

MODULE:2(CSS and CSS 3)

- What are the benefits of using CSS?**

Answer: The benefits of using CSS are as follows:

1. Easier to maintain and update.
2. Greater consistency in design.
3. More formatting options.
4. Lightweight code.
5. Faster download times.
6. Search engine optimization benefits.
7. Ease of presenting different styles to different viewers.
8. Greater accessibility.

- What are the disadvantages of CSS?**

Answer: The disadvantages of CSS are as follows:

1. Confusion due to many CSS versions.
2. Cross-browser issues.
3. Limited security.
4. Extra work for developers.

- What is the difference between CSS2 and CSS3?**

Answer:

Sr.No.	CSS2	CSS3
1.	Many features of CSS2 are not supported by all browsers.	CSS3 provides backward compatibility and better support across different browsers.

	compatible with CSS3.	compatibility with CSS2.
2.	Media queries are not supported in CSS2.	CSS3 supports Media queries for responsive designs.
3.	Not all the browsers can support the CSS2 code.	All the modern browsers support CSS3.
4.	CSS2 code can not be split into various modules.	CSS3 code can be split into various modules.
5.	CSS2 supports standard old color(RGB system) only.	CSS3 supports RGBA,HSL and gradient colors.
6.	In CSS2 animation is possible via JQuery and JavaScript.	In CSS3, animation is supported by translation,scaling,rotation and transformation.

- **Name a few CSS style components.**

Answer: The CSS style components are as follows:

1. Selector: Class name, id name or element name that is targeted.
2. Attribute: Name of the attribute you want to style, for example: border, color, background, position, etc.
3. Value of Property: Value that will be assigned to attribute.

For example: p{

```

        color:red;
        position: relative;
        text-align:left;
    }
```

In the above example, p is selector, following style rules will be applied to all paragraphs. Color is attribute and value is red,

position is another attribute with value relative, text-align is last attribute with value left.

The screenshot shows a code editor interface with a dark theme. On the left is the Explorer sidebar containing a tree view of files and folders. In the center is the code editor window displaying the file `components.html`. The code is as follows:

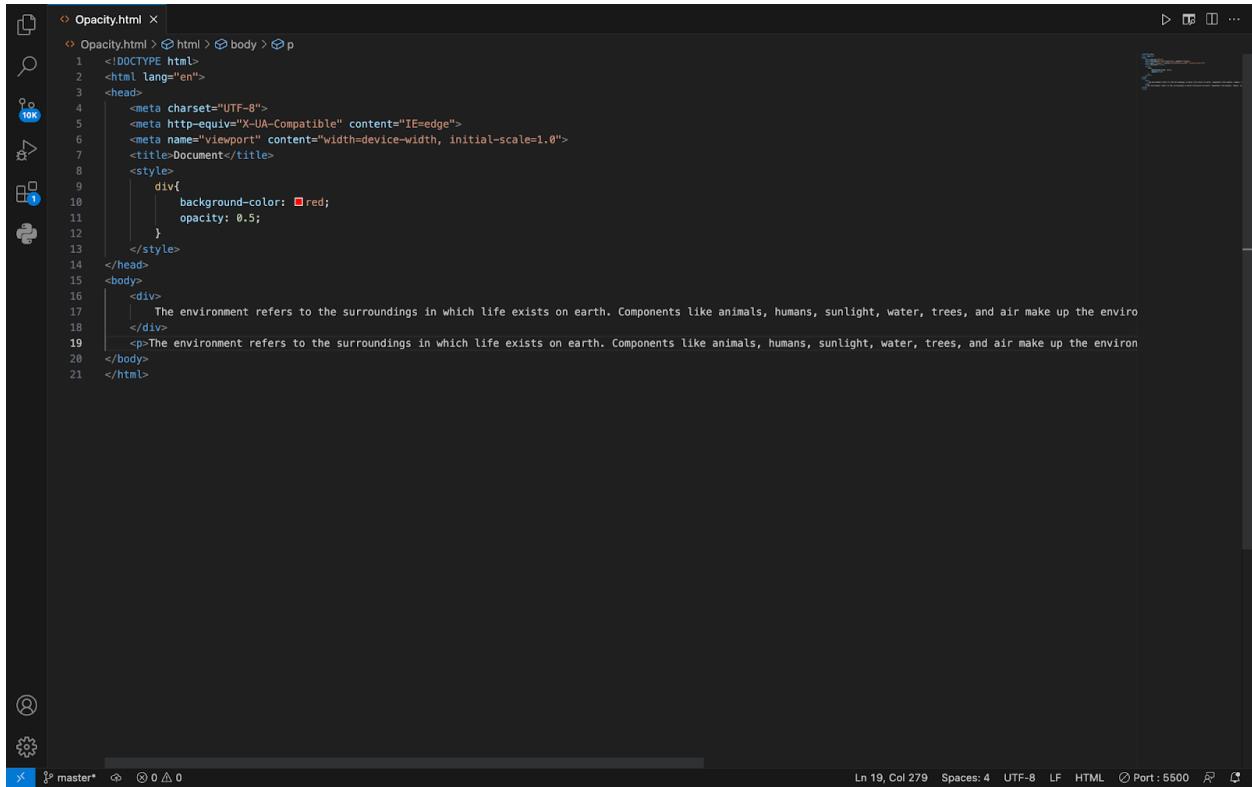
```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
      p{
        color: red;
        position: relative;
        text-align: left;
      }
    </style>
  </head>
  <body>
    <p>The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment. They are the earth's living and non-living components.  
Living organisms include trees, humans, and animals.</p>
  </body>
</html>
```

At the bottom of the code editor, status bar text includes "Ln 12, Col 28 Spaces: 4 UTF-8 LF HTML Port: 5500". Below the code editor is a browser window showing the rendered HTML. The browser tab bar shows "127.0.0.1:5500/components.html". The browser content area displays the text from the `p` tag, with the first sentence in red and the second sentence in black.

