**MODULE: 2 (CSS)**

1. **What are the benefits of using CSS?**

**Ans :**

1. **Separation of presentation and content: CSS allows web designers to separate the presentation of a web page from its content. This makes it easier to make changes to the design of a website without affecting its underlying content.**
2. **Consistency: CSS makes it easy to apply consistent styles to multiple pages of a website, making it easier to maintain and update.**
3. **Efficiency: By using CSS, web designers can apply styles to multiple elements at once, rather than having to style each element individually. This can save time and make the code more efficient.**
4. **Flexibility: With CSS, it's possible to create complex layouts and designs that would be difficult or impossible to achieve with HTML alone. CSS also makes it easy to create responsive designs that adapt to different screen sizes and devices.**
5. **Accessibility: By using CSS to style a website, web designers can create sites that are more accessible to people with disabilities. For example, CSS can be used to create high-contrast designs that are easier to read for people with visual impairments.**
6. **What are the disadvantages of CSS?**

**Ans :**

**1. Browser compatibility issues - Different browsers may interpret CSS code differently, which can lead to inconsistent layouts and design inconsistencies.**

**2. Complexity - CSS can be complex and difficult to learn for beginners**

**3. Limited Layout Control - CSS is primarily designed for styling and layout, but it has limited control over layout.**

**4. Accessibility challenges - CSS can be a challenge for people with disabilities. For example, some CSS techniques can cause issues with screen readers or keyboard navigation.**

1. **What is the difference between CSS2 and CSS3?**

**Ans :**

1. **Selectors: CSS3 includes a wider range of selectors than CSS2. For example, CSS3 includes selectors for specific child elements, adjacent siblings, and more.**
2. **Text Effects: CSS3 includes a range of new text effects, such as text shadows, text wrapping, and text gradients.**
3. **Box model: CSS3 includes new box-sizing property, which allows for greater control over the sizing of elements and how they interact with their parent and sibling elements.**
4. **Layout: CSS3 includes several new layout modules, such as Flexbox and Grid, which provide more powerful layout options than those available in CSS2.**
5. **Media queries: CSS3 introduces new media queries that allow for more precise targeting of specific devices or screen sizes, making it easier to create responsive designs.**
6. **Animations and transitions: CSS3 introduces new animation and transition properties, making it easier to create smooth and visually appealing animations and transitions.**
7. **Name a few CSS style components**

**Ans :**

1. **Color**
2. **Padding and margin**
3. **Background color**
4. **Animation**
5. **Border**
6. **Fonts**
7. **Text**
8. **Layout and position**
9. **What do you understand by CSS opacity?**

**Ans :**

**The CSS opacity property accepts values from 0 to 1, where 0 represents completely transparent or invisible, and 1 represents completely opaque or solid. For example, setting an element's opacity to 0.5 would make it semi-transparent, allowing some of its background to show through.**

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

**Ans :**

**The background color of an element can be changed in CSS using the background-color property. The value of this property can be specified in a number of different ways, including color keywords, hexadecimal RGB values, RGB or HSL color values, or the rgba() or hsla() functions.**

**Example…**

**background-color: red;**

**background-color: #00ff00;**

**background-color: rgb(255, 255, 0);**

**background-color: rgba(0, 0, 255, 0.5);**

**background-color: hsl(120, 100%, 50%);**

**background-color: hsla(240, 100%, 50%, 0.5);**

1. **How can image repetition of the backup be controlled?**

**Ans :**

1. **repeat (default): The background image is repeated both horizontally and vertically to cover the background area. If the image size is smaller than the element, it will be repeated to fill the entire background.**
2. **repeat-x: The background image is repeated only horizontally, creating a pattern that extends horizontally across the background.**
3. **repeat-y: The background image is repeated only vertically, creating a pattern that extends vertically across the background.**
4. **no-repeat: The background image is displayed only once, without any repetition.**
5. **What is the use of the background-position property?**

**Ans :**

**The background-position property in CSS is used to specify the starting position of a background image within its container element. It determines where the upper left corner of the background image should be placed relative to the element's content box.**

**The background-position property can take different values, such as keywords like top, bottom, left, and right, or pixel or percentage values. When using pixel or percentage values, the first value specifies the horizontal position, and the second value specifies the vertical position.**

**/\* Set the background position to the top left corner \*/**

**background-position: 0 0;**

**/\* Set the background position to the center of the element \*/**

**background-position: center;**

**/\* Set the background position to the bottom right corner \*/**

**background-position: right bottom;**

**/\* Set the background position to 50% from the left and 25% from the top \*/**

**background-position: 50% 25%;**

1. **Which property controls the image scroll in the background?**

**Ans :**

1. **The background-attachment property in CSS controls whether a background image is fixed or scrolls along with the content of the element.**
2. **The background-attachment property can take the following values:**
3. **scroll (default): The background image scrolls along with the content of the element.**
4. **fixed: The background image is fixed in place and does not scroll with the content of the element.**
5. **local: The background image scrolls with the content of the element, but it is fixed relative to the element's padding box instead of its border box.**
6. **initial: Sets the property to its default value.**
7. **inherit: Inherits the property from its parent element.**
8. **Why should background and color be used as separate properties?**

**Ans :**

**There are two reasons behind this: It enhances the legibility of style sheets. The background property is a complex property in CSS, and if it is combined with color, the complexity will further increase.**

1. **How to center block elements using CSS1?**

**Ans :**

To centrally align the block elements, we can simply make use of the <center> tag. All the elements within the <center> tag will be centrally aligned.

