Module 4) CSS and CSS3

Question: What are the benefits of using CSS?
Answer: CSS is used to give styling to the HTML elements.

Code:
```
h1{
    color: red;
}
```

Output:

Write, edit and run HTML, CSS and JavaScript code online.

Question: What are the disadvantages of CSS?
Answer: Using multiple css files can take long time to load the web page.
Old browsers may not support CSS3.

Question: What is the difference between css2 and css3
Answer: We can breakdown the code in modules in css3 but not in css2.
Creating responsive design is not possible in css2 but in css3.

Question: Name a few css style components?
Answer: The few css style components are:
```
h1{
    color: red;
    background-color: blue;
    margin: 10px;
    padding: 10px;
}
```

Output:

Question: What do you understand by opacity?

Answer: The opacity property is used to define the transparency of an element.

```css
h1{
    opacity: 0.5;
}
```

Output:

Write, edit and run HTML, CSS and JavaScript code online.

Question: How can the background color of an element be changed?

Answer: We can change the background color of an element by using the property background-color

```css
h1{
    background-color: purple;
}
```

Output:

Write, edit and run HTML, CSS and JavaScript code online.

Question: How can image repetition of the backup be controlled?
Answer: We can stop image repetition of the background image with css property
background-repeat: no-repeat;

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="style.css">
    <title>Document</title>
    <style>
    .repeating{
        height: 500px;
        background-image:
url('https://images.ctfassets.net/hrltx12pl8hq/5ZjPpfAhn1rZWeopnHiXb/3e1b9
a709297905672a0d24eac94a873/thumb_nov22_03.jpg');
    }

    .not-repeating{
        height: 500px;
        background-repeat: no-repeat;
        background-image:
url('https://images.ctfassets.net/hrltx12pl8hq/5ZjPpfAhn1rZWeopnHiXb/3e1b9
a709297905672a0d24eac94a873/thumb_nov22_03.jpg');
    }
    </style>
</head>
<body>
<h1>Image repeating</h1>
<br>
<div class="repeating"></div><br>
```

```
<h1>Image not repeating repeating</h1>
<br>
<div class="not-repeating"></div>


</body>
</html>
```

Output:

Image repeating

Image not repeating repeating

Question: What is the use of the background-position property?
Answer: background-position property is used to put the position in the four directions such as top, left, right, bottom.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="style.css">
    <title>Document</title>
    <style>
        .top{
```

```
            height: 300px;
            background-image:
url(https://images.ctfassets.net/hrltx12pl8hq/5ZjPpfAhn1rZWeopnHiXb/3e1b9a
709297905672a0d24eac94a873/thumb_nov22_03.jpg);
            background-repeat: no-repeat;
            background-position: top;
        }

        .left{
            height: 300px;
            background-image:
url(https://images.ctfassets.net/hrltx12pl8hq/5ZjPpfAhn1rZWeopnHiXb/3e1b9a
709297905672a0d24eac94a873/thumb_nov22_03.jpg);
            background-repeat: no-repeat;
            background-position: left;
        }

        .right{
            height: 300px;
            background-image:
url(https://images.ctfassets.net/hrltx12pl8hq/5ZjPpfAhn1rZWeopnHiXb/3e1b9a
709297905672a0d24eac94a873/thumb_nov22_03.jpg);
            background-repeat: no-repeat;
            background-position: right;
        }

    </style>
</head>
<body>

<div class="top"></div>
<div class="right"></div>
<div class="left"></div>




</body>
</html>
```
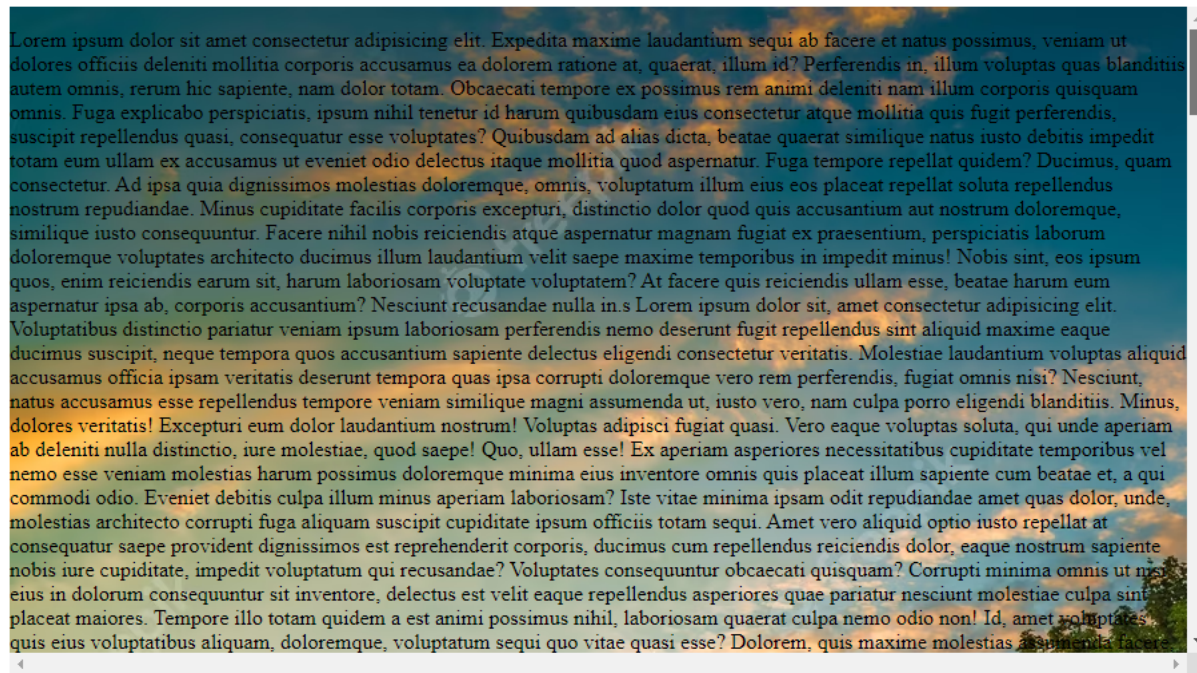
Question: Which property controls the image scroll in the background?

