Day 2-Workshop-Learning-Content

Description: This document will give knowledge about website, working of internet, introduction to html, how to create, save and view html document, structure and elements of html.

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1. **Introduction to Web** :-

   The "**Web**," short for "**World Wide Web**" (which gives us the acronym *www*), is the name for one of the ways that the internet lets people browse documents connected by hypertext links. The principle of the Web is based on using hyperlinks to navigate between documents (called **web pages**) with a program called a **browser**.

   a. **What is Webpage?**

      A web page is a simple text file written in a markup language (called HTML) that encodes the layout of the document, graphical elements, and links to other documents, all with the help of tags.

   b. **What is Website?**

      A website (also called an internet site or a **home page** in the case of a personal site) is a group of HTML files that are stored on a hosting computer which is permanently connected to the internet (a web server).

      A website is normally built around a central page, called a **welcome page**, which offers links to a group of other pages hosted on the same server, and sometimes "external" links, which lead to pages hosted by another server.

   c. **What is Webserver?**

      A Web server is a program that uses HTTP (Hypertext Transfer Protocol) to serve the files that form Web pages to users, in response to their requests, which are forwarded by their computers' HTTP clients.

   d. **How Internet works?**

      The Internet is a large network of computers which communicate all together. It uses client-server model.
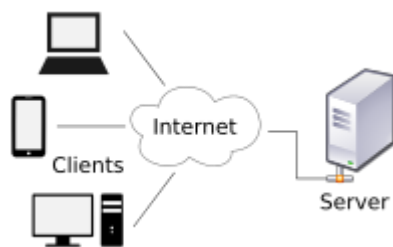
      Server - a computer program running to serve the requests of other programs, the "clients"

      Client - an application or system that accesses a service made available by a server

   e. **Tools required to create a webpage**

To create a webpage you need –

    a. A text editor to write your code like – Notepad, Sublime Text editor.

    b. A web browser to open your webpage.

2. **Introduction to HTML:** HTML (HyperText Markup Language) is not a programming language; it is a *markup language*, used to tell your browser how to structure the webpages you visit. HTML consists of a series of elements, which you use to enclose, wrap, or *mark up* different parts of the content to make it appear in a certain way, or act a certain way.

    a. **What is HTML?**

- HTML is the standard markup language for creating Web pages.

- HTML stands for Hyper Text Markup Language

- HTML describes the structure of Web pages using markup

- HTML elements are the building blocks of HTML pages

- HTML elements are represented by tags

- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on

    b. **Features of HTML:**

       i. HTML documents are plain text files

      ii. HTML is not case sensitive

     iii. HTML is a markup language, not programming language

     iv. HTML document can be viewed in any web browser

    c. **Terms used in HTML:** Following are few common terms used in HTML.

       i. **Angle brackets:** less than (<) and greater than (>) symbols used to surround an element to create a tag.

      ii. **Tag:** The HTML code that controls the appearance of an HTML document's content.

    d. **Attribute:** A property of an HTML element used to provide additional instructions to a given HTML tag. The attribute is specified in the start of HTML tag.

       i. **Value:** The attribute of a tag can have an value. For example-

        <tagname attributename = "value"> Text to be displayed</tagname>

      ii. **Elements:** An element in HTML refers to a *tag* (such as <head>, <body>, and <p>) or *element of structure* of a document (such as body, title, and paragraph).

iii. **Container or Non-empty Tag:** A container tag require an opening(on) tag and a closing(off) tag.

<tagname> Some Text </ tagname>

↑   ↑

Opening tag   closing tag

Opening tags are written in angular brackets (<>). Closing tags also written within angular brackets, but use a slash (/) before the tagname (</ >).

iv. **Empty tag:** An empty tag does not require a closing tag. These are written in angular brackets (<>). For Example:

e. **Structure of an HTML Document:** Let's see a basic html document structure.

```
<!DOCTYPE html>
<html>
        <head>
                <title>Page Title</title>
        </head>
        <body>
                <h1>My First Heading</h1>
                <p>My first paragraph.</p>
        </body>
</html>
```

- The <!DOCTYPE html> declaration defines this document to be HTML5
- The <html> element is the root element of an HTML page
- The <head> element contains meta information about the document
- The <title> element specifies a title for the document
- The <body> element contains the visible page content
- The <h1> element defines a large heading
- The <p> element defines a paragraph

f. **Creating and saving html document :-**

i. Create a new file in your text editor.

ii. Copy the HTML page example listed above.

iii. Paste the code into the new text file

iv. Save the file as index.html.

g. **Viewing HTML document: -** You can now open this file in a web browser to see what the rendered code looks like, and then edit the code and refresh the browser to see what the result is. To open the html file, double click on it, it will be open in default web

browser.

3. **Introduction to HTML Elements :-**
    a. **<!DOCTYPE> :-**
        i. The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.
        ii. It must only appear once, at the top of the page (before any HTML tags).
        iii. The <!DOCTYPE> declaration is not case sensitive.
        iv. The <!DOCTYPE> declaration for HTML is:
            <!DOCTYPE html>

    b. **The <html> element:** This element wraps all the content on the entire page, and is sometimes known as the root element. It has a **start** tag <html> and an **end** tag </html>.

    c. **The <head> element:** This element acts as a container for all the stuff you want to include on the HTML page that *isn't* the content you are showing to your page's viewers. This includes things like keywords and a page description that you want to appear in search results, CSS to style our content, character set declarations, and more. It has a **start** tag <head> and an **end** tag </head>.

    d. **The <title> element:** This sets the title of your page, that appears in the browser tab the page is loaded in. It has a **start** tag <title> and an **end** tag </title>.

    e. **The <body> element:** This contains *all* the content that you want to show to web users when they visit your page, whether that's text, images, videos, games, playable audio tracks, or whatever else. It has a **start** tag <body> and an **end** tag </body>.

4. **Heading elements:-** There are six heading elements — <h1>, <h2>, <h3>, <h4>, <h5>, and <h6>. Each element represents a different level of content in the document; <h1> represents the main heading, <h2> represents subheadings, <h3> represents sub-subheadings, and so on. Every heading element has a **start** tag and an **end** tag. For example:-
    <h1> This is heading h1 </h1>

    a. **Paragraph element:** In HTML, each paragraph has to be wrapped in a <p> element. It has a **start** tag <p> and an **end** tag </p>. Like:
    <p> This is a paragraph </p>