**Assignment-2**

1. **What are the benefits of using CSS?**
2. **Separation of Concerns:**

* CSS allow a clear separation of content and presentation. This makes it easier to manage and maintain code, as changes to one do not necessarily imapact the other.

1. **Reusability:**

* Styles defined in css can be reused across multiple element or pages. This helps in reducing redundancy in the code and makes it more efficient.

1. **Easy Maintenance:**

* With css, you can make global changes to the styling of website by modifying a few lines of code in the stylesheet, rather than having to update each HTML file individually.

1. **Animation and Transitions:**

* CSS supports animations and transitions, enabling developers to create visually engaging and interactive elements without relying on javaScripts or other scripting languages.

1. **What are the disadvantages of CSS?**
2. **Different browsers:**

* CSS doesn’t always make websites look the same on every web browser. Each browser might show things a bit differently, causing problems

1. **Gets Complicated:**

* As websites get bigger. So does the CSS code. It can be hard to keep track of all the styles, especially when things start to get really detailed.

1. **Slows Down Websites:**

* If the CSS code is too big or not written well, it can make websites load slowly, which annoys people who visit the site.

1. **Takes Time to Learn:**

* Learning CSS can be tough, especially at first. There are lots of rules to remember, and it might take a while before you feel comfortable using it.

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

|  |  |
| --- | --- |
| **CSS2** | **CSS3** |
| **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.** |
| **Responsive designing is not supported in CSS** | **CSS3 is the latest version, hence it supports responsive design.** |
| **CSS is very slow as compared to CSS3** | **Whereas CSS3 is faster than CSS.** |

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

* **Colors:** Styles related to text color, background color, border color, and various color-related properties like opacity and RGBA values.
* **Layout:** Styles related to the arrangement of elements on a webpage, including properties like width, height, margins, padding, and positioning.
* **Box Model:** Styles related to the spacing and dimension of elements, including properties like border, padding, and margin.
* **Flexbox and Grid Layout:** Layout techniques that allow for more flexible and complex arrangements of elements within containers.
* **Backgrounds:** Styles related to background images, gradients, and other background properties.
* **Transitions and Animations:** Styles that define how elements should transition or animate between different states.
* **Responsive Design:** Styles that adjust the layout and appearance of elements based on the size of the viewport, typically implemented using media queries.

1. **What do you understand by CSS opacity?**

* The CSS opacity property is used to specify the transparency of an element. In simple word, It specifies the clarity of the image.
* <style>

    .one {

        opacity: 0.4;

    }

</style>

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

* **Using the “background-color” Property**: In your CSS file or within a **<style>** tag, you can specify the background color of an element by using the **background-color** property.
* <style>

    .p1{

        background-color: rgb(158, 97, 158);

    }

</style>

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

* 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.
* .main{

        height: 99vh;

        background-image: url(sun.avif);

        background-repeat: repeat;

    }

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

* The **background-position** property in CSS is mainly used to sets the Starting position for the background image. it is used to set an image at a certain position. It can be set by using the [**background-**](https://www.geeksforgeeks.org/css-background-origin-property/) **position** property.
* background-position: 10px;

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

* <style>

.one{

background: url(sun.avif) center /cover fixed;

height: 300px;

}

</style>

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

* 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.
* Background color: Like picking a paint color for the background of your webpage.
* Backgroud Image: Instead of paint, you can put a picture as your webpage’s background.
* background: url('image.jpg') no-repeat center center/cover #f0f0f0

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

* By setting the properties margin-left and margin-right to auto and width to some explicit value
* .p2{

        color: darkmagenta;

        width: 450px;

        margin-left: auto;

        margin-right: auto;

    }

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

* 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 .

1. **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.

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

* Embedded Stylesheet: It allows you to define styles for a particular HTML document as a whole in one place
* .p1{

        background-color: rgb(158, 97, 158);

    }

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

* To apply a rule to multiple pages, an external style sheet is used. 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.
* <link rel="stylesheet" href="style.css">

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

* **Advantage:**
* **Centralized Management:** External style sheets allow you to define styles in a single file that can be linked to multiple HTML pages. This centralization simplifies maintenance and ensures consistency across your website.
* **Consistency:** By defining styles in an external CSS file, you can ensure a consistent look and feel across all pages of your website. This consistency enhances user experience and brand identity
* **Ease Of Maintenance**: Making changes to styles is more straightforward with external style sheets. You can update styles in a single file, and those changes will automatically reflect across all pages linked to that CSS file.
* **Disadvantage:**
* **Dependency**: External style sheets create a dependency between HTML files and the CSS file. If the CSS file fails to load or is removed, the webpage's styling will be affected, potentially leading to a degraded user experience.
* **Render** **Blocking:** External style sheets can delay the rendering of the webpage content, particularly if the CSS file is large or slow to load. This render-blocking behavior can impact perceived page load times and user engagement.
* **HTTP Request:** Each external style sheet requires a separate HTTP request, which can increase page loading times, especially for websites with multiple CSS files

1. **What is the meaning of the CSS selector?**

* In CSS, selectors are used to target the HTML elements on our web pages that we want to style. There are a wide variety of CSS selectors available.
* Class Selectors : Selects elements based on their class attribute.  **class="example"**
* ID Selectors : Selects elements based on their ID attribute. **id="header"**

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

* CSS supports different media types, which allow styles to be applied based on the device or rendering the document. Here are the media types allowed by CSS:
* **All** : Applies to all devices and media types.
* **Print**: Applies to printers and print preview modes.
* **Screen :** Applies to computer screens, tablets, smart-phones, etc.
* **Speech :** Applies to screen readers that read the page out loud.

1. **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
* **EX**:
* .btn1{

    background-color: blue;

    color: aliceblue;

    border: none;

    width: 122px;

    height: 20px    ;

}