Answer: The css property overflow:auto; controls the image scroll in the background.

```css
.main{
    height: 500px;
    color: black;
    background-image:
url('https://img.freepik.com/free-photo/wide-angle-shot-single-tree-growin
g-clouded-sky-during-sunset-surrounded-by-grass_181624-22807.jpg?w=2000');
    overflow: auto;
    width: 800px;
    background-repeat: no-repeat;
}
```

Output:

Lorem ipsum dolor sit amet consectetur adipisicing elit. Expedita maxime laudantium sequi ab facere et natus possimus, veniam ut dolores officiis deleniti mollitia corporis accusamus ea dolorem ratione at, quaerat, illum id? Perferendis in, illum voluptas quas blanditiis autem omnis, rerum hic sapiente, nam dolor totam. Obcaecati tempore ex possimus rem animi deleniti nam illum corporis quisquam omnis. Fuga explicabo perspiciatis, ipsum nihil tenetur id harum quibusdam eius consectetur atque mollitia quis fugit perferendis, suscipit repellendus quasi, consequatur esse voluptates? Quibusdam ad alias dicta, beatae quaerat similique natus iusto debitis impedit totam eum ullam ex accusamus ut eveniet odio delectus itaque mollitia quod aspernatur. Fuga tempore repellat quidem? Ducimus, quam consectetur. Ad ipsa quia dignissimos molestias doloremque, omnis, voluptatum illum eius eos placeat repellat soluta repellendus nostrum repudiandae. Minus cupiditate facilis corporis excepturi, distinctio dolor quod quis accusantium aut nostrum doloremque, similique iusto consequuntur. Facere nihil nobis reiciendis atque aspernatur magnam fugiat ex praesentium, perspiciatis laborum doloremque voluptates architecto ducimus illum laudantium velit saepe maxime temporibus in impedit minus! Nobis sint, eos ipsum quos, enim reiciendis earum sit, harum laboriosam voluptate voluptatem? At facere quis reiciendis ullam esse, beatae harum eum aspernatur ipsa ab, corporis accusantium? Nesciunt recusandae nulla in.s Lorem ipsum dolor sit, amet consectetur adipisicing elit. Voluptatibus distinctio pariatur veniam ipsum laboriosam perferendis nemo deserunt fugit repellendus sint aliquid maxime eaque ducimus suscipit, neque tempora quos accusantium sapiente delectus eligendi consectetur veritatis. Molestiae laudantium voluptas aliquid accusamus officia ipsam veritatis deserunt tempora quas ipsa corrupti doloremque vero rem perferendis, fugiat omnis nisi? Nesciunt, natus accusamus esse repellendus tempore veniam similique magni assumenda ut, iusto vero, nam culpa porro eligendi blanditiis. Minus, dolores veritatis! Excepturi eum dolor laudantium nostrum! Voluptas adipisci fugiat quasi. Vero eaque voluptas soluta, qui unde aperiam ab deleniti nulla distinctio, iure molestiae, quod saepe! Quo, ullam esse! Ex aperiam asperiores necessitatibus cupiditate temporibus vel nemo esse veniam molestias harum possimus doloremque minima eius inventore omnis quis placeat illum sapiente cum beatae et, a qui commodi odio. Eveniet debitis culpa illum minus aperiam laboriosam? Iste vitae minima ipsam odit repudiandae amet quas dolor, unde, molestias architecto corrupti fuga aliquam suscipit cupiditate ipsum officiis totam sequi. Amet vero aliquid optio iusto repellat at consequatur saepe provident dignissimos est reprehenderit corporis, ducimus cum repellendus reiciendis dolor, eaque nostrum sapiente nobis iure cupiditate, impedit voluptatum qui recusandae? Voluptates consequuntur obcaecati quisquam? Corrupti minima omnis ut nisi eius in dolorum consequuntur sit inventore, delectus est velit eaque repellendus asperiores quae pariatur nesciunt molestiae culpa sint placeat maiores. Tempore illo totam quidem a est animi possimus nihil, laboriosam quaerat culpa nemo odio non! Id, amet voluptates quis eius voluptatibus aliquam, doloremque, voluptatum sequi quo vitae quasi esse? Dolorem, quis maxime molestias assumenda facere