- What do you understand about CSS opacity?

Answer: The opacity CSS property sets the opacity of an element. Opacity is the degree to which content behind an element is hidden, and is the opposite of transparency. The CSS opacity property sets the opacity for the whole element. The opacity property value must be a number between 0.0 and 1.0.

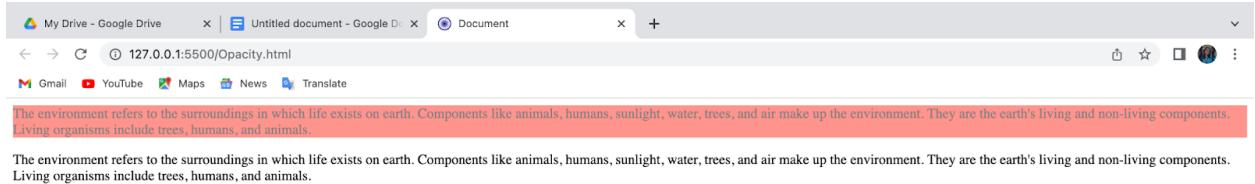
For example:



The screenshot shows a code editor interface with a dark theme. The file being edited is 'Opacity.html'. The code is as follows:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
      div{
        background-color: red;
        opacity: 0.5;
      }
    </style>
  </head>
  <body>
    <div>
      The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment.
    </div>
    <p>The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment.</p>
  </body>
</html>
```

The code defines a single `div` element with a red background color and an opacity of 0.5. This means the text inside the `div` will be partially visible through the red background. The text within the `div` is repeated to demonstrate the effect.



- **How can the background color of an element be changed?**

Answer: The background color of an element can be changed using the CSS background-color property. First set the color of your choice you want to put inside the style attribute then add this style where you want in div,table,span,etc.

For example:

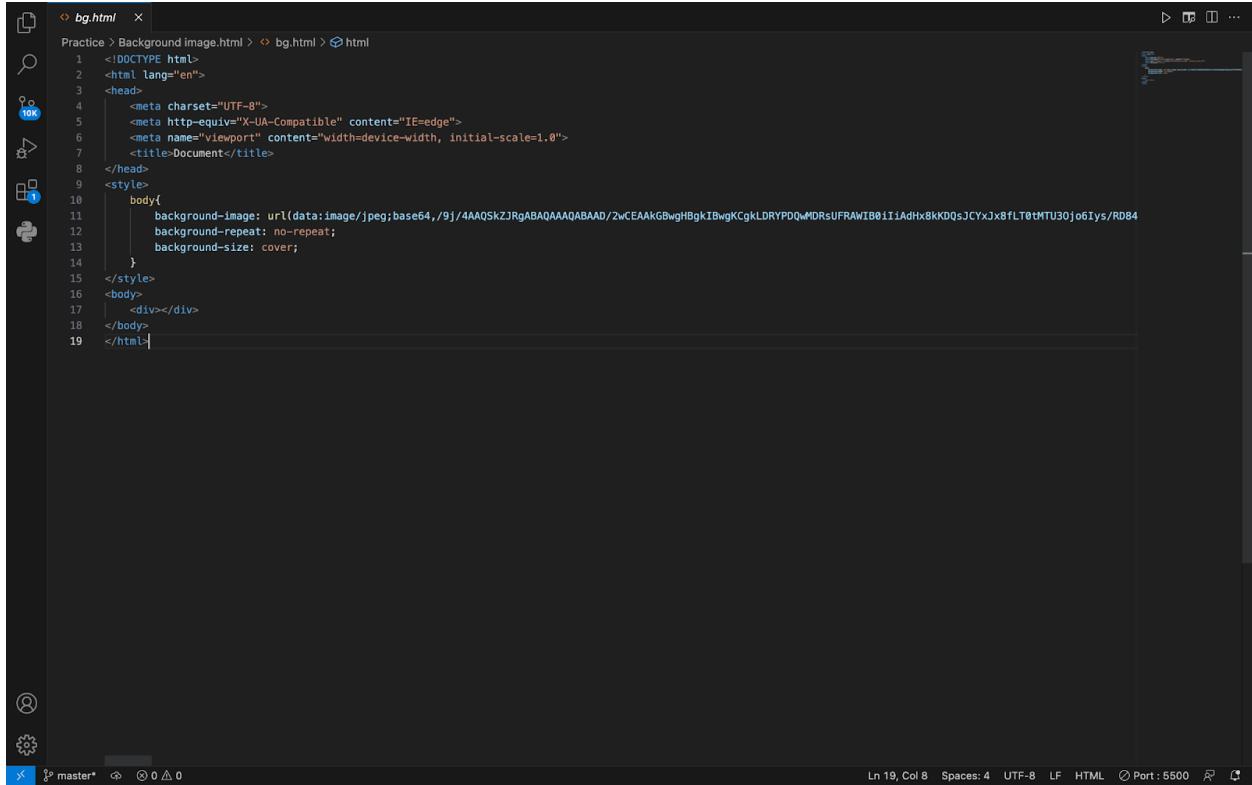
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
        div{
            background-color: red;
        }
    </style>
</head>
<body>
    <div>
        The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment. They are the earth's living and non-living components. Living organisms include trees, humans, and animals.
    </div>
    <p>The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment. They are the earth's living and non-living components. Living organisms include trees, humans, and animals.</p>
</body>
</html>
```

The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment. They are the earth's living and non-living components. Living organisms include trees, humans, and animals.

