WEEK-3

3a. Write a HTML program, that makes use of \<article\>, \<aside\>, \<figure\>, \<figcaption\>, \<footer\>, \<header\>, \<main\>, \<nav\>, \<section\>, \<div\>, \<span\> ,\<audio\> and \<video\> tags.
Description:

1. \<article\>

The \<article\> tag is used for self-contained content that could be distributed independently, such as blog posts, news articles, or forum posts.

Ex: article>
  \<h2\>Understanding Quantum Computing\</h2\>
  \<p\>Quantum computing leverages the principles of quantum mechanics...\</p\>
\</article\>

2. \<aside\>

The \<aside\> tag is used for content tangentially related to the main content, such as sidebars, pull quotes, or advertisements.

Ex: \<aside\>
  \<h3\>Did you know?\</h3\>
  \<p\>Albert Einstein won the Nobel Prize in Physics in 1921.\</p\>
\</aside\>

3. \<figure\>
The \<figure\> tag is used for content like images, charts, or illustrations that are referenced in the main content. It's often paired with \<figcaption\>.
Ex: figure>
  \<img src="nature.jpg" alt="A serene forest"\>
  \<figcaption\>A serene forest in autumn.\</figcaption\>
\</figure\>

4. **\<footer\>**
The \<footer\> tag represents footer content, such as authorship information, copyright, or links.
Ex: \<footer\>
  \<p\>© 2025 MyWebsite. All rights reserved.\</p\>
\</footer\>

5. **\<header\>**

The <header> tag is used for introductory content or navigational links, usually at the beginning of a section or page

Ex: <header>

  <h1>Welcome to My Blog</h1>

  <nav>

    Home

    About

  </nav>

</header>

6. **<main>**

The <main> tag represents the main content of a document, excluding repeated content like headers, footers, and sidebars.

Ex: <main>

  <h2>Latest News</h2>

  <p>Stay updated with the latest industry news and trends...</p>

</main>

7. **<nav>**

The <nav> tag is used for navigation links.

Ex: <nav>

    Home

    Services

    Contact

</nav>

8. **<section>**

The <section> tag defines sections of content that share a common theme or purpose.

Ex: <section>

  <h2>About Us</h2>

  <p>Our mission is to provide high-quality content...</p>

</section>

9.<div>

The <div> tag is a general-purpose container with no semantic meaning, often used for grouping content or applying CSS.

Ex: <div class="container">

  <h2>Our Services</h2>

  <p>We offer a variety of professional services...</p>

</div>

10. ****

The tag is an inline container used to style or manipulate small portions of text.

Ex: <p>Welcome to MyWebsite, your go-to resource for learning.</p>

11.Audio tag:

```
<audio controls>
    <source src="audio-file.mp3" type="audio/mpeg">
    <source src="audio-file.ogg" type="audio/ogg">
    Your browser does not support the audio element.
</audio>
```

12.Video tag:

```
<video controls width="640" height="360">
    <source src="video-file.mp4" type="video/mp4">
    <source src="video-file.ogg" type="video/ogg">
    Your browser does not support the video tag.
    </video>
```

Program:

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Music Player</title>
</head>
<frameset rows="15%,*,10%" border="0">
 <frame src="header.html" name="header"
noresize scrolling="no">
 <frame src="home.html" name="main">
 <frame src="footer.html" name="footer"
noresize scrolling="no">
</frameset>
</html>
```

Header.html

```
<html>
<head>
 <style>
 body{
 margin:0;
 padding:0;
 background-color:#333;
 color:white;
 font-family:Arial,Sans-serif;
 }
 nav{
 display:flex;
 justify-content:space-around;
```

