1. HTML task:
2. What is HTML? Give basic structure of the HTML page?

* HTML stands for Hyper text Markup language. It standard markup language for creating webpages.
* Basic Structure:

<!DOCTYPE html>

<html lang="en">

<head>

    <title>Title of Web page</title>

</head>

<body>

Content of webpage

</body>

</html>

1. Difference between Inline and block line element?

* Block line elements:
* A block level element always starts on a new line.
* It takes up the full width available (i.e. stretches out from left to right).
* <div>: Defines the block level section in the document.
* E.g.

<div style=” background-colour: black;”>

<h2>Block line element</h2>

<p>A block level element always starts on a new line. It takesup the full width available (i.e. stretches out from left to right). </p>

</div>

* Inline elements:
* Inline does not start on new line.
* It takes up as much width as necessary.
* <span>: Defines the inline section in the document.
* E.g.

<p>

<span style="color: blue; font-weight: bold">Inline element</span> does not start on new line. It takes up as much width as necessary.

</p>

1. CSS Task:
2. Explain the different ways in which CSS can be applied to HTML, what is the preferred way and why?

* There are three ways to implements CSS in html document

1. Inline

* An Inline CSS is used to apply style only to a single html element.
* “style” attribute is used in an HTML element.
* E.g.

<h1 style="color:blue;">A Blue Heading</h1>

1. Internal

* It is used to define style for a single HTML page.
* It is defined in the <head> section of an HTML page, within a <style> element.
* E.g.

<style>

h1 {

color: blue;

}

</style>

1. External

* An external style sheet is used to define the style for many HTML pages.
* External style sheet link is been added in <head> section of each HTML pages.
* E.g.

In html pages

<head>

<link rel="stylesheet" href="styles.css">

</head>

In Styles.css page

body {

background-color:palegoldenrod;

font-family: sans-serif;

}

* One should write long CSS style code in separate files, as dividing the code in portions makes it more readable

1. What are different CSS selectors, with example explain Element, Class and Id selectors.

* We can divide CSS selectors into five categories:

1. Simple selectors (select elements based on name, id, class)
2. Combinator selectors (select elements based on a specific relationship between them)
3. Pseudo-class selectors (select elements based on a certain state)
4. Pseudo-elements selectors (select and style a part of an element)
5. Attribute selectors (select elements based on an attribute or attribute value)

* CSS Element selectors
* The element selector selects HTML elements based on the element name.
* E.g.

<style>

      p {

        text-align: center;

        color: red;

      }

    </style>

* CSS id Selector
* The id selector uses the id attribute of an HTML element to select a specific element.
* The id of an element is unique within a page, so the id selector is used to select one unique element!
* To select an element with a specific id, write a hash (#) character, followed by the id of the element.
* E.g.

<style>

      #para1 {

        text-align: center;

        color: red;

      }

    </style>

* CSS Class Selector
* The class selector selects HTML elements with a specific class attribute.
* To select elements with a specific class, write a period (.) character, followed by the class name.
* E.g.

<style>

      .center {

        text-align: center;

        color: red;

      }

    </style>

1. With the help of a diagram explain CSS Box Model.

* In CSS, the term "box model" is used when talking about design and layout.
* The CSS box model is essentially a box that wraps around every HTML element. It consists of margins, borders, padding, and the actual content. The image below illustrates the box model:Graphical user interface

  Description automatically generated
* Explanation of the different parts:

1. **Content** - The content of the box, where text and images appear
2. **Padding** - Clears an area around the content. The padding is transparent
3. **Border** - A border that goes around the padding and content
4. **Margin** - Clears an area outside the border. The margin is transparent
5. JavaScript Task
6. List down ways in which JavaScript command can be added to a webpage, what is the preferred way.
7. JavaScript codes are written within the <script> tags
8. There are two ways to implement JavaScript code in html document
9. Inline JavaScript

-In <head> under the <script> tag codes of JavaScript’s are written

-E.g.

<!DOCTYPE html>

<html>

<head>

   <script>

      function myFunction() {

         document.getElementById("example").innerHTML = "I love learning JavaScript!";

      }

   </script>

</head>

<body>

   <h1>A Web Page</h1>

   <p id="example">What do I love?</p>

   <button type="button" onclick="myFunction()">Answer!</button>

</body>

</html>

* In <body> under the <script> tag codes of JavaScript’s can also be written

<!DOCTYPE html>

<html>

<body>

   <h1>A Web Page</h1>

   <p id="example">What do I love?</p>

   <button type="button" onclick="myFunction()">Answer!</button>

   <script>

      function myFunction() {

         document.getElementById("example").innerHTML = "I love learning JavaScript";

      }

   </script>

</body>

</html>

1. External JavaScript

- The external script will behave the same way as it would when written in a <script> tag.

- JavaScript code is place it in a separate file. The file name can be anything you want, though the convention is to name it **scripts**.

- E.g.

In myScripts.js

function myFunction() {

  document.getElementById("example").innerHTML = "I love JavaScript!";

}

1. One should write long JavaScript code in separate files, as dividing the code in portions makes it more readable