- How can image repetition of the backup be controlled?

Answer: To control the repetition of an image in the background, use the background-repeat property.

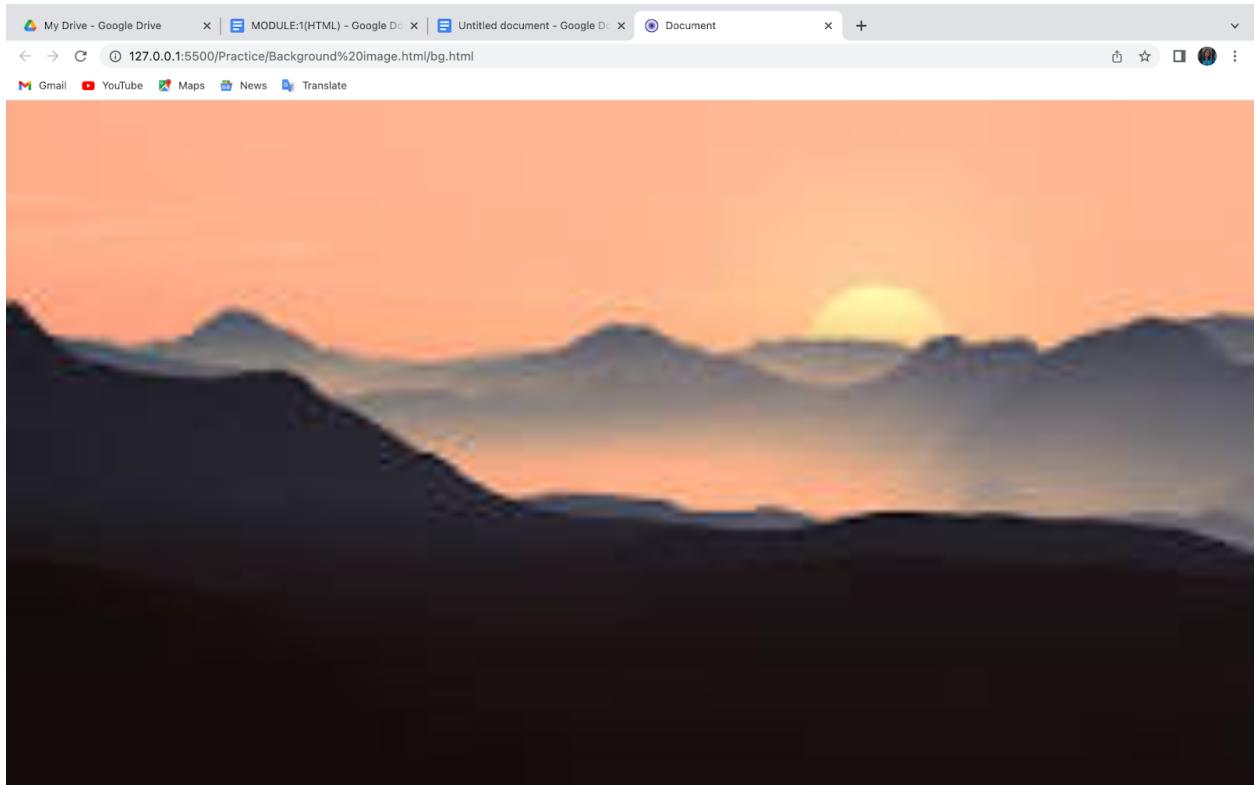
For example:



