Academic Year 2023 - 2024   SAP ID: 60019220133

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Branch: CSE (ICB)   **Div: B1**

Course: Web Application Development Laboratory

EXPERIMENT NO. 2

A) Design a web page using External/Internal/Embedded Style Sheets.

Inline:

```html
<div class="heading">
    <h1 style="font-family: 'Comfortaa', sans-serif; font-size: 60px;">Divy Mav</h1>
    <img src="https://static.everypixel.com/ep-pixabay/0329/8099/0858/84037/3298099085884037069-head.png">
    <h3 class="cont-data">Hello, I am Divy Mav👋 a student at D.J Sanghvi College of Engineering</h3>
    <button class="contact" style="font-size:20px;margin: 0;">Contact Me!</button>
</div>
```

Embedded:

```html
<style>
    body{
        margin:none;
        padding: none;
        background: rgb(203,204,171);
        background: linear-gradient(339deg, rgba(203,204,171,1) 36%, rgba(255,0,61,1) 86%);
        background-repeat: no-repeat;
        background-position: center;
        background-size: contain;
        color: white;
    }
    .container{
        margin: 0;
        padding: 0;
        display: flex;
        justify-content: center;
        align-items: center;
        flex-direction: column;
        width: 100%;
    }
</style>
```

External:

```
head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Divy Mav</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Comfortaa&display=swap" rel="stylesheet">