```
padding:10px 0;
background-color:#444;
}
nav a{
text-decoration:none;
color:white;
font-weight:bold;
}
</style>
</head>
</body>
<div>
  <h1 style="margin:0;padding-left:20px;">Music Video</h1>
  <nav>
  <a href="home.html" target="main">Home</a>
  <a href="music.html" target="main">Music</a>
  <a href="video.html" target="main">Video</a>
  <a href="feedback.html" target="main">Feedback</a>
  </nav>
</div>
</body>
</html>
```

Footer.html
```
<html>
<head>
 <title>Footer</title>
</head>
<bodystyle="background-color:orange;color:white;text-align:center;">
  <p>SudheshnaDevi,copyright 2025</p>
</body>
</html>
```

Home.html
```
<html>
<head>
</head>
<body>
 <h2>Welcome to the Music Player</h2>
 <p>Enjoy your favorite songs and Videos</p>
</body>
</html>
```

Music.html
```
<html>
<head>
</head>
<body>
  <h2>Select Your Song</h2>
  <p>Song heading</p>
  <audio controls>
     <source src = "/home/pllab/Downloads/Song1.mp3"type = "audio/mp3">
     Your browser doesnot support the audio element.
```

```
    </audio>
    <p>Song heading</p>
    <audio controls>
      <source src = "/home/pllab/Downloads/Song2.mp3"type = "audio/mp3">
      Your browser does not support the audio element.
    </audio>
</body>
</html>
```

Video.html
```
<html>
<head>
</head>
<body>
    <h2>Watch Your Favorite Videos</h2>
    <video Control Width = "600">
      <source src = "https://cdn-
cf.sharechat.com/bd5223f_s1w/contents/sc_75203956/compressed/ArXogppwroUVpeDRgbGXI8R
Qd65ddyH5y4.mp4?tenant=sc&referrer=feed-service&f=HNy5y4.mp4"type = "video/mp4">
      Your browser doesnot support the videotag.
    </video>
</body>
</html>
```

Feedback.html
```
<html>
<head>
</head>
<body>
    <h2>Feedback Form</h2>
    <form>
      <label>Name:</label><br>
      <input type = "text" name = "name"><br><br>
      <label>Email: </label><br>
      <input type = "email"name = "email"><br><br>
      <label>Comment:</label><br>
      <textarea name = "comment">
      </textarea><br><br>
      <bottom type = "Submit">Sent</bottom>
    </form>
</body>
</html>
```

OUTPUT

Music Video

Home	Music	Video	Feedback

Welcome to the Music Player

Enjoy your favorite songs and Videos

SudheshnaDevi,copyright 2025

Music Video

Home	Music	Video	Feedback

Select Your Song

Song heading

▶ 0:00 / 3:49 ━━━━ 🔊 ⋮

Song heading

▶ 0:00 / 0:00 ━━━━ 🔊 ⋮

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Music Video

Home	Music	Video	Feedback

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Music Video

| Home | Music | Video | Feedback |

Feedback Form

Name:

Email:

Comment:

Sent

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3b. **Write a 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).**
Desription:

CSS (Cascading Style Sheets) is a language used to style and layout web pages. It controls the presentation of HTML elements, including colors, fonts, spacing, positioning, and responsiveness.

Syntax: selector { property: value; }

- **Key Features of CSS:**
  - Separation of content (HTML) and design (CSS).
  - Easier maintenance and updates for web pages.
  - Support for responsive design to adapt to different screen sizes.

There are three main ways to apply CSS to a web page:

a. Inline CSS

- Written directly inside the HTML element's `style` attribute.
- Applies style only to that specific element.

  Example:

        <p style="color: red; font-size: 20px;">This is inline CSS.</p>

Internal CSS

- Defined inside a `<style>` tag in the `<head>` section of the HTML document.
- Useful for applying styles to a single page.

Example:`<head>`
  `<style>`
    p {
      color: green;
      font-size: 18px;
    }
  `</style>`
`</head>`
c. External CSS

- Written in a separate `.css` file and linked to the HTML document using a `<link>` tag.
- Ideal for styling multiple pages and maintaining consistency.

  HTML Example:

`<head> <link rel="stylesheet" href="styles.css"> </head>`
body {
  background-color: lightblue;
}

h1 {
  color: navy;
  font-size: 24px;
}
Styles.css
body {
  background-color: lightblue;
}

h1 {
  color: navy;
  font-size: 24px;
}
Program:

Internal.html
`<html>`
`<head>`
`<title>Internal CSS Example</title>`
`<style>`
body {
font-family: Arial, sans-serif;
background-color: #f9f9f9;
margin: 20px;
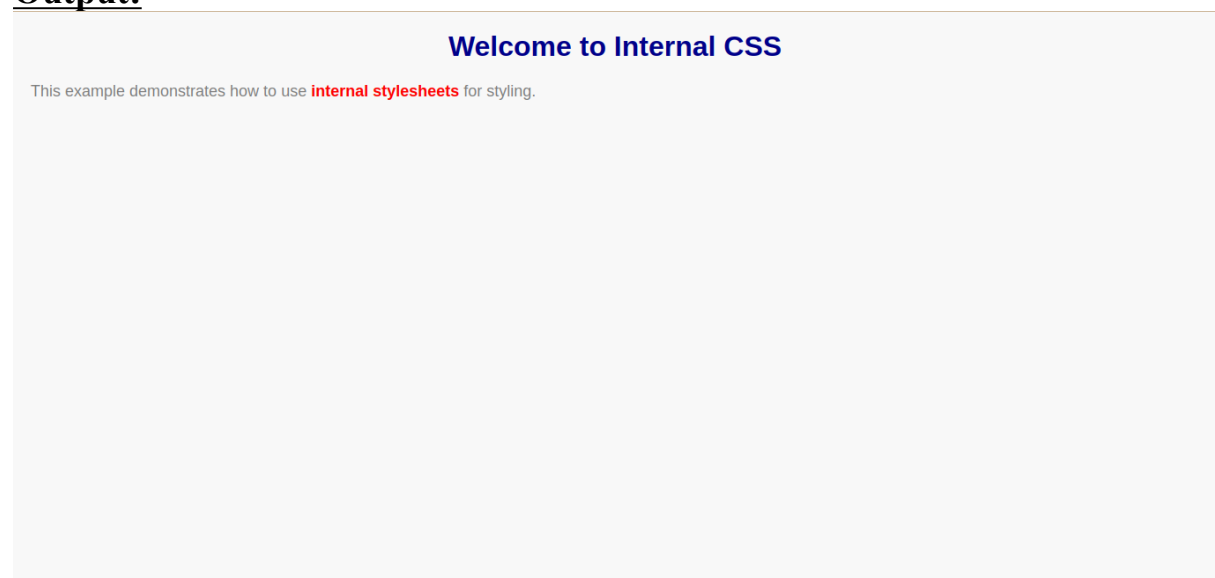}
h1{

