDRESS

It always begins with the protocol name. An absolute reference is the complete address to a web page including http://www, just as you'd use in the browser's address bar Absolute references are used to refer to a site somewhere else on the Internet.

A relative URL is any URL that doesn't explicitly specify the protocol (e.g., "http:// " or " https:// ") and/or domain (www.example.com), which forces the visitor's web browser (or the search engine bots) to assume it refers to the same site on which the URL appears

Hyper Text Markup Language (HTML)

HTML (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. "Hypertext" refers to links that connect web pages to one another, either within a single website or between websites. Links are a fundamental aspect of the

Web. HTML uses "markup" to annotate text, images, and other content for display in a Web browser.

An HTML element is set off from other text in a document by "tags", which consist of the element name surrounded by "<" and ">". The name of an element inside a tag is case insensitive. That is, it can be written in uppercase, lowercase, or a mixture. For example, the <title> tag can be written as <Title>, <TITLE>, or in any other way.

<html>

This tag encloses the complete HTML document and mainly comprises of document header which is represented by <head>...</head> and document body which is represented by <body>...</body> tags.

<head>

This tag represents the document's header which can keep other HTML tags like <title>, <link> etc

<title>

The <title> tag is used inside the <head> tag to mention the document title

<body>

This tag represents the document's body which keeps other HTML tags like <h1>, <div>, <p> etc

The <body> tag has attributes which can be used to set different colors −

- **bgcolor** − sets a color for the background of the page.
- **text** − sets a color for the body text.

Heading Tags

Any document starts with a heading. You can use different sizes for your headings. HTML also has six levels of headings, which use the elements <h1>, <h2>, <h3>, <h4>, <h5>, and <h6>. While displaying any heading, browser adds one line before and one line after that heading.

Paragraph Tag

The **<p>** tag offers a way to structure your text into different paragraphs. Each paragraph of text should go in between an opening <p> and a closing </p> tag.

Line Break Tag

Whenever you use the **
** element, anything following it starts from the next line. This tag is an example of an **empty** element, where you do not need opening and closing tags, as there is nothing to go in between them.

Centering Content

You can use <center> tag to put any content in the center of the page or any table cell.

Bold Text

Anything that appears within ... element, is displayed in bold

Italic Text

Anything that appears within <i>...</i> element is displayed in italicized

Underlined Text

Anything that appears within <u>...</u> element, is displayed with underline

Insert Image

You can insert any image in your web page by using <img> tag. Following is the simple syntax to use this tag.

The <img> tag is an empty tag, which means that, it can contain only list of attributes and it has no closing tag.

HTML - Lists

HTML offers web authors three ways for specifying lists of information. All lists must contain one or more list elements. Lists may contain −

- **<ul>** − An unordered list. This will list items using plain bullets.

- **<ol>** − An ordered list. This will use different schemes of numbers to list your items.

- **<dl>** − A definition list. This arranges your items in the same way as they are arranged in a dictionary.

HTML Unordered Lists

An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML <ul> tag. Each item in the list is marked with a bullet.

HTML Ordered Lists

If you are required to put your items in a numbered list instead of bulleted, then HTML ordered list will be used. This list is created by using **<ol>** tag. The numbering starts at one and is incremented by one for each successive ordered list element tagged with <li>.

HTML Definition Lists

HTML supports a list style which is called definition lists where entries are listed like in a dictionary or encyclopedia. The definition list is the ideal way to present a glossary, list of terms, or other name/value list.

Definition List makes use of following three tags.

- <dl> − Defines the start of the list

- <dt> − A term

- <dd> − Term definition

- </dl> − Defines the end of the list

HTML - Tables

The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.

The HTML tables are created using the <table> tag in which the <tr> tag is used to create table rows and <td> tag is used to create data cells. The elements under <td> are regular and left aligned by default

Table Tags

Table heading can be defined using <th> tag. This tag will be put to replace <td> tag, which is used to represent actual data cell. Normally you will put your top row as table heading as shown below, otherwise you can use <th> element in any row. Headings, which are defined in <th> tag are centered and bold by default.

The <**caption**> tag defines a table caption. The <caption> tag must be inserted immediately after the <**table**> tag.

The <**tbody**> tag is used to group the body content in an HTML table. The <tbody> element is generally used with the <thead> and <tfoot>elements to specify each part of a table (body, header, footer).

The <**tfoot**> tag is used to group footer content in an HTML table.

The <**thead**> tag is used to group header content in an HTML table.

The **<colgroup>** tag used for formatting columns in a table, The <colgroup> tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row. <colgroup> tag must be a child of a <table> element, after any <caption> elements and before any <thead>, <tbody>, <tfoot>, and <tr> elements.

The **<col>** tag specifies column properties for each column within a <colgroup> element. The <col> tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row.

<iframe>

The <iframe> tag specifies an inline frame. An inline frame is used to embed another document within the current HTML document.

<style>

The <style> tag is used to define style information (CSS) for a document. Inside the <style> element we specify how HTML elements should render in a browser.When a browser reads a style sheet, it will format the HTML document according to the information in the style sheet. If some properties have been defined for the same selector (element) in different style sheets, the value from the last read style sheet will be used.

<form>

The HTML <form> tag is **used for creating a form for user input**. A form can contain textfields, checkboxes, radio-buttons and more. Forms are used to pass user-data to a specified URL.

- The <input> element is the most important form element. It specifies an input field where the user can enter data. The <input> element can be displayed in several ways, depending on the type attribute. E.g. <input type="button">, <input type="checkbox">

- The <label> tag defines a label for several elements: The <label> tag is used to specify a label for an <input> element of a form. It adds a label to a form control such as text, email, password, textarea etc. It toggles the control when a user clicks on a text within the <label> element.

- The <button> HTML element represents **a clickable button, used to submit forms or anywhere in a document for accessible, standard button functionality**.

- <textarea>: The Textarea element. The <textarea> HTML element represents **a multi-line plain-text editing control**, useful when you want to allow users to enter a sizeable amount of free-form text, for example a comment on a review or feedback form. A text area can hold an unlimited number of characters. The size of a text area is specified by the <cols> and <rows>

- The <select> element is used to create a drop-down list. The <select> element is most often used in a form, to collect user input. The <option> tags inside the <select> element define the available options in the drop-down list.