    <link rel="stylesheet" href="styles.css">
```
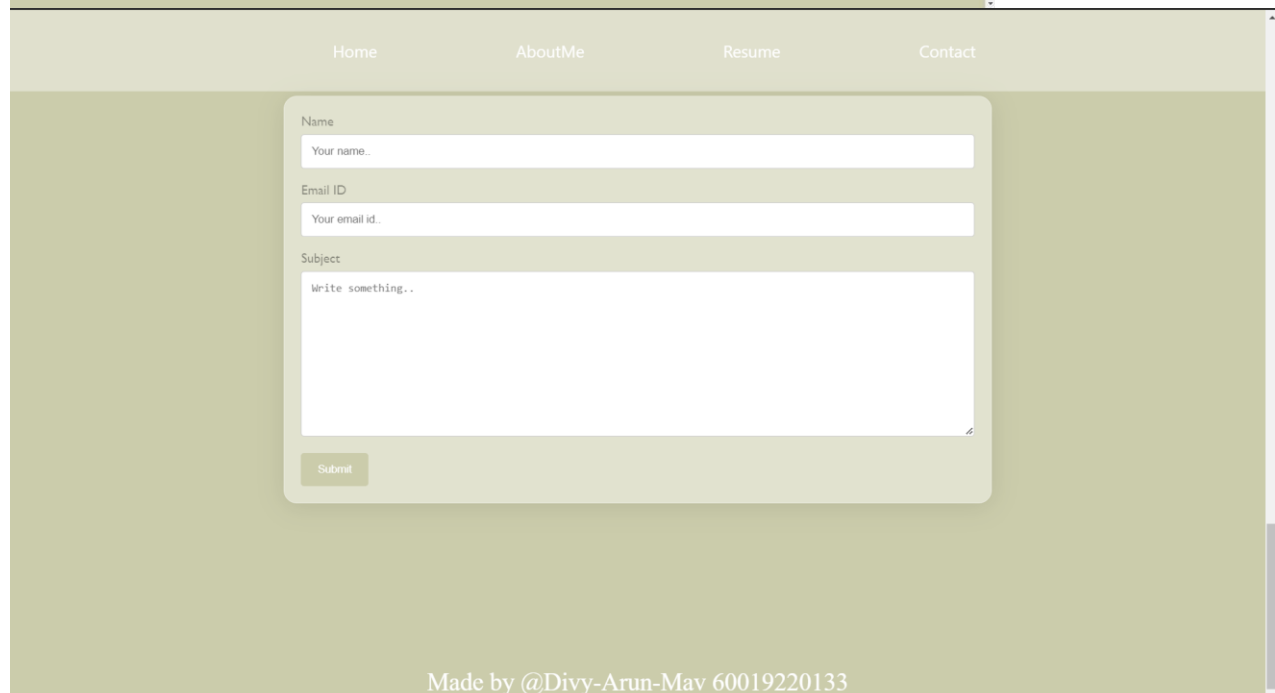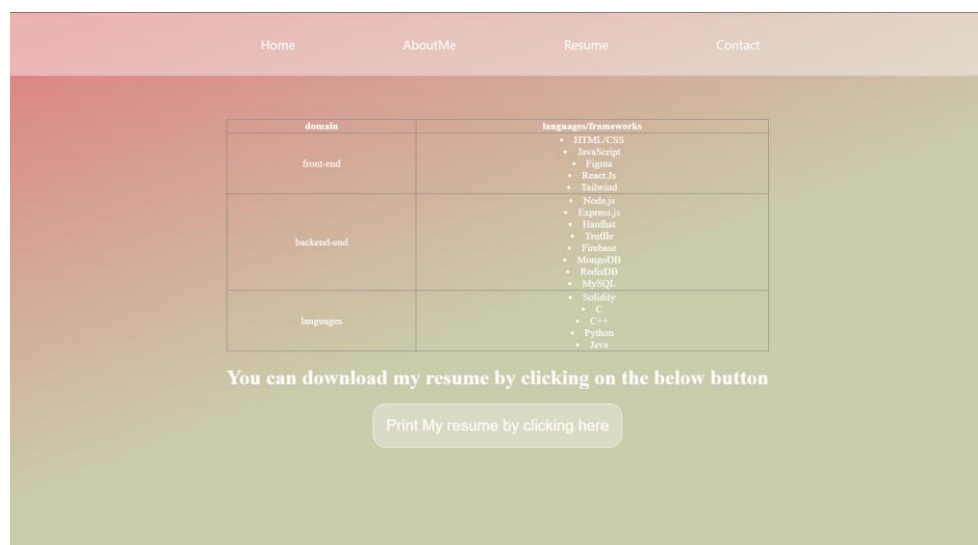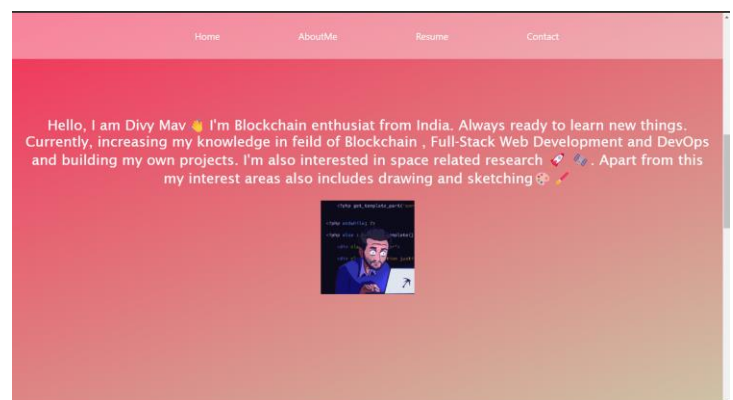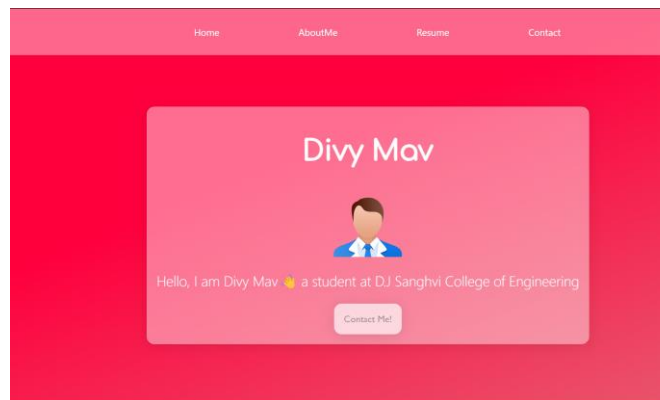
```css
.nav-list{
    display: flex;
    justify-content: center;
    align-items: center;
    text-decoration: none;
    list-style-type: none;
}
.nav-container{
    width: 100%;
    margin:0;
    padding: 0;
    background-color: rgba(255, 255, 255, 0.4);
    position: fixed;
    top: 0;
    z-index: 1;
}
.nav-list li{
    margin: 10px 5%;
    padding: 10px;
    cursor: pointer;
}
.nav-list li:hover {
    background: rgba(255, 255, 255, 0.43);
    border-radius: 16px;
    box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
    backdrop-filter: blur(10.4px);
    -webkit-backdrop-filter: blur(10.4px);
}
.nav-list li a{
    color: white;
    text-decoration: none;
    font-size: 20px;
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}
.cont-data{
    font-size: 30px;
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
    font-weight: 300;
    text-align: center;
}
.heading{
    display: flex;
    justify-content: center;
    align-items: center;
    flex-direction: column;
    margin: 200px 0;
    background: rgba(255, 255, 255, 0.43);
    border-radius: 16px;
    box-shadow: 0 4px 30px rgba(0, 0, 0, 0.1);
```

