

## Observation - 2

### Scenario - 1

You're building a one-page online resume for yourself. This page is standalone, meaning it won't be linked to any other pages on the web. You want to style it with a specific color scheme, font family, and layout, but you want to keep everything within HTML.

Question:- How would you apply styles to this resume directly within the HTML file.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
        scale=1.0">
    <title> my Resume </title>
    <style>
        body {
            font-family: Arial, sans-serif;
            color: #333;
            background-color: #f4f4f4;
            margin: 0;
            padding: 0;
        }
        .container {
            width: 80%;
            margin: auto;
            background: #fff;
            padding: 20px;
        }
    </style>

```

CSS code

root : #3498db; font-family: 'Raleway', sans-serif; color: #2eccc1; background-color: #f4f4f4; text-align: center; font-size: 1em; margin-bottom: 10px; padding: 10px; border: 1px solid #ccc; border-radius: 5px; box-sizing: border-box; width: 100%; height: 100%;

body { font-family: 'Raleway', sans-serif; color: #2eccc1; background-color: #f4f4f4; text-align: center; font-size: 1em; margin-bottom: 10px; padding: 10px; border: 1px solid #ccc; border-radius: 5px; box-sizing: border-box; width: 100%; height: 100%;}

font-family : sans (-font. primary);  
background-color : var(--back-ground-color);  
color : var(-text-color);  
margin : 0, padding : 10px, border : 1px solid black;  
padding : 20px;

header

```
text-align : center;  
padding : 20px;  
background-color :  
color : white;
```

header h1 {

font-family: var(--font-secondary);  
font-size: 2.5em;  
margin: 0;  
3 headers P {

font size: 1.2em;  
3 sections

Margin: 20px 0;

button }

<body>

<form method = "post">

Name : <input type = "text" name = "name" /> <br> <input type = "text" name = "email" /> <br> <input type = "text" name = "course" /> <br>

<input type = "submit" value = "Register" />

String name = request.getParameter("name");

String email = request.getParameter("email");

String course = request.getParameter("course");

If (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

if (name != null && email != null && course != null)

{

Output:-

Submitted Data:

Name : Alice

Email : alice@jmail.com

Course : Java Programming

Output:-

Submitted Data:

Name : Alice

Email : alice@jmail.com

Course : Java Programming

```
padding: 10px 20px;  
border: none;  
border-radius: 5px;  
cursor: pointer;  
color: white;  
background-color: var(--primary);  
background-color: var(--primary-color);  
color: white;
```

```
}
```

```
.btn-secondary {  
background-color: var(--secondary-color);  
color: white;  
}
```

Output:-

```
My website <code></code>  
<h1>Welcome to my</h1>  
<h2>website</h2>
```

Scenario-4: A university portal requires a JSP page for students to register for workshops by submitting their name, email and course. Submitted information should display on the same page.

Question: Write a JSP page that includes HTML code =

```
<%@ page import = "java.io.* , java.util.* , javax.servlet.*" %>  
  
http://localhost:8080/
```

```
<html>
```

Scenario 5:- A library maintains its book catalog in XML format, requiring an XSD schema with specific constraints (ISBN must be 13 digits, publication year is 4 digits, and availability is either "Available" or "checked out")

### XML Document

```
<catalog>
  <books>
    <book>
      <title>Effective Java</title>
      <author>Joshua Bloch</author>
      <isbn>9780134685991</isbn>
      <publicationYear>2018</publicationYear>
      <genre>Programming</genre>
      <availability>Available</availability>
    </book>
  </catalog>
</catalog>
```

XSD schema:

```
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="catalog">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="book" maxOccurs="unbounded">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="title" type="xsd:string"/>
              <xsd:element name="author" type="xsd:string"/>
              <xsd:element name="isbn" type="xsd:string" pattern="^{\d{13}}$"/>
              <xsd:element name="publicationYear" type="xsd:int"/>
              <xsd:element name="genre" type="xsd:string"/>
              <xsd:element name="availability" type="xsd:string" pattern="Available|checked out"/>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```



`<p><xsl:for-each select="content"></p>`

```
<xsl:for-each>
<body>
<html>
<xsl:template>
<xsl:stylesheet>
```

**Output:-**

Breaking News - 2024-09-11 09:00 AM (IST)

By : charith

Summary : (This is the) summary of the article.

Content : (This is the) full content of the article, providing detailed information.

**Output:-**

Breaking News - 2024-09-11 09:00 AM (IST)

By : charith

Summary : (This is the) summary of the article.

Content : (This is the) full content of the article, providing detailed information.