The screenshot shows a code editor window with the file 'bg.html' open. The code defines a CSS rule for the body element that sets a background image from a data URI and specifies 'no-repeat' for the background-repeat property. The code editor interface includes a sidebar with icons for file operations, a status bar at the bottom, and a top navigation bar.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<style>
    body{
        background-image: url(data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAAQABAAAD/2wCEAAkGBwgHBgkIBwgKCgkLDRYPDQwMDRsUFRAWIB0iliAdHx8KDQsJCYxJx8fLT0tMTU3Oj06Iys/RD84
        background-repeat: no-repeat;
        background-size: cover;
    }
</style>
<body>
    <div></div>
</body>
</html>
```

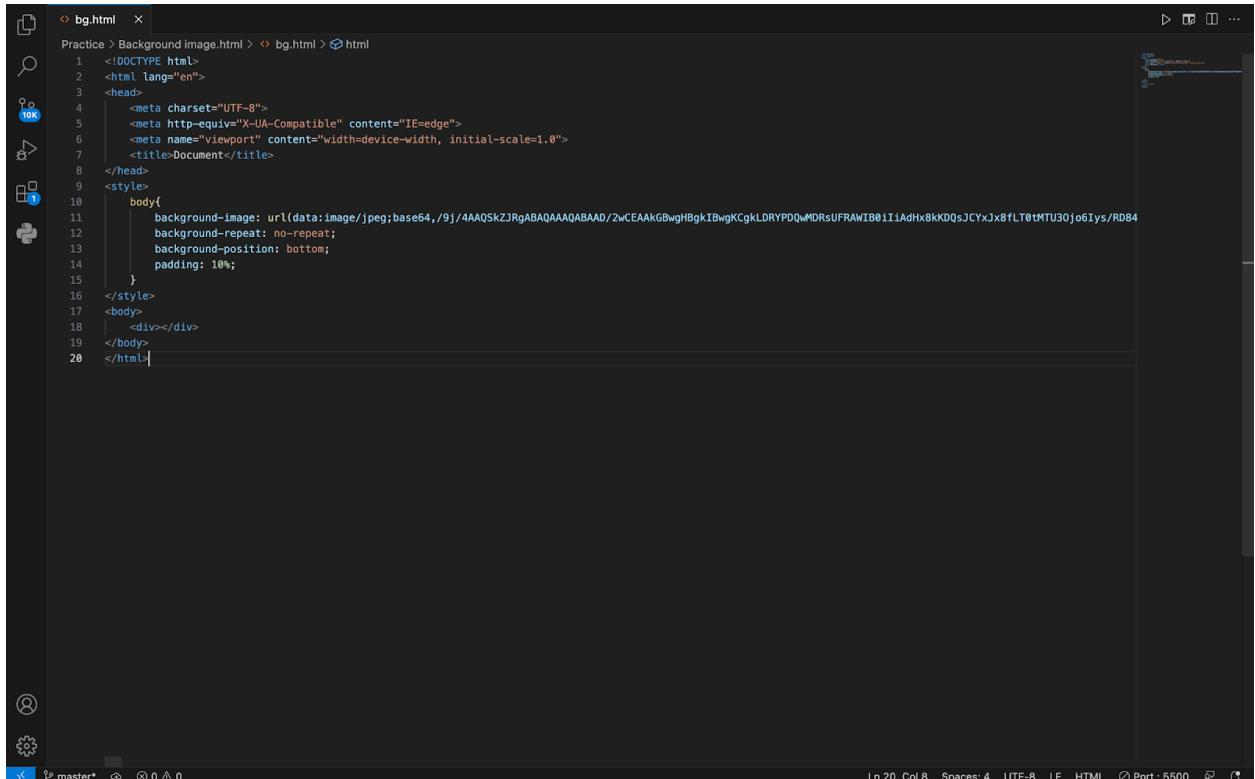
Ln 19, Col 8 Spaces: 4 UTF-8 LF HTML Port: 5500



- **What is the use of the background-position property?**

Answer: The use of the background-position property is to set the position of a background image.

For example:



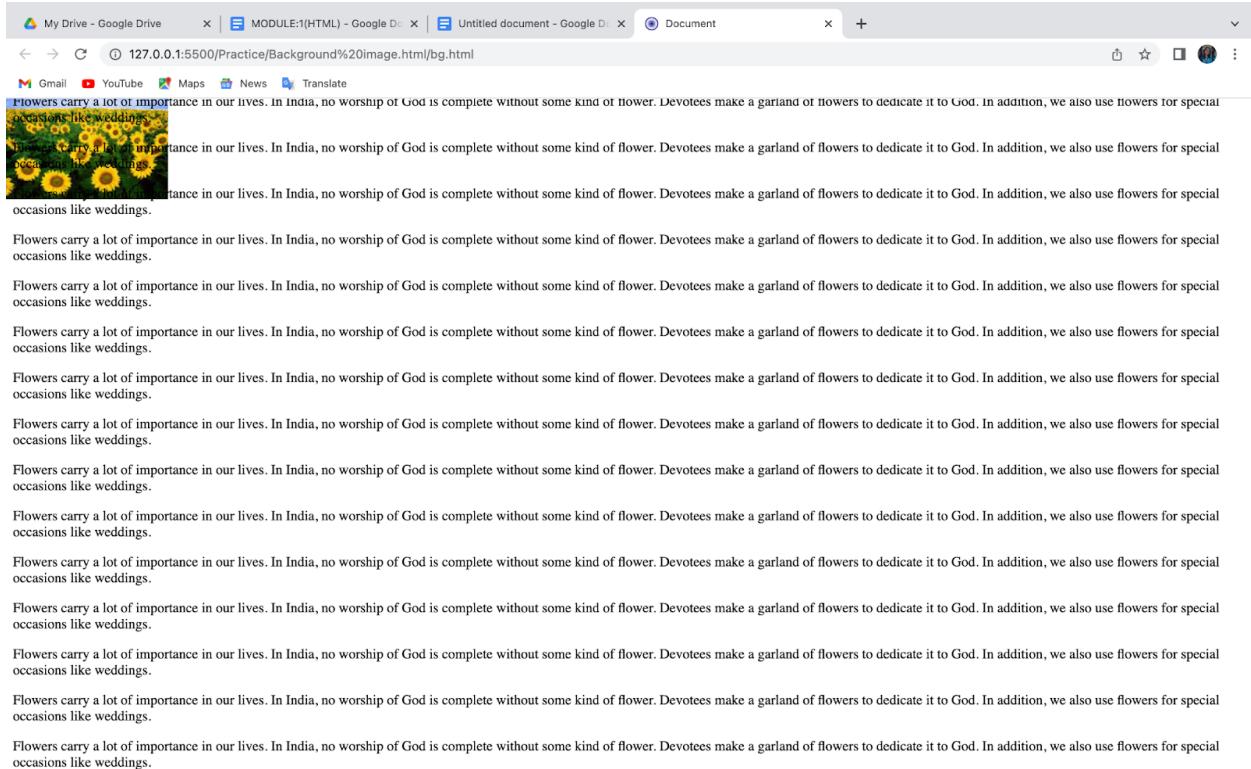
```
bg.html  x | Practice > Background image.html > bg.html > html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta http-equiv="X-UA-Compatible" content="IE=edge">
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <title>Document</title>
8  </head>
9  <style>
10     body{
11         background-image: url(data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAAQABAAAD/2wCEAAkGBwgHBgkIBwgKCgkLDRYPDQwMDRsUFRAWIB0lIiAldHx8kKDQsJCYxJx8fLT0tMTU3Ojo6Iys/RD84
12         background-repeat: no-repeat;
13         background-position: bottom;
14         padding: 10%;
15     }
16 </style>
17 <body>
18     <div></div>
19 </body>
20 </html>
```

Ln 20, Col 8 Spaces: 4 UTF-8 LF HTML ⚙ Port: 5500 ⌂ ⌂



- Which property controls the image scroll in the background?

