

TASK 3

Research and prepare a document on the following topics.

- **Basic knowledge in HTML, CSS, JavaScript**

- **HTML**

HTML stands for Hypertext Markup Language, and it is the most widely used language to write Web Pages.

- Hypertext refers to the way in which Web pages (HTML documents) are linked together. Thus, the link available on a webpage is called Hypertext.
- As its name suggests, HTML is a Markup Language which means you use HTML to simply "mark-up" a text document with tags that tell a Web browser how to structure it to display.

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

HTML Tags

HTML tags are commonly used to refer to HTML markup tags.

- HTML tags are keywords surrounded by angle brackets like
- HTML tags normally come in pairs like and
- The start tag is the first in a pair, while the end tag is the second.
- Start and end tags are sometimes known as opening and closing tags.

Important HTML Tags

1. **HTML**– It's the HTML's construction tag.
2. **DOCTYPE**– It's used to specify the kind of document. It's not an HTML tag at all.
3. **HEAD**– It's the tag that doesn't have any text in it but encompasses all of the others.
4. **TITLE**– When you wish to give your content a title, you use this tag. The title tag is nestled within the head tag.
5. **BODY**– This category is used to categorise everything on the website.
6. **DIV**– The div tag, commonly known as the division tag, is used to divide the information of a document.
7. **SPAN**– It's used to enclose the full file's text. It's mostly used to organise the file's inline information.

8. **A**– This is the category for hyperlinks. You can supply a link to a page or website where you'd want to lead the reader in this tag. It has the "href" property, which is crucial since the destination is provided into it.
9. **TABLE**– However, until some material is provided into it, this tag will have no effect. The layout is provided by a number of additional tags that are given along with it.
10. **THEAD**– It represents the table's top row, which contains the column headings.
11. **TBODY**– It's used to display real table data within the table tags.
12. **TR**- It's used to specify a table row.
13. **TD**- It's used to specify what should be sent in the table row's content.
14. **BR**- The line break command is used to separate the lines inside the file. There is no tag at the end.

Example of an HTML document:

```
<!DOCTYPE html>

<html>

<head>

<title>Title of the document</title>

</head>

<body>

<h1>This is a heading</h1>

<p>Document content goes here.... </p>

</body>

</html>
```

➤ **CSS**

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable. CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, as well as a variety of other effects.

CSS is easy to learn and understand but it provides a powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.

Basic CSS Structure and Syntax

A CSS Syntax rule consists of a selector, property, and its value.

Syntax:

```
selector { Property: value; }
```

Example:

```
h1{color: yellow;font-size:11px;}
```

- **Selector:** Selector indicates the HTML element you want to style. It could be any tag like <h1>, <title> etc.
- **Declaration Block:** The declaration block can contain one or more declarations separated by a semicolon. For the above example, there are two declarations:
color: yellow;
font-size: 11 px;
Each declaration contains a property name and value, separated by a colon.
- **Property:** A Property is a type of attribute of HTML element. It could be color, border etc.
- **Value:** Values are assigned to CSS properties. In the above example, value "yellow" is assigned to color property.

CSS Command List:

- color: color: red;
- background-color: background-color: hashtag#fff;
- font-family: font-family: Arial, sans-serif;
- font-size: font-size: 16px;
- text-align: text-align: center;
- line-height: line-height: 1.5;
- margin: margin: 10px;
- padding: padding: 5px;
- border: border: 1px solid #000;
- display: display: block;
- width: width: 100%;
- height: height: 50px;
- background-image: background-image: url("image.jpg");
- float: sets the position of an element relative to other elements, e.g. float: left;
- text-decoration: sets the appearance of text, e.g. text-decoration: underline;

➤ **JavaScript**

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

Features of JavaScript:

- All popular web browsers support JavaScript as they provide built-in execution environments.
- JavaScript follows the syntax and structure of the C programming language. Thus, it is a structured programming language.
- JavaScript is a weakly typed language, where certain types are implicitly cast (depending on the operation).
- JavaScript is an object-oriented programming language that uses prototypes rather than using classes for inheritance.
- It is a light-weighted and interpreted language.
- It is a case-sensitive language.
- JavaScript is supportable in several operating systems including, Windows, macOS, etc.
- It provides good control to the users over the web browsers.

Applications of JavaScript

- Client-side validation
- Dynamic drop-down menus
- Displaying date and time
- Displaying pop-up windows and dialog boxes (like an alert dialog box, confirm dialog box and prompt dialog box),
- Displaying clocks etc.

Example:

```
<script>  
document.write("Hello parvathy");  
</script>
```