**Scenario -7:** write an XSLT file to transform the XML data into an HTML format.

**XSL Sample Data :-**

```
<articles>
  <article>
    <title> Technology Advances in Blockchain </title>
    <author> charith </author>
    <date> 2024-09-12 </date>
    <summary> Explores the latest trends in technology </summary>
  <content> Focus All to black chain, technology is evolving </content>
<article>
  <title> AI </title>
  <author> John Doe </author>
  <date> 2024-09-13 </date>
  <summary> Discusses the impact of AI on various industries </summary>
<content> AI is revolutionizing various industries like healthcare, finance, and manufacturing. </content>
```

### XSLT code

```
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/xsl/Transform" version="1.0">  
  <xsl:template match="/articles">  
    <html>  
      <body>  
        <xsl:for-each select="article">  
          <hr><xsl:value-of select="title"/>  
          - <xsl:value-of select="data"/>  
          <br></hr>  
          <p><xsl:value-of select="author"/>  
          <i><xsl:value-of select="summary"/></i></p>  
          <p><xsl:value-of select="content"/></p>  
        </xsl:for-each>  
      </body>  
    </html>  
  </xsl:template>  
</xsl:stylesheet>
```

### Output:

Technology Advancements - 2024-09-12

By : Charith

Summary : Explore the latest trends in technology

Content : From AI to blockchain, technology is

evolving.

**Scenario - 6:** An online news website needs to display articles stored in XML format in a user-friendly HTML format. Each article includes a title, author, date, summary and content.

XML Data :-

```
<articles>
  <article>
    <title> Breaking News </title>
    <author> Charlie </author>
    <date> 2024-09-11 </date>
    <summary> Summary of this article </summary>
    <content> Full content of the article </content>
  </article>
</articles>
```

XSLT Code :-

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/xsl/Transform" version="1.0">
  <xsl:template match="/articles">
    <html>
      <head>
        <title> Charlie News </title>
      </head>
      <body>
        <xsl:for-each select="article">
          <h2><xsl:value-of select="title"/></h2>
          <p><xsl:value-of select="date"/></p>
          <p><xsl:value-of select="author"/></p>
          <p><xsl:value-of select="summary"/></p>
        </xsl:for-each>
      </body>
    </html>
  </xsl:template>
</xsl:stylesheet>
```

### Scenario - 3

You are working on a large website, with multiple pages, all of which need to have a consistent design. The site already uses an external CSS file for styling.

Question : How would you efficiently apply new style across all pages of website.

#### HTML Code

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>my website</title>
<link rel="stylesheet" href="styles.css">
</head>
<body>
<header>
    <h1> welcome to my website </h1>
</header>
<div class="container">
    <p> this is a sample paragraph on homepage </p>
    <button>click me </button>
</div>
</body>
</html>
```

```
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title> Promotional Button </title>
</head>
<body>
<h1> welcome to our website ! </h1>
<p> checkout our latest promotional offer by clicking  
the button below: </p>
<button style="background-color: #ff5733;  
color: white;  
padding: 10px 20px;  
border: none;  
border-radius: 5px;  
cursor: pointer;"> Checkout  
Promotional  
Button
</button>
</body>
</html>
```

Output:

### Promotional Button

Welcome to our website  
checkout our latest promotional offer by  
clicking the button below

Promotional Button

## <h2> Experience </h2>

<p> Previous roles & accomplishments in web development & design </p>

```
</div>
<div class="footer">
<p> Contact : meena@gmail.com </p>
</div>
</div>
</body>
</html>
```

Output

My Resume

Meeena - web developer / designer.

Passionate web developer with Experience.

Experience previous roles & accomplishment.

Skills - HTML, CSS.

Contact: meena@gmail.com

Scenario - 2

You are tasked with making quick adjustments to a web page that already has a fully developed External style sheet. The marketing team requests that a single button on the home page be highlighted with different background.

- Question:- How would you apply a specific background color to this button without altering external style sheet.

```
<!DOCTYPE html>
<html lang="en">
<head>
```

```
border-radius: 2px;  
box-shadow: 0 0;  
} h1, h2, h3 {  
    color: #007BFF;  
}  
p {  
    line-height: 1.6;  
}  
header {  
    text-align: center;  
    margin-bottom: 20px;  
}  
.section {  
    margin-bottom: 20px;  
}  
/br/>  
</style>  
<head>  
<body>  
<div class = "container">  
<div class = "header">  
<h1> Meena </h1>  
<p> web developer / Designer </p>  
</div>  
<div class = "section">  
<h2> about me </h2>  
<p> passionate web developer with experience </p>  
</div>  
<div class = "section">  
<h2> skills </h2>  
<ul>  
<li> HTML, CSS, JavaScript </li>  
</ul>  
</div>  
<div class = "section">
```