

WEB DEV MODULE 03

Sure! Here's a detailed and exam-focused explanation of the listed CSS2 topics in **simple and easy-to-understand language**, with **complete sentences** and **no reduction in content length**:

CSS2 - Introduction

What is CSS?

CSS stands for **Cascading Style Sheets**. It is **used to control** the **style and layout of web pages**. CSS separates the content (HTML) from the design (colors, fonts, spacing, etc.). This makes web development more organized and easier to maintain.

Benefits of CSS:

1. Separation of Content and Design:

CSS keeps the HTML code clean by separating the styling part. This means you can write the structure using HTML and apply design using CSS.

2. Faster Page Load:

Since CSS is stored in external files and reused across pages, it reduces the amount of code and speeds up page loading.

3. Consistency in Design:

CSS ensures that the same style is applied to multiple web pages, which makes your website look consistent throughout.

4. Easy Maintenance:

If you want to change the style of a website, you only need to update the CSS file instead of editing every HTML file.

5. Improved Accessibility:

With proper use of CSS, you can create websites that are more user-friendly and accessible on different devices.

CSS Versions History:

1. CSS1:

Introduced in 1996. It included basic styling like fonts, colors, and spacing.

2. CSS2:

Released in 1998. It added features like positioning, media types, and support for tables.

3. CSS2.1:

A revision of CSS2 with improved browser support. It fixed many bugs and became a stable version.

4. CSS3:

Divided into modules like animations, transitions, flexbox, etc. It brought advanced features and is widely used today.

CSS Syntax:

CSS syntax consists of three main parts:

```
/selector {  
/property: ✓value;  
}
```

- **Selector:** Selects the HTML element to style.
- **Property:** The attribute you want to change (like color, font-size).
- **Value:** The setting you want to apply (like red, 16px).

External Style Sheet using <link>:

An **external style sheet** is a separate .css file that contains all the CSS code.

It is linked to the HTML file using the <link> tag inside the <head> section.

Example:

```
<link rel="stylesheet" type="text/css" href="styles.css">
```

- It allows you to reuse the same stylesheet across multiple pages.
- It keeps the HTML code clean and easy to manage.

Multiple Style Sheets:

You can link more than one stylesheet to a single HTML document.

Browsers apply them in the order they appear in the document.

Example:

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

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

Styles defined last (in the source code) will usually take priority if there are conflicts.

- If there is a conflict, the last loaded stylesheet overrides the earlier ones due to the cascading rule.

Value Lengths and Percentages:

In CSS, lengths and percentages are used to define the size and spacing.

Types of Lengths:

1. Absolute Units: Fixed size

- Example: px, cm, mm, in
- E.g., font-size: 16px;

2. Relative Units: Size relative to another element

- Example: em, rem, %
- E.g., width: 80%;
- Percentages are useful when designing responsive layouts.
- They depend on the size of the parent element.

Linking to a CSS:

To use CSS in HTML, you can link in three ways:

1. **External CSS** (**Recommended for large websites**):

Use the <link> tag to link to an external .css file.

2. **Internal CSS:**

Defined inside a <style> tag within the <head> of the HTML page.

Example:

```
<style>
```

```
body {
```

```
background-color: lightblue;
```

```
}
```

```
</style>
```

3. **Inline CSS:**

Written inside the HTML tag using the style attribute.

Example:

```
<p style="color:red;">This is a red text.</p>
```

Creating an Internal Style Sheet:

An internal stylesheet is useful when you want to apply styles to one specific HTML page only.

It is placed inside the <style> tag in the <head> section.

Example:

```
<head>
  <style>
    h1 {
      color: blue;
      font-size: 24px;
    }
  </style>
</head>
```

ID ID and Class in CSS:

ID Selector:

- Used to apply styles to a **single unique element**.
- Uses the **# symbol** before the ID name.

Example:

```
#header {
  background-color: yellow;
}
```

Class Selector:

- Used to apply styles to **multiple elements**.
- Uses the **.** (dot) before the class name.

Example:

```
.title {  
  font-weight: bold;  
}
```

- You can use **ID once** per page, but **Class multiple** times.
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✂ CSS Syntax Summary:

- The basic structure is:
 - selector {
 - property: value;
 - }
 - CSS can be written as **single style sheets** or **multiple sheets**.
 - It supports **lengths** (like px, em) and **percentages** (like 50%).
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Let me know if you'd like a short revision notes version of this or want the same for **CSS3 topics** as well! 😊