```
color: darkblue;
text-align: center;
}
p{
color: gray;
font-size: 18px;
}
.highlight {
color: red;
font-weight: bold;
}
</style>
</head>
<body>
<h1>Welcome to Internal CSS</h1>
<p>This example demonstrates how to
use <span class="highlight">internal
stylesheets</span> for styling.</p>
</body>
</html>
```
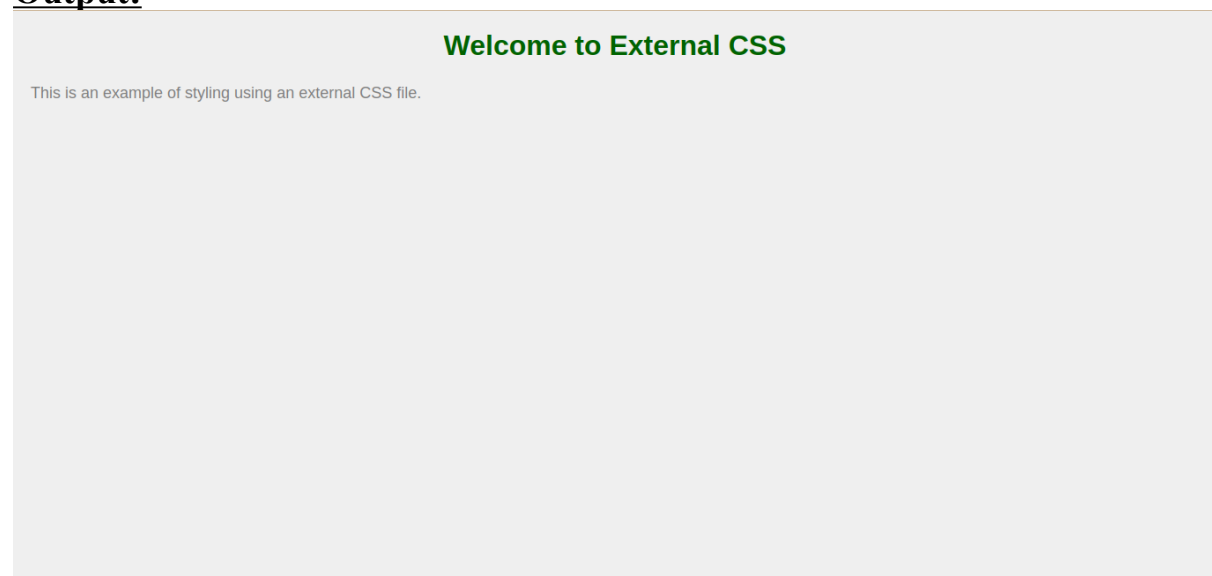
Output:

Welcome to Internal CSS

This example demonstrates how to use **internal stylesheets** for styling.

Styles.css

/* Styling the body */

