Basic Web Design

CSS

LECTURE - 08

Recap

- HTML
- **Homework**:
- *Class work:*

Course Contents

- Introduction to CSS
- How to add CSS
- CSS Syntax
- CSS Selectors

Introduction to CSS

- **CSS** stands for ***Cascading Style Sheets***

- It's a stylesheet language used to ***describe the presentation*** of a document written in HTML

- It controls the ***layout, colors, fonts, and overall appearance of web pages***, making it possible to create visually engaging and well-structured websites.

Two side-by-side browser renderings of the same HTML page with different stylesheets.

Left rendering (no/default stylesheet):

Welcome to My Homepage

Use the menu to select different Stylesheets

- Stylesheet 1
- Stylesheet 2
- Stylesheet 3
- Stylesheet 4
- No Stylesheet

Same Page Different Stylesheets

This is a demonstration of how different stylesheets can change the layout of your HTML page. You can change the layout of this page by selecting different stylesheets in the menu, or by selecting one of the following links:
Stylesheet1, Stylesheet2, Stylesheet3, Stylesheet4.

No Styles

This page uses DIV elements to group different sections of the HTML page. Click here to see how the page looks like with no stylesheet:
No Stylesheet.

Right rendering (red-themed stylesheet):

Welcome to My Homepage

Use the menu to select different Stylesheets

| Stylesheet 1 |
| Stylesheet 2 |
| Stylesheet 3 |
| Stylesheet 4 |
| No Stylesheet |

Same Page Different Stylesheets

This is a demonstration of how different stylesheets can change the layout of your HTML page. You can change the layout of this page by selecting different stylesheets in the menu, or by selecting one of the following links:
Stylesheet1, Stylesheet2, Stylesheet3, Stylesheet4.

No Styles

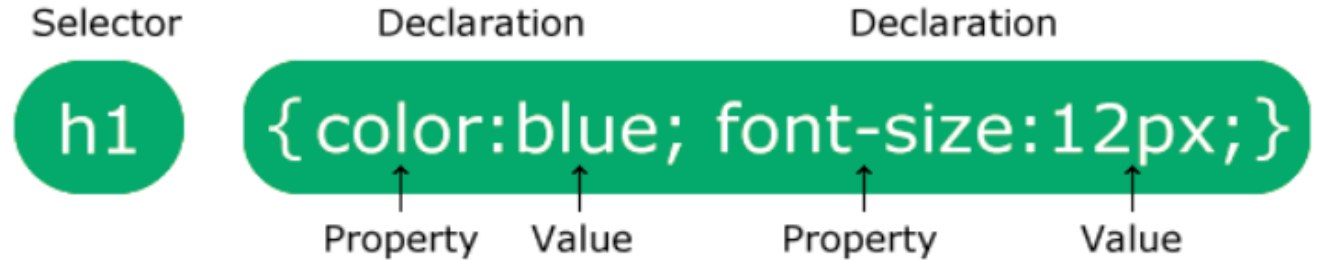This page uses DIV elements to group different sections of the HTML page. Click here to see how the page looks like with no stylesheet:
No Stylesheet.

CSS Syntax

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

Selector: Specifies which HTML elements the style applies to.

Property: The CSS attribute you want to change.

Value: The setting for the property.

** Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

CSS Syntax (Example)

```
<p>This is paragraph 1</p>

<p>This is paragraph 2</p>


CSS:

p {

  color: red;

  text-align: center;

}
```

This is Paragraph 1

This is paragraph 2

What to learn now?

Selector?

Property?

How to?

CSS Selectors

- A CSS selector selects the HTML element(s) you want to style.

- We can divide CSS selectors into five categories:

- **Basic Selectors** (select elements based on name, id, class)

- **Combinator selectors** (select elements based on a specific relationship between them)

- **Pseudo-class selectors** (select elements based on a certain state)

- **Pseudo-elements selectors** (select and style a part of an element)

- **Attribute selectors** (select elements based on an attribute or attribute value)

CSS Basic Selectors

Element Selector

Targets all instances of a specific HTML element.

Example: `p { text-align: center; }`

ID Selector

Targets an element with a specific ID.

Example: `#para1 { text-align: center; }`

Class Selector

Targets all elements with a specific class.

Example: `.center { text-align: center; }`

CSS Grouping and Universal Selector

Grouping Selector

Allows you to apply the same style to multiple elements at once.

Example: `h1, h2, p {`

`text-align: center;`

`color: blue;`

`}`

Universal Selector

Targets all elements on the page.

Example: `* {`
`text-align: center;`
`color: blue;`
`}`

CSS Attribute Selector

The `[attribute]` selector is used to select elements with a specified attribute.

Example:

1. style all `<input>` elements with `type="text"`.

```css
input[type="text"] {
    border: 1px solid black;
}
```

2. apply the blue border to all images with a `.jpg` extension.

```css
img[src$=".jpg"] {
    border: 2px solid blue;
}
```

CSS Pseudo-Class Selectors

A pseudo-class is used to define a **special state of an element**.

For example, it can be used to:

Style an element when a user mouses over it

Style visited and unvisited links differently

Style an element when it gets focus

Example:

Styles an element when the mouse hovers over it.

```css
a:hover {
    color: red;
}
```

CSS Pseudo-Element Selectors

A CSS pseudo-element is used to style **specified parts of an element**.

For example, it can be used to:

Style the ***first letter, or line, of an element***

Insert content before, or after, the content of an element

Example:

 Styles the first letter of the text content.

```css
p::first-letter {
    font-size: 200%;
    color: red;
}
```

CSS Combinator Selectors

A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator. There are four different combinators in CSS:

descendant selector (space)

child selector (>)

adjacent sibling selector (+)

general sibling selector (~)

Example:

Descendant Selector (space): Targets elements inside other elements.

```
div p {
    color: blue;}
```

How To Add CSS

- When a browser reads a style sheet, it will format the HTML document according to the information in the style sheet.

- CSS can be added in three ways:

- **Inline CSS:** Inside an HTML tag using the `style` attribute.

- **Internal CSS:** Inside the `<style>` tag in the HTML head.

- **External CSS:** In a separate `.css` file linked to the HTML.

Inline CSS

- An inline style may be used to apply a unique style for a single element.

- Inline styles are defined within the "style" attribute of the relevant element:

- `<h1 style="color:blue;text-align:center;">This is a heading</h1>`

-

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

Internal CSS

- An internal style sheet may be used if one single HTML page has a unique style.

- Internal styles are defined within the `<style>` element, inside the `<head>` section of an HTML page:

- ```
  <style>
  body {
      background-color: linen;
  }
  h1 {
      color: maroon;
      margin-left: 40px;
  }
  </style>
  ```

External CSS

- With an external style sheet, you can change the look of an entire website by changing just one file!

- External styles are defined within the `<link>` element, inside the `<head>` section of an HTML page:

- ```
  <head>
  <link rel="stylesheet" href="mystyle.css">
  </head>
  ```

- **Here is how the `mystyle.css` file looks:**

- ```
  body {
    background-color: lightblue;
  }
  h1 {
    color: navy;
    margin-left: 20px;
  }
  ```

Exercise

End of Lecture

THANK YOU