Answer: The background-attachment property sets whether a background image scrolls with the rest of the page, or is fixed.
For example:



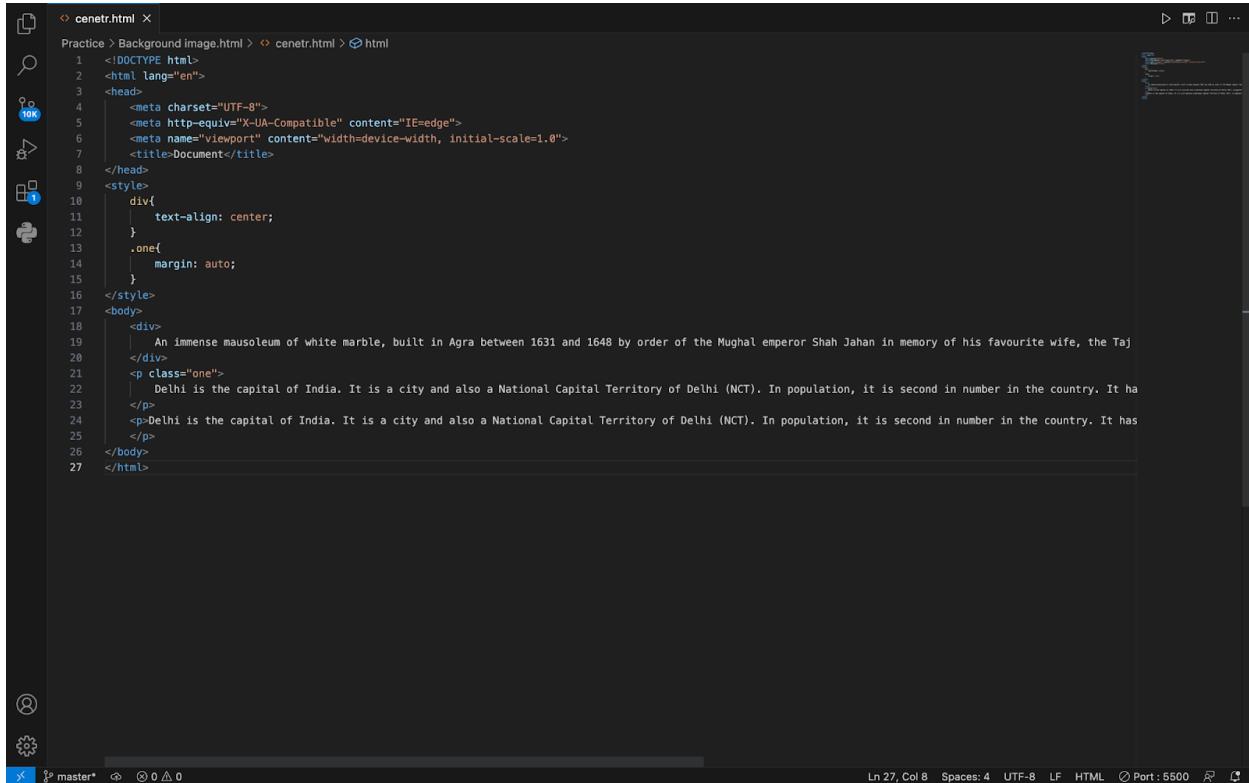
- Why should background and color be used as separate properties?

Answer: We should use background and color as separate properties because it provides more flexibility and control over the visual presentation of elements. It enables you to specify different colors for text and background independently. The background property is a complex property in CSS, and if it is combined with color, the complexity will further increase. Color is an inherited property while the background is not. Color properties is used to change the color of the text while background properties are for the background purpose of any element.

- How to center block elements using CSS1?

Answer: To center the block elements using CSS1 we use margin property and set the value auto to center the block elements.

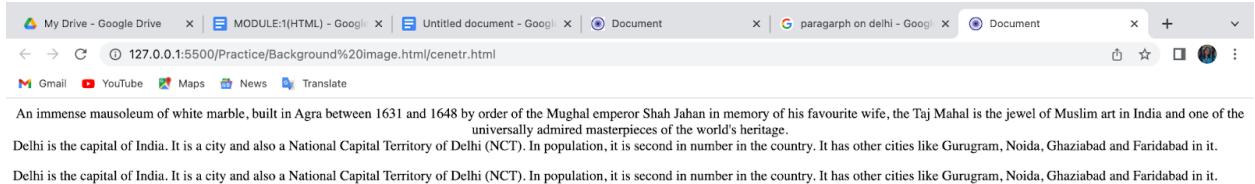
For example:



The screenshot shows a code editor interface with a dark theme. The file being edited is 'cenetr.html'. The code is as follows:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<style>
    div{
        text-align: center;
    }
    .one{
        margin: auto;
    }
</style>
<body>
    <div>
        An immense mausoleum of white marble, built in Agra between 1631 and 1648 by order of the Mughal emperor Shah Jahan in memory of his favourite wife, the Taj
    </div>
    <p class="one">
        Delhi is the capital of India. It is a city and also a National Capital Territory of Delhi (NCT). In population, it is second in number in the country. It ha
    </p>
    <p>Delhi is the capital of India. It is a city and also a National Capital Territory of Delhi (NCT). In population, it is second in number in the country. It has
    </p>
</body>
</html>
```