```
body {
    font-family: Arial, sans-serif;
    background-color: #f0f0f0;
    margin: 20px;
}
/* Styling the heading */
h1 {
    color: darkgreen;
    text-align: center;
}
/* Styling the paragraph */
p {
    color: gray;
    font-size: 18px;
    line-height: 1.5;
}
```

External.html

```
<html>
<head>
<title>External CSS Example</title>
<link rel="stylesheet" href="styles.css">
</head>
<body>
<h1>Welcome to External CSS</h1>
<p>This is an example of styling using an external CSS file.</p>
</body>
</html>
```

Output:

Welcome to External CSS

This is an example of styling using an external CSS file.

Inline.html

```
<html>
```

```
<head>
<title>Inline CSS Example</title>
</head>
<body>
<h1 style="color: blue; text-align: center;">Welcome
to Inline CSS</h1>
<p style="font-size: 18px; color: gray;">
This is an example of using <span style="color: red;
font-weight: bold;">inline CSS</span> for styling.
</p>
</body>
</html>
```

Output:

<h3 align="center" style="color:blue">Welcome to Inline CSS</h3>

<small style="color:gray">This is an example of using <b style="color:red">inline CSS for styling.</small>

Viva questions

1. **What is HTML5?**
   o HTML5 is the latest version of the HTML standard for structuring and presenting web content.
   o It introduces new elements, attributes, and APIs.
2. **What are some new features in HTML5?**
   o New semantic elements: <article>, <section>, <header>, <footer>, <aside>.
   o Multimedia elements: <audio>, <video>.
   o APIs: Canvas API, Web Storage, Geolocation API.
3. **What is the purpose of semantic elements in HTML5?**
   o Semantic elements provide meaning and structure to web pages, improving accessibility and SEO.
4. **What is the difference between <section> and <div>?**
   o <section> is a semantic element used for grouping related content with a heading.
   o <div> is a generic container with no semantic meaning.
5. **How does the <canvas> element work in HTML5?**
   o It is used to draw graphics via JavaScript.
   o Provides a drawing area defined by height and width.

6. **What are the types of CSS?**
   - Inline: Applied directly to an element using the <style> attribute.
   - Internal: Defined within a <style> tag in the <head>.
   - External: Written in a separate .css file.
7. **What is the syntax of CSS?**
- CSS syntax consists of a selector and a declaration block:

      selector {
      property: value;
      }