**Module-4**

**CSS and CSS 3**

**• What are the benefits of using CSS?**

**🡪** CSS plays an important role, by using CSS you simply got to specify a repeated style for element once & use it multipletimes as because CSS will automatically apply the required styles.

The main advantages of CSS is style is applied consistently across variety of sites. One instruction can control several areas which is advantageous.

It is less complex therefore the effort are significantly reduced.

Easy for the user to customize the online page

It reduces the file transfer size.

CSS changes are devices friendly. With people employing

**• What are the disadvantages of CSS?**

CSS, CSS 1 up to CSS3, result in creating of confusion among   web browsers.

* With CSS, what works with one browser might not always work with another. The web developers need to test for compatibility, running the program across multiple browsers.
* There exists a scarcity of security.
* After making the changes we need to confirm the compatibility if they appear. The similar change affects on all the browsers.
* The programming language world is complicated for non-developers and beginners. Different levels of CSS i.e. CSS, CSS 2, CSS 3 are often quite confusing.
* Browser compatibility (some styles sheet are supported and some are not).
* CSS works differently on different browsers. IE and Opera supports CSS as different logic.
* There might be cross-browser issues while using CSS.
* There are multiple levels which creates confusion for non-developers and beginners.

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

**🡪**

|  |  |  |
| --- | --- | --- |
| S.No. | CSS | CSS3 |
| 1 | CSS is capable of positioning texts and objects. | On the other hand, CSS3 is capable of making the web page more attractive and takes less time to create. CSS3 is backward compatible with CSS. |
| 2 | Responsive designing is not supported in CSS | CSS3 is the latest version, hence it supports responsive design. |
| 3 | CSS cannot be split into modules. | Whereas CSS3 can be breakdown into modules. |
| 4 | CSS is very slow as compared to CSS3 | Whereas CSS3 is faster than CSS. |
| 5 | In CSS we can only use single text blocks. | But in CSS3 we can use multi-column text blocks |
| 6 | CSS does not support media queries. | But CSS3 supports media queries |
| 8 | CSS codes are not supported by all types of modern browsers. | Being the latest version, CSS3 codes are supported by all modern browsers. |

**• Name a few CSS style components**

**🡪** A CSS rule consists of two main parts: selector ('h1') and declaration ('color: red'). In HTML, element names are case-insensitive so 'h1' works just as well as 'H1'. The declaration has two parts: property name ('color') and property value ('red').

**• What do you understand by CSS opacity?**

**🡪** Opacity. The CSS opacity property sets the opacity for the whole element (both background color and text will be opaque/transparent). The opacity property value must be a number between 0.0 (fully transparent) and 1.0 (fully opaque).

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

**🡪**To add background color in HTML, use the CSS background-color property. Set it to the color name or code you want and place it inside a style attribute. Then add this style attribute to an HTML element, like a table, heading, div, or span tag

**• How can image repetition of the backup be controlled?**

**🡪** In this article, we will see how an image repetition of the backup is controlled in CSS. This task can be achieved by using the *background-repeat property* that will help us to control the repetition of the image.

The **background-repeat property** in CSS is used to repeat the background image both horizontally and vertically. It also decides whether the background image will be repeated or not.

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

**🡪**The **background-position** property in CSS is mainly used to sets the initial position for the background image ie., it is used to set an image at a certain position. The position that is relative to the positioning layer, can be set by using the [background-origin](https://www.geeksforgeeks.org/css-background-origin-property/) property.

**Syntax:**

background-position: value;

**• Which property controls the image scroll in the background?**

In this article, we will discuss the property that is used to control the scrolling of an image in the background. The [***background-attachment***](https://www.geeksforgeeks.org/css-background-attachment-property/) property in CSS is used to specify the kind of attachment of the background image with respect to its container. It can be set to scroll or make it remain fixed. It can be applied to all[HTML](https://www.geeksforgeeks.org/html/)elements.

**Syntax:**

background-attachment: scroll|fixed|local|initial|inherit;

**• Why should background and color be used as separate properties?**

**🡪**

The separation of the background and color properties in CSS allows for greater flexibility and specificity when styling elements. By having separate properties, developers can easily target and modify the background and text color independently. This separation also allows for more efficient use of CSS, as it enables the inheritance and overriding of specific styles for different elements.

**• How to center block elements using CSS1?**

**🡪** Block elements are those that are displayed at the start of a new line. A block element takes up the entire width of the content it is part of. Unlike inline, these elements have a top and bottom margin. Only the body tag is permitted to contain components at the block level. In comparison to inline components, block-level elements produce a larger structure.

**Examples =** Block elements are <div>, <article>, <section>, <li>, <ul>, <form>, <p>, etc.,

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

**🡪** The [HTML Specification](https://dev.to/ziizium/the-html-specification-4epa) which is sort of a rule book that tells browser vendors how to implement HTML Elements and Tags. The CSS Specification is no different but with a different approach with the advent of CSS3.

The Specification defines how CSS properties should be implemented by browser vendors along with detailed algorithms, code samples and tabular information.

The Specification also include:

* The syntax and data types of the language
* Detailed explanation on CSS Selectors
* How you can assign values to properties
* The Cascade (the "C" in CSS)
* How inheritance works
* The Box Model etc.

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

**🡪** 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.

**• What is embedded style sheets?**

**🡪Embedded Stylesheet:**It allows you to define styles for a particular HTML document as a whole in one place. This is done by embedding the **<style></style>** tags 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 documents 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. Using embedded stylesheets holds a distinct advantage over inline styles which only allow you to address one HTML element at a time.

**Syntax:**The CSS syntax for embedded style sheets is exactly the same as other CSS code, apart from the fact that it is now wrapped within the <style></style> tags. The <style> tag takes the ‘type’ attribute that defines the type of style sheet being used (ie. text/CSS).

**• What are the external style sheets?**

**🡪**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.

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

**🡪**CSS selectors are used to "find" (or select) the HTML elements you want to style.

We can divide CSS selectors into five categories:

1.Simple selectors (select elements based on name, id, class)

2.[Combinator selectors](https://www.w3schools.com/css/css_combinators.asp) (select elements based on a specific relationship between them)

3.[Pseudo-class selectors](https://www.w3schools.com/css/css_pseudo_classes.asp) (select elements based on a certain state)

4.[Pseudo-elements selectors](https://www.w3schools.com/css/css_pseudo_elements.asp) (select and style a part of an element)

5.[Attribute selectors](https://www.w3schools.com/css/css_attribute_selectors.asp) (select elements based on an attribute or attribute value)

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

## 🡪 CSS Media Queries

The @meadia rule, introduced in CSS2, made it possible to define different style rules for different media types.

Media queries in CSS3 extended the CSS2 media types idea: Instead of looking for a type of device, they look at the capability of the device.

Media queries can be used to check many things, such as:

* width and height of the viewport
* orientation of the viewport (landscape or portrait)
* resolution

Using media queries are a popular technique for delivering a tailored style sheet to desktops, laptops, tablets, and mobile phones (such as iPhone and Android phones).

**• What is the rule set?**

**🡪** A rule set is a collection of one or many rules that are executed together as a single unit against a specific set of records (either from one source or a set of conjoined sources) and generate several levels of statistics.