Question: Why should background and color be used as separate properties?

Answer: We use background-color property to change the color of the background, while color property is only used to change the color of the font.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Demo</title>
    <style>
        h1{
            background-color: red;
            color: white;
        }
    </style>
</head>
<body>

<h1>Hello, World!</h1>
</body>
</html>
```

Output:

Hello, World!

Question: How to center block elements using CSS1?

Answer: We can center the div using following css1 code.

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

<head>
    <style>
        *{
            margin:0px;
            padding:0px;
            box-sizing: border-box;
```

```html
        }

        body {
            background: brown;
        }

        #box {
            background: black;
            color:white;
            text-align: center;
        }

        /* For centering the element */
        #box {
            height: 100%;
            width:300px;
            margin:25% auto;
        }
    </style>
</head>

<body>
    <div id="box">
        <h3>this is a box</h3>
    </div>
</body>

</html>
```
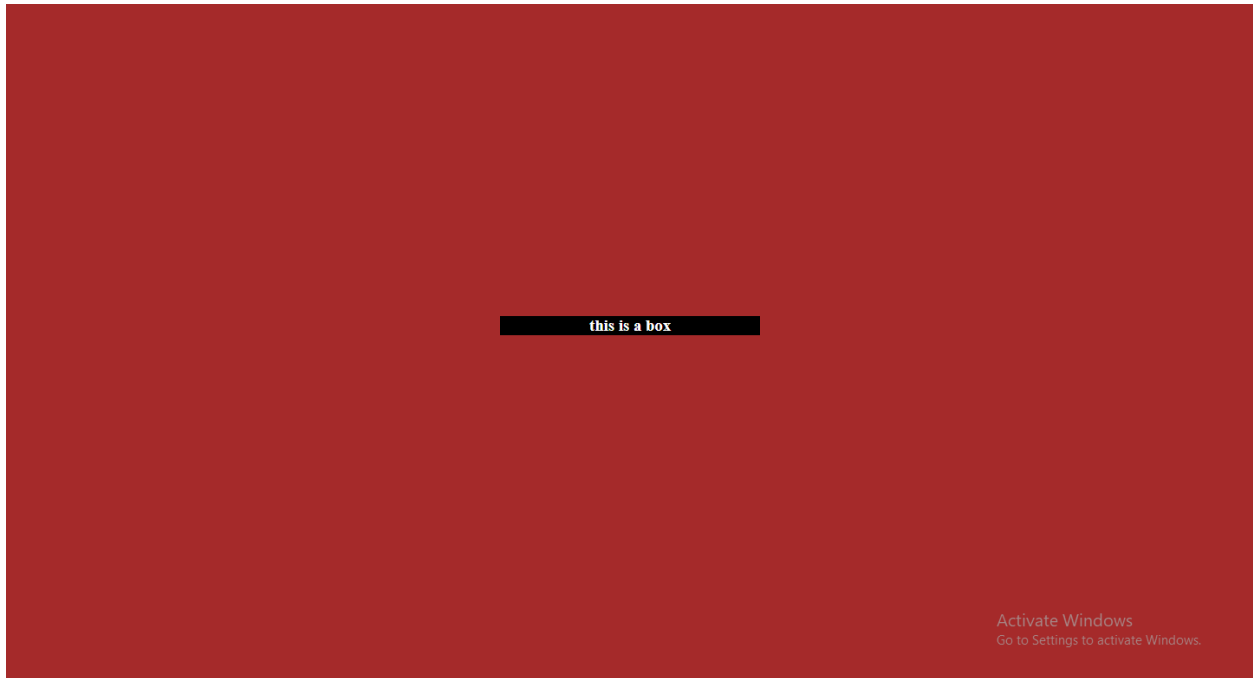
Output:

this is a box

Question: How to maintain the CSS specifications?

Answer:

If the css code is larger than 400 lines then the html could should use external css file.

Question: What are the ways to integrate CSS as a web page?

Answer: There are three ways to integrate css in the web page.

1) Inline css- <h1 style="color:red">Hello, World!</h1>
2) Internal CSS - <style>h1{color: red};</style>
3) External CSS - <link rel="stylesheet" href="style.css">

Question: What is embedded style sheets?

Answer: Embedded style sheets means css code inside the style tag in the same html document.

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Demo</title>
    <style>
        h1{
            background-color: red;
            color: white;
        }
    </style>
```

```
</head>
<body>

<h1>Hello, World!</h1>
</body>
</html>
```

Output:

Hello, World!

Question: What are the external style sheets?

Answer: External style sheets means to load css from different files.

```
<link rel="stylesheet" href="style.css">
```

```
h1{
    background-color: red;
    color: white;
}
```

Output:

Hello, World!

Question: What are the advantages and disadvantages of using external style sheets?

Answer:

Advantage:
1) It makes the code cleaner.
2) Easy to read

Disadvantage:
1) It can increase the network load.
2) CSS on the page will not be applied until the css is loaded correctly.

```
<link rel="stylesheet" href="style.css">
```

```css
h1{
    background-color: red;
    color: white;
}
```

Output:

> **Hello, World!**

Question: What is the meaning of the CSS selector?

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

```css
h1{
    background-color: red;
    color: white;
}
```

Output:

> **Hello, World!**

Question: What are the media types allowed by CSS?

Answer: All type of medias are allowed such as mp3, mp4, png, jpeg, gif, etc…

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Demo</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <h1>Audio</h1><br>
<audio src="file_example_MP3_700KB.mp3" controls></audio>

<h1>Video</h1><br>
<video src="video.mp4" controls></video>
```

```html
<h1>PNG</h1><br>
<img src="test.png">

<h1>JPG</h1><br>
<img src="testpng.jpg"

</body>
</html>
```
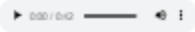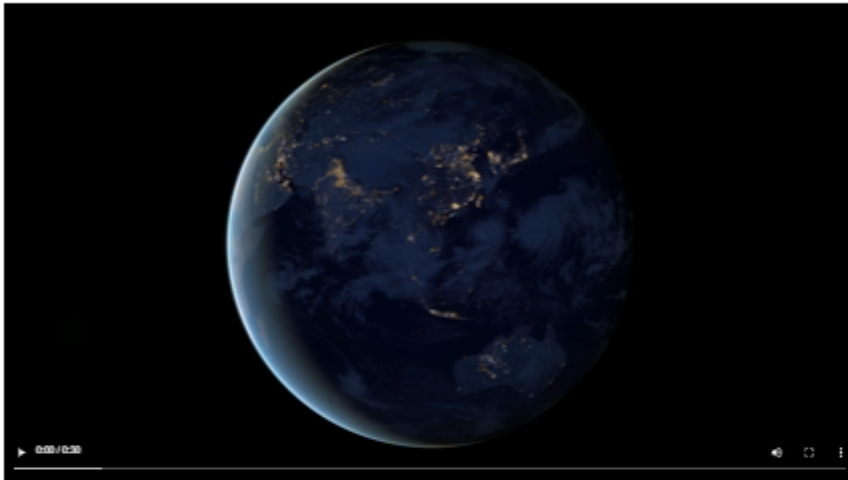
Output:

Audio

Video

PNG

JPG

Question: What is the rule set?

Answer: A CSS rule set contains one or more selectors and one or more declarations

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
```

```html
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Demo</title>
    <style>
        h1 {
            color: blue;
            text-align: center;
        }</style>

</head>
<body>


    <h1>Hello, World!</h1>
</body>
</html>
```

Output:

Hello, World!