

Module (CSS and CSS 3) -2

1. What are the benefits of using CSS?

CSS (Cascading Style Sheets) makes websites look nice and consistent by controlling their layout and design. It allows for easier updates and faster loading times, while also making sites adaptable to different devices, like phones and tablets. Overall, **CSS simplifies web design and improves user experience.**

2. What are the disadvantages of CSS?

One disadvantage of CSS is that if not used correctly, it can lead to complex and messy code, making it hard to manage. Browser compatibility issues can also arise, as some styles might not work the same way across different browsers. Additionally, relying too much on CSS can make it challenging to maintain consistent design if styles aren't well-organized.

3. What is the difference between CSS2 and CSS3?

CSS2 and CSS3 are versions of the language used to style websites. CSS3 introduced many new features like animations, transitions, and flexible layouts, allowing for more modern and dynamic designs. It also supports new modules, making it easier to use specific features without affecting the whole stylesheet.

4. Name a few CSS style components

- **Selectors:** Used to target HTML elements.

```
p { color: blue; /* Selects all <p> elements and sets text color to blue */ }
```

- **Properties and Values:** Define how elements are styled.

```
h1 { font-size: 24px; /* Sets the font size of <h1> elements
*/ margin: 10px; /* Adds a margin around <h1> elements */ }
```

- **Classes and IDs:** Allow for specific styling.

```
.highlight { background-color: yellow; /* Styles elements with the class
"highlight" */ } #main-title { text-align: center; /* Styles the element with
the ID "main-title" */ }
```

- **Box Model:** Controls layout and spacing.

```
div { padding: 20px; /* Adds space inside the div */ border: 1px solid
black; /* Adds a border around the div */ margin: 15px; /* Adds space
outside the div */ }
```

- **Flexbox:** For flexible layouts.

```
.container { display: flex; /* Enables flexbox layout */ justify-content:
space-between; /* Distributes space between items */ }
```

- **Media Queries:** For responsive design.

```
@media (max-width: 600px) { body { background-color: lightblue; /*
Changes background color on smaller screens */ } }
```

5. What do you understand by CSS opacity?

CSS opacity controls how transparent or solid an element is. It ranges from 0 to 1, where 0 means fully transparent and 1 means fully opaque.

For example, an opacity of 0.5 makes an element half see-through, allowing background elements to show through.

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

You can change the background color of an element using the **background-color** property in CSS.

For example, to set a <div>'s background to red, you would write:

```
div { background-color: red; }
```

7. How can image repetition of the backup be controlled?

You can control image repetition in the background using the **background-repeat** property in CSS.

For example, setting **background-repeat: no-repeat;** prevents the image from repeating,

while **background-repeat: repeat-x;** makes it repeat only horizontally.

You can specify how the image should display according to your design needs.

8. What is the use of the background-position property?

The **background-position** property in CSS is used to set the starting position of a background image within an element. You can specify positions using keywords like top, centre, or bottom, or use exact values like pixels or percentages.

This helps you control where the image appears, making your design more precise.

9. Which property controls the image scroll in the background?

The **background-attachment** property controls how a background image scrolls with the rest of the page.

You can set it to scroll (default), which moves with the page, or fixed, which keeps the image in a fixed position as you scroll. This helps create different visual effects for the background.

10. Why should background and color be used as separate properties

Using **background** and **color** as separate properties allows for clearer design control.

For example, you can set the text color to blue with **color: blue;** and the background color to yellow with **background-color: yellow;**

This way, you can easily change one without affecting the other, making your code easier to manage and your designs more flexible.

11. How to centre block elements using CSS1?

To center block elements in CSS1, you can set the left and right margins to auto and define a specific width for the element.

For example

```
div { width: 50%; /* Set a width for the element */ margin: 0 auto; /* Center the element by using auto margins */ }
```

This will horizontally center the <div> within its parent container.

12. How to maintain the CSS specifications?

To maintain CSS specifications, you should follow a consistent naming convention and organize your styles into logical sections.

For example, use **BEM (Block Element Modifier)** naming like **button__primary** for buttons.

Also, keep your CSS files clean and well-commented, and group related styles together to make them easier to read and manage. This helps ensure your code remains clear and maintainable.

13. What are the ways to integrate CSS as a web page?

You can integrate CSS into a web page in three main ways:

- **Inline CSS:** Add styles directly in an HTML tag using the `style` attribute.

```
```html
<h1 style="color: blue;">Hello World</h1>
...

```

- **Internal CSS:** Place CSS rules within a `<style>` tag inside the `<head>` section of your HTML.

```
```html
<style>
  h1 { color: blue; }
</style>
...

```

- **External CSS:** Link to a separate CSS file using the `<link>` tag in the `<head>`.

```
```html
<link rel="stylesheet" href="styles.css">
...

```

Each method has its use cases, depending on your needs.

#### **14. What is embedded style sheets?**

Embedded style sheets are CSS rules written within a ``<style>`` tag in the ``<head>`` section of an HTML document. This allows you to apply styles to the entire page without using an external file.

For example:

```
```html
<head>

  <style>

    body { background-color: lightblue; }

    h1 { color: darkblue; }

  </style>

</head>
```
```

In this example, the background color of the page and the text color of all ``<h1>`` elements are defined within the HTML file itself.

#### **15. What are the external style sheets?**

External style sheets are separate CSS files linked to an HTML document, allowing you to apply the same styles across multiple pages. This helps keep your HTML clean and makes it easy to update styles in one place. For example, you would link an external CSS file like this:

```
```html
<link rel="stylesheet" href="styles.css">
```
```

In the ``styles.css`` file, you could define styles such as:

```
```css

body { background-color: lightgray; }

h1 { color: blue; }

```
```

This way, all pages using that CSS file will have the same design.

## 16. What are the advantages and disadvantages of using external style sheets?

- **Advantages of external style sheets** include easier maintenance, as you can update styles in one file for all linked pages, and faster page loading since the CSS file can be cached by browsers. For example, changing the background color in styles.css will update it on every page.
- **Disadvantages** include the need for an additional HTTP request to load the CSS file, which can slightly slow down the initial load time, and potential issues if the link to the stylesheet is broken or incorrect, causing styles to not apply.

## 17. What is the meaning of the CSS selector?

A CSS selector is a pattern used to target specific HTML elements for styling.

For example, the selector `p` targets all `<p>` (paragraph) elements, allowing you to apply styles like this:

```
```css

p {

    color: green; /* This changes the text color of all <p> elements to green */

}

```
```

Selectors can also be more specific, like `.class-name` for elements with a certain class or `#id-name` for a specific element with an ID.

## 18. What are the media types allowed by CSS?

CSS allows several media types to apply styles based on the device or screen conditions. The most common media types are:

- **screen:** For computer screens, tablets, and smartphones.

```
```css
@media screen { /* Styles for screens */ }
```
```

- **print:** For printed documents.

```
```css
@media print { /* Styles for printing */ }
```
```

- **speech:** For screen readers and speech synthesizers.

```
```css
@media speech { /* Styles for spoken output */ }
```
```

These media types help create responsive designs that adjust styles based on how the content is viewed.



## 19. What is the rule set?

A rule set in CSS is a collection of styles that define how to display a specific HTML element. It consists of a selector and a declaration block. For example:

```
``css

h2 {

 font-size: 24px; /* Property: font-size, Value: 24px */

 color: red; /* Property: color, Value: red */

}

...

```

In this example, `h2` is the selector, and the styles inside the curly braces are the declarations that apply to all `

## ` elements on the page.