The status bar at the bottom indicates: Line 27, Column 8, Spaces: 4, UTF-8, LF, HTML, Port: 5500.



- **How to maintain the CSS specifications?**

Answer: The CSS specifications are maintained by the World Wide Web Consortium (W3C). Even though every browser supports CSS, there are many inconsistencies in the supported specification version. Some browsers even have their own implementation of the specification and have proprietary prefixes. Therefore, it's necessary to maintain the CSS specifications.

- **What are the ways to integrate CSS as a web page?**

Answer: There are three ways to integrate CSS as a web page are as follows:

1. Inline CSS
2. Internal CSS

3. External CSS.

For example:

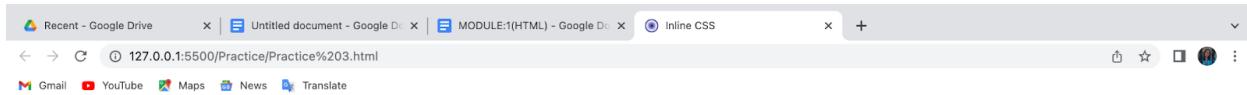
The image shows a code editor interface with two tabs open: "Practice 3.html" and "# style.css".

Practice 3.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Inline CSS</title>
</head>
<body>
    <h1 style="color: blue">A Blue Heading</h1>
    <p style="color: red">A red paragraph.</p>
</body>
</html>
```

style.css:

```
h1{ color: blue; }
p{ color: red; }
```



- **What are embedded style sheets?**

Answer: Embedded style sheets allow you to define style for a particular HTML document as a whole in one place. This is done by embedding the `<style></style>` tag containing the CSS properties in the head of your document. Embedded style sheets are particularly useful for HTML documents that have unique style requirements from the rest of the document in your project. However, if the styles need to be applied across multiple documents, you should link to an external style sheet instead of using individual embedded style sheets.

For example:

The screenshot shows a code editor interface with the following details:

- Title Bar:** Practice > Practice 3.html
- Code Area:**

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Document</title>
8   <!-- Embedded Style Sheet -->
9   <style>
10    h1{
11      color: blue;
12    }
13    p{
14      color: brown;
15    }
16  </style>
17 </head>
18 <body>
19   <h1>This is a heading</h1>
20   <p>This is a paragraph.</p>
21 </body>
22 </html>
```
- Status Bar:** Ln 14, Col 24 Spaces: 4 UTF-8 LF HTML Port: 5500
- Bottom Navigation:** My Drive - Google Drive | Untitled document - Google D... | Document | +
- Address Bar:** 127.0.0.1:5500/Practice/Practice%203.html
- Toolbar:** Back, Forward, Stop, Refresh, Home, Bookmarks, Settings, etc.

