**PROGRAM-3**

**a)write a html program that makes use of <article><aside><figure><figcaption><footer><header><main><nav><section><div><span> tags**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>HTML Structure Example</title>

<style>

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 0;

line-height: 1.6;

}

header, footer {

background-color: #333;

color: white;

text-align: center;

padding: 10px 0;

}

nav {

background-color: #555;

color: white;

padding: 10px;

}

nav a {

color: white;

text-decoration: none;

margin-right: 15px;

}

main {

display: flex;

flex-wrap: wrap;

padding: 20px;

gap: 20px;

}

article {

flex: 3;

background-color: #f9f9f9;

padding: 20px;

border-radius: 8px;

box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);

}

aside {

flex: 1;

background-color: #f1f1f1;

padding: 20px;

border-radius: 8px;

box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);

}

figure {

margin: 0;

padding: 0;

}

figure img {

width: 100%;

border-radius: 8px;

}

figcaption {

text-align: center;

margin-top: 5px;

font-style: italic;

}

section {

margin-bottom: 20px;

}

footer span {

color: #ffcc00;

}

</style>

</head>

<body>

<header>

<h1>Welcome to My Structured Webpage</h1>

</header>

<nav>

<a href="#home">Home</a>

<a href="#about">About</a>

<a href="#contact">Contact</a>

</nav>

<main>

<article>

<header>

<h2>Main Article</h2>

</header>

<section>

<p>

This is the main content of the webpage. The `<article>` tag is used to represent self-contained content that could stand on its own.

</p>

<figure>

<img src="https://via.placeholder.com/600x400" alt="Example image">

<figcaption>Figure 1: Placeholder image for demonstration</figcaption>

</figure>

</section>

<section>

<p>

Additional details about the main content can be included in different `<section>` elements, making the structure more organized.

</p>

</section>

<footer>

<p>Written by <span>John Doe</span></p>

</footer>

</article>

<aside>

<h2>Sidebar</h2>

<p>

This is supplementary content placed inside the `<aside>` element. It could include links, tips, or advertisements.

</p>

</aside>

</main>

<footer>

<p>&copy; <span>2025</span> My Structured Webpage. All rights reserved.</p>

</footer>

</body>

</html>

**Key Tags Demonstrated:**

1. **<header>**: Used for the main page title and the article's title.
2. **<nav>**: Contains navigation links.
3. **<main>**: Wraps the primary content (article and aside).
4. **<article>**: Contains the main article content.
5. **<section>**: Organizes the article content into logical sections.
6. **<figure> and <figcaption>**: Used to display an image with a caption.
7. **<aside>**: Provides supplementary content, such as a sidebar.
8. **<footer>**: Used for the page footer and the article footer.
9. **<div>**: Implicitly used for styling and layout (e.g., flexbox).
10. **<span>**: Inline styling (highlighting text in the footer).

**3)B) WRITE A html program to embed audio and video in html web page**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Embed Audio and Video</title>

<style>

body {

font-family: Arial, sans-serif;

text-align: center;

margin: 20px;

line-height: 1.5;

}

audio, video {

margin: 20px 0;

border: 2px solid #ccc;

border-radius: 8px;

}

</style>

</head>

<body>

<header>

<h1>Audio and Video Embedding Example</h1>

</header>

<main>

<!-- Embedding Audio -->

<section>

<h2>Audio Section</h2>

<p>Listen to this audio clip:</p>

<audio controls>

<source src="audio-sample.mp3" type="audio/mpeg">

<source src="audio-sample.ogg" type="audio/ogg">

Your browser does not support the audio element.

</audio>

</section>

<!-- Embedding Video -->

<section>

<h2>Video Section</h2>

<p>Watch this video:</p>

<video controls width="640" height="360">

<source src="video-sample.mp4" type="video/mp4">

<source src="video-sample.ogg" type="video/ogg">

Your browser does not support the video element.

</video>

</section>

</main>

<footer>

<p>&copy; 2025 Media Embedding Example</p>

</footer>

</body>

</html>

**Key Features:**

1. **Audio Embedding:**
   * The <audio> element is used to embed audio.
   * controls attribute adds playback controls like play, pause, and volume.
   * Multiple <source> tags are provided to ensure compatibility with various formats (e.g., MP3, OGG).
2. **Video Embedding:**
   * The <video> element is used to embed video.
   * controls attribute provides playback controls.
   * width and height attributes define the size of the video.
   * Multiple <source> tags are included for format compatibility (e.g., MP4, OGG).
3. **Fallback Text:**
   * Both <audio> and <video> elements include fallback text for browsers that do not support these elements.

**3)c) write a html program to apply different types (or levels of styles or style specification formats)-inline,internal,external styles to html elements (identify selector,property and value)**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>HTML Styling Example</title>

<!-- External CSS -->

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

<!-- Internal CSS -->

<style>

/\* Internal CSS: Styling all <h1> elements \*/

h1 {

color: blue;

text-align: center;

font-family: Arial, sans-serif;

}

/\* Internal CSS: Styling elements with the class 'highlight' \*/

.highlight {

background-color: yellow;

font-weight: bold;

padding: 5px;

}

/\* Internal CSS: Styling the <footer> element \*/

footer {

text-align: center;

font-size: 0.9em;

color: gray;

margin-top: 20px;

}

</style>

</head>

<body>

<header>

<!-- Inline CSS: Apply styles directly to the element -->

<h1 style="font-size: 36px; text-shadow: 2px 2px #aaa;">HTML Styling Example</h1>

</header>

<main>

<p>This paragraph demonstrates the use of <span class="highlight">internal CSS</span> and external CSS.</p>

<p>Inline styles are applied directly to the HTML element.</p>

</main>

<footer>

<p>Footer text styled using internal CSS and external CSS.</p>

</footer>

</body>

</html>

**Explanation of Style Levels:**

1. **Inline CSS**:
   * **Location**: Directly within an HTML element using the style attribute.
   * **Example**:

<h1 style="font-size: 36px; text-shadow: 2px 2px #aaa;">HTML Styling Example</h1>

* + **Selector**: The HTML element itself (e.g., <h1>).
  + **Property and Value**: font-size: 36px;, text-shadow: 2px 2px #aaa;.

1. **Internal CSS**:
   * **Location**: Inside a <style> block within the <head> section of the document.
   * **Example**:

h1 {

color: blue;

text-align: center;

font-family: Arial, sans-serif;

}

* + **Selector**: h1.
  + **Properties and Values**: color: blue;, text-align: center;, font-family: Arial, sans-serif;.

1. **External CSS**:
   * **Location**: In a separate CSS file linked using the <link> element.
   * **Example (styles.css)**:

body {

font-family: Verdana, sans-serif;

line-height: 1.6;

margin: 20px;

}

* + **Selector**: body.
  + **Properties and Values**: font-family: Verdana, sans-serif;, line-height: 1.6;, margin: 20px;.

**Notes:**

* Inline styles have the **highest priority** and override internal and external styles.
* Internal styles override external styles for the same element if both are applied.
* External styles are reusable across multiple HTML files, making them the most efficient for large projects.