1. **How to maintain the CSS specifications?**

**Ans :**

1. **Continuously update and improve the specifications: CSS specifications should be updated regularly to keep up with new features, changes in web technologies, and user needs. The CSS Working Group, which is responsible for developing and maintaining the CSS specifications, regularly releases new drafts and updates to the specifications to address issues and add new features.**
2. **Conduct thorough testing: Before releasing new features or updates to the CSS specifications, it's important to thoroughly test them to ensure that they are compatible with existing web technologies and don't introduce new issues or bugs.**
3. **What are the ways to integrate CSS as a web page?**

**Ans :**

**CSS may be added to HTML in three different ways. To style a single HTML element on the page, use Inline CSS in a style attribute. By adding CSS to the head section of our HTML document, we can embed an internal stylesheet. We can also connect to an external stylesheet that separates our CSS from our HTML**

1. **What is embedded style sheets?**

**Ans :**

**An embedded style sheet is declared within the <head> element of an XHTML document. It applies to the whole document, rather than just one element. Each style declaration (or CSS rule) gets applied to everything in the document that matches that rule.**

1. **What are the external style sheets?**

**Ans :**

**An external style sheet is a separate file where you can declare all the styles that you want to use on your website. You then link to the external style sheet from all your HTML pages. This means you only need to set the styles for each element once.**

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

**Ans:**

**Advantages:**

1. **Easy maintenance: By storing all CSS styles in a separate file, it becomes easier to manage and maintain the styles. Changes can be made to a single file and those changes are automatically reflected in all web pages that use that style sheet, making it less time-consuming and more efficient.**
2. **Consistency: External style sheets can help ensure consistency of style across multiple web pages within a website, improving the overall design and user experience.**

**Disadvantages:**

1. **Additional HTTP request: Loading an external style sheet requires an additional HTTP request, which can increase page load time, especially if the file is large or the website has many CSS files.**
2. **Not suitable for small projects: For small projects or web pages, external style sheets might be unnecessary overhead.**
3. **What is the meaning of the CSS selector?**

**Ans :**

**In CSS, a selector is a pattern or rule that is used to select specific HTML elements in a web page and apply styles to them. A CSS selector targets one or more elements on the basis of their tag name, class, ID, attributes, or other characteristics.**

1. **What are the media types allowed by CSS?**

**Ans :**

1. **all: This is the default media type and applies to all devices.**
2. **screen: This media type is used for computer screens, tablets, smart-phones, and other devices with a screen.**
3. **print: This media type is used for printers and print-preview windows.**
4. **speech: This media type is used for speech synthesizers and other similar devices.**

1. **What is the rule set?**

**Ans :**

**In CSS, a rule set is a group of one or more CSS declarations that define how an HTML element should be styled. A rule set consists of a selector and one or more declarations enclosed in curly braces.**

1. **Create Layouts**

**Ans :**

**Below the link-**

**https://github.com/vsgore1996/layout**

**MODULE: 3 (HTML 5)**

1. **What are the new tags added in HTML5?**

**Ans :**

1. **<header>**
2. **<nav>**
3. **<section>**
4. **<article>**
5. **<aside>**
6. **<footer>**
7. **<audio>**
8. **<video>**
9. **<canvas>**

**10.<datalist>**

1. **How to embed audio and video in a webpage?**

**Ans :**

**\*example of how to embed an audio file:**

**<audio controls>**

**<source src="example.mp3" type="audio/mpeg">**

**Your browser does not support the audio element.**

**</audio>**

**\* example of how to embed a video file:**

**<video controls>**

**<source src="example.mp4" type="video/mp4">**

**Your browser does not support the video element.**

**</video>**

1. **Semantic element in HTML5?**

**Ans :**

|  |
| --- |
| **<article>** |
| **<aside>** |
| **<details>** |
| **<figcaption>** |
| **<figure>** |
| **<footer>** |
| **<header>** |
| **<main>** |
| **<mark>** |
| **<nav>** |
| **<section>** |
| **<summary>** |
| **<time>** |

1. **Canvas and SVG tags?**

**Ans :**

|  |  |
| --- | --- |
| **SVG** | **HTML Canvas** |
| SVG has better scalability. So it can be printed with high quality at any resolution | Canvas has poor scalability. Hence it is not suitable for printing on higher resolution |
| SVG gives better performance with smaller number of objects or larger surface. | Canvas gives better performance with smaller surface or larger number of objects. |
| SVG can be modified through script and CSS | Canvas can be modified through script only |
| SVG is vector based and composed of shapes. | Canvas is raster based and composed of pixel. |