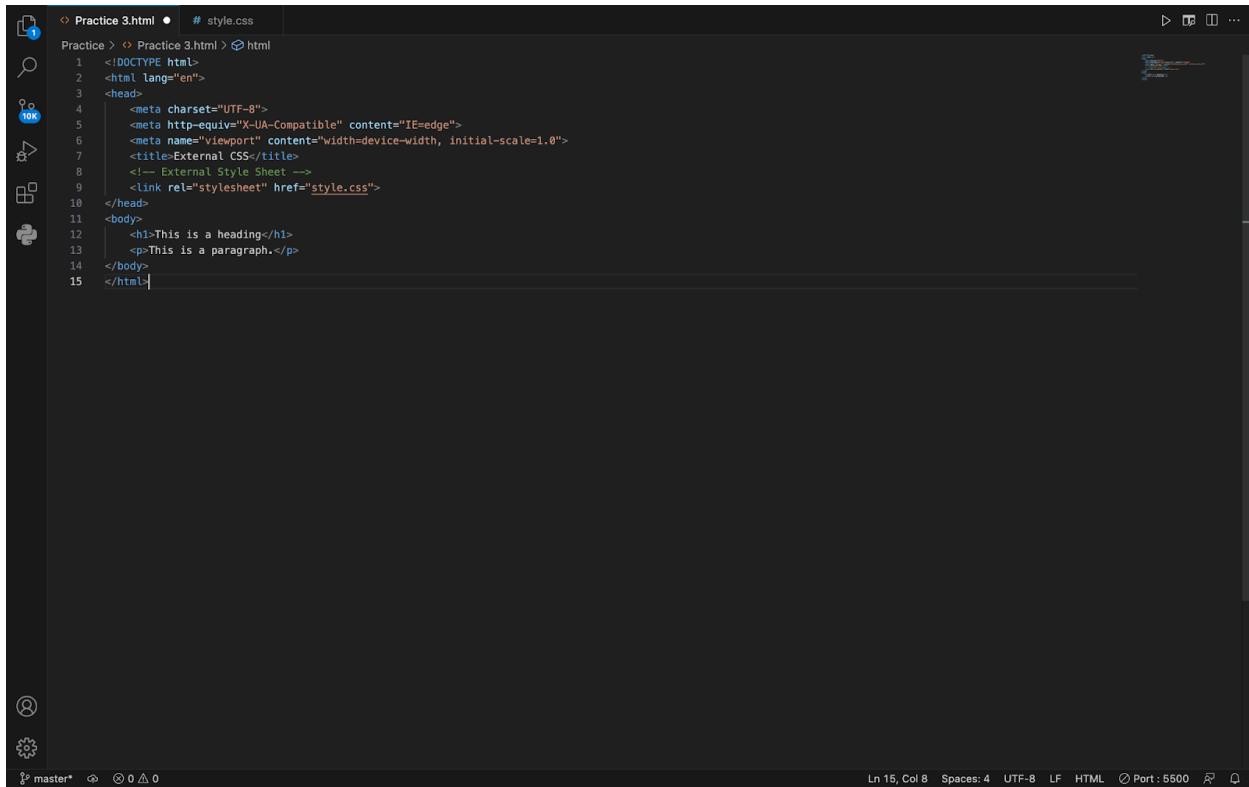
This is a heading

This is a paragraph.

- What is the external style sheets?

Answer: An external style sheet is a separate CSS file that can be accessed by creating a link within the head section of the webpage. Multiple webpages can use the same link to access the stylesheet. The link to an external style sheet is placed within the head section of the page.

For example:



The screenshot shows a code editor interface with two tabs: "Practice 3.html" and "# style.css". The "Practice 3.html" tab is active, displaying the following HTML code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>External CSS</title>
    <!-- External Style Sheet -->
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <h1>This is a heading</h1>
    <p>This is a paragraph.</p>
</body>
</html>
```

The "# style.css" tab is visible but contains no code. The bottom status bar indicates the file is in master*, with 0 changes, and shows statistics: Ln 15, Col 8, Spaces: 4, UTF-8, LF, HTML, Port: 5500.

The screenshot shows a code editor interface with a dark theme. On the left is a vertical toolbar with icons for file operations, search, and other tools. The main area displays a CSS file named 'style.css' with the following content:

```
Practice > # style.css > ↵ p
1  h1{ color:blue;
2  }
3
4  p{
5    color:red;
6 }
```

Below the editor is a status bar showing 'Ln 5, Col 14' and other settings like 'Spaces: 4', 'UTF-8', 'LF', 'CSS', 'Port: 5500'. At the bottom, there's a browser-like navigation bar with tabs for 'Recent - Google Drive', 'Untitled document - Google D...', 'MODULE:1(HTML) - Google D...', and 'External CSS'. The address bar shows the URL '127.0.0.1:5500/Practice/Practice%203.html'. Below the navigation bar are links for 'Gmail', 'YouTube', 'Maps', 'News', and 'Translate'.

This is a heading

This is a paragraph.

- **What are the advantages and disadvantages of using external style sheets?**

Answer: The advantages and disadvantages of using external style sheets are as follows:

Advantages:

1. With the help of External Style Sheets, the styles of numerous documents can be organized from one single file.
2. In External Style Sheets, classes can be made for use on numerous HTML element types in many forms of the site.
3. In complex contents, methods like selector and grouping can be implemented to apply styles.

Disadvantages:

1. An extra download is essential to import style information for each file.
2. The execution of the file may be deferred till the external style sheet is loaded.
3. While implementing style sheets, we need to test web pages with multiple browsers in order to check compatibility issues.

- **What is the meaning of the CSS selector?**

Answer: A CSS selector is the first part of a CSS rule. It is a pattern of elements and other terms that tell the browser which HTML elements should be selected to have the CSS property value inside the rule applied to them.

There are also some types of CSS selectors are as follows:

1. Simpler Selector
2. Class Selector
3. Id Selector

4. Universal Selector
5. Attribute Selector

- **What are the media types allowed by CSS?**

Answer: The media types allowed by CSS are as follows:

1. all
2. print
3. screen
4. speech

The media types are:

1. For mobile: 320px to 480px
2. For tablets, i-pad: 481px to 768px
3. For small screen, laptops: 769px to 1024px
4. For desktop, large screen: 1025px to 1200px
5. For extra large screen, TV: 1201px to more

For example:

```
@media (min-width:320px) and (max-width:480px) { }
```

- **What is the rule set?**

Answer: The styles are defined in separate files. This file is called a CSS file. The collection of rules in a CSS file is called ruleset.

- **Create Layouts:**

Answer:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
        * {
            padding: 0;
            margin: 0;
            box-sizing: border-box;
        }
        /* Main container start */
        .container {
            box-sizing: border-box;
            height: 500px;
            width: 100%;
            background-color: #rgb(216, 213, 213);
            padding: 20px;
        }
        /* Main container end */

        /* Box start */
        .first {
            box-sizing: border-box;
            height: 200px;
            width: 100%;
            display: flex;
            justify-content: space-between;
        }
        .one {
            box-sizing: border-box;
            height: inherit;
            width: 33%;
            background-color: #black;
        }
        .second {
            box-sizing: border-box;
            height: 200px;
            width: 100%;
            margin-top: 25px;
            display: flex;
            justify-content: space-between;
        }
        .two {
            box-sizing: border-box;
            height: inherit;
            width: 33%;
            background-color: #black;
        }
        /* Box end */

        /* Upper portion start */
        .small {
            box-sizing: border-box;
            height: 55px;
            width: 100%;
            background-color: #rgb(100, 98, 102);
            color: #white;
            font-weight: bolder;
            font-size: large;
            padding-top: 40px;
            text-align: center;
        }
        /* Upper portion end */

        /* Below portion start */
        .big {
            box-sizing: border-box;
            height: 50px;
            width: 100%;
            background-color: #white;
            font-size: 15px;
            word-spacing: 5px;
            letter-spacing: 1px;
            text-align: center;
        }
        p {
            padding-top: 10px;
            padding-right: 180px;
        }
    </style>

```

Ln 57, Col 23 Spaces: 4 UTF-8 LF HTML ⚙ Port: 5500

```

        .second {
            box-sizing: border-box;
            height: 200px;
            width: 100%;
            margin-top: 25px;
            display: flex;
            justify-content: space-between;
        }
        .two {
            box-sizing: border-box;
            height: inherit;
            width: 33%;
            background-color: #black;
        }
        /* Box end */

        /* Upper portion start */
        .small {
            box-sizing: border-box;
            height: 55px;
            width: 100%;
            background-color: #rgb(100, 98, 102);
            color: #white;
            font-weight: bolder;
            font-size: large;
            padding-top: 40px;
            text-align: center;
        }
        /* Upper portion end */

        /* Below portion start */
        .big {
            box-sizing: border-box;
            height: 50px;
            width: 100%;
            background-color: #white;
            font-size: 15px;
            word-spacing: 5px;
            letter-spacing: 1px;
            text-align: center;
        }
        p {
            padding-top: 10px;
            padding-right: 180px;
        }
    </style>

```

Ln 81, Col 34 Spaces: 4 UTF-8 LF HTML ⚙ Port: 5500

Layout.html

```
Practice > Layout.html > html > body > div.container > div.second > div.two > div.big

78     }
79     p {
80         padding-top: 10px;
81         padding-right: 180px;
82     }
83     button {
84         font-size: 16px;
85         padding: 2px 10px;
86     }
87     /* Below portion end */
88 
```

</head>

</body>

```
<!-- Box start -->
<div class="container">
    <div class="first">
        <div class="one">
            <div class="small">Thumbnail</div>
            <div class="big">This is a wider card with supporting text
                <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
                <p><button>View</button><button>Edit</button></p>
            </div>
        </div>
        <div class="one">
            <div class="small">Thumbnail</div>
            <div class="big">This is a wider card with supporting text
                <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
                <p><button>View</button><button>Edit</button></p>
            </div>
        </div>
        <div class="one">
            <div class="small">Thumbnail</div>
            <div class="big">This is a wider card with supporting text
                <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
                <p><button>View</button><button>Edit</button></p>
            </div>
        </div>
    </div>
    <div class="second">
        <div class="two">
            <div class="small">Thumbnail</div>
            <div class="big">This is a wider card with supporting text
                <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
                <p><button>View</button><button>Edit</button></p>
            </div>
        </div>
        <div class="two">
            <div class="small">Thumbnail</div>
            <div class="big">This is a wider card with supporting text
                <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
                <p><button>View</button><button>Edit</button></p>
            </div>
        </div>
        <div class="two">
            <div class="small">Thumbnail</div>
            <div class="big">This is a wider card with supporting text
                <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
                <p><button>View</button><button>Edit</button></p>
            </div>
        </div>
    </div>
</div>
```

Ln 120, Col 75 Spaces: 4 UTF-8 LF HTML ⚙ Port: 5500

Layout.html

```
Practice > Layout.html > html

113     <p><button>View</button><button>Edit</button></p>
114     </div>
115 </div>
116 <div class="second">
117     <div class="two">
118         <div class="small">Thumbnail</div>
119         <div class="big">This is a wider card with supporting text
120             <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
121             <p><button>View</button><button>Edit</button></p>
122         </div>
123     </div>
124     <div class="two">
125         <div class="small">Thumbnail</div>
126         <div class="big">This is a wider card with supporting text
127             <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
128             <p><button>View</button><button>Edit</button></p>
129         </div>
130     </div>
131     <div class="two">
132         <div class="small">Thumbnail</div>
133         <div class="big">This is a wider card with supporting text
134             <br>below as a natural lead in to additional <br>content. This content is a little bit longer.
135             <p><button>View</button><button>Edit</button></p>
136         </div>
137     </div>
138 </div>
139 </div>
140 <!-- Box end -->
141 
```

</body>

</html>

Ln 144, Col 8 Spaces: 4 UTF-8 LF HTML ⚙ Port: 5500