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Theory:

1) Explain different tags used to include Inline/Embedded /External Style Sheets in HTML.

Inline Styles:

Inline styles are applied directly to individual HTML elements using the <style> attribute. The <style> attribute contains CSS declarations for the specific element.

Example:

<p style="color: blue; font-size: 16px;">

This is a paragraph with inline styles. </p>

Embedded Styles:

Embedded styles are defined within the HTML document, typically within the <head> section, using the <style> tag. The <style> tag includes the CSS rules for styling the document.

Example:

```
<!DOCTYPE html>
<html>
<head>
   <style>
     p {
        color: red;
        font-size: 18px;
     }
   </style>
</head>
<body>
   <p>This is a paragraph with embedded styles.</p>
</body>
</html>
```

External Styles:

External styles are stored in separate CSS files and linked to the HTML document using the <link> tag. The <link> tag is placed within the <head> section of the HTML document. The href attribute in the <link> tag specifies the path to the external CSS file.

Example:

```
<!DOCTYPE html>
<html>
<head>
    <link rel="stylesheet" type="text/css" href="styles.css">
</head>
<body>
    <p>This is a paragraph with external styles.</p>
</body>
</html>
```

In the external styles example, the styles.css file would contain the CSS rules, such as:

```
/* styles.css */
p {
    color: green;
    font-size: 20px;
}
```

2) Explain Cascading Order.

The term "cascading" in Cascading Style Sheets (CSS) refers to the order of priority or precedence that the browser follows when applying styles to an HTML document. The cascading order is defined by the CSS specification and consists of different levels, each with its own weight. The order of importance, from highest to lowest, is often remembered using the acronym "CASCADING." Inline styles have the highest priority and will override any styles declared elsewhere. Next are internal styles, which follow inline styles. External stylesheets come last and will be overridden by inline and internal styles.

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3) Types of CSS Selectors.

CSS (Cascading Style Sheets) selectors are patterns used to select and style HTML elements. There are various types of CSS selectors, each with its own specificity and use cases. Here are some common types of CSS selectors:

a) Universal Selector (*)
Selects all elements on the page.
Example: * { margin: 0; padding: 0; }

b) Type or Element Selector
Selects all instances of a specified HTML element.
Example: p { color: blue; }

c) Class Selector (.)
Selects elements with a specific class attribute.
Example: .highlight { background-color: yellow; }

d) ID Selector (#)
Selects a single element with a specific ID attribute.
Example: #header { font-size: 24px; }

e) Descendant Selector (space)
Selects all descendants of a specified element, regardless of their depth in the document tree.
Example: article p { font-style: italic; }

f) Child Selector (>)
Selects direct children of a specified element.
Example: ul > li { list-style-type: square; }

g) Adjacent Sibling Selector (+)
Selects an element that is immediately preceded by a specified sibling element.
Example: h2 + p { font-weight: bold; }

Conclusion: Thus we successfully learnt and implemented Inline, External and Embedded CSS in HTML.