Introduction to CSS

Trainer's Name

Mukhtar Mahamed

Learning Objectives

By the end of this Module, you should be able to:

1. Understand What CSS is used for.
2. Basic Syntax of CSS
3. Learn different ways to add CSS to document
4. Understand different types of CSS Selectors
5. Combining CSS Selectors

What is CSS?

- **CSS** (Cascading Style Sheets) allows you to create great-looking web pages.
- **CSS** is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.
- CSS is styling Language not programming.

CSS syntax

- **CSS** is a rule-based language — you define rules specifying groups of styles that should be applied to specific elements or groups of elements on your web page.
- **CSS** rule-set consists of a selector and a declaration block.

```
h1 {
    color: red;
    font-size: 18px;
}
```

CSS Comments

- Comments are used to explain the code.
- Browsers ignore CSS Comments.
- A CSS Comments starts with **/*** and ends with ***/.**

```
/* This is CSS comment */
 p {
   color: green;
 }
```

Adding CSS to our document

- There are three ways of inserting a style sheet:
  1. **External CSS**
     - External styles are defined within the **<link>** element, inside the **<head>** section of an HTML page:
     - An external stylesheet contains CSS in a separate file with a **.css** extension.
  2. **Internal CSS**
     - An internal style sheet may be used if one single HTML page has a unique style.
     - The internal style is defined inside the <style> element, inside the head section.
  3. **Inline CSS**
     - Inline styles are CSS declarations that affect a single HTML element,
     - contained within a style attribute.

Basic selectors

- CSS selectors define the elements to which a set of CSS rules apply.
- Each **CSS** rule starts with a selector — or a list of selectors — in order to tell the browser which element or elements the rules should apply to.

The most common CSS Selectors are:-

- Universal Selector
- Element Selector
- Class Selector
- Id selector
- Attribute Selector
- Pseudo Selectors

Styling with Element Selectors

- we can target and style each HTML element by using Element Selector.
- this is a selector that directly matches an HTML element name.
- To target all paragraphs you would use **p selector**.

```
p {
  color: green;
}
```

- You can target multiple selectors at once, by separating the selectors with a comma.

```
p, li {
    color: green;
}
```

Selectors ..

- **Universal Selector**
  - The star symbol (*) will target every single element on the page.
  - * will match all the elements of the document.
- **Class Selector**
  - Selects all elements that have the given class attribute.
  - .**title** will match any element that has a class of “**title**".
- **ID selector**
  - Selects an element based on the value of its id attribute.
  - There should be only one element with a given ID in a document.

Selectors ..

- **Attribute Selector**
  - The CSS attribute selector matches elements based on the presence or value of a given attribute.

Syntax:-

- **[attr]** Represents elements with an attribute name of **attr**.
- **[attr=value]** Represents elements with an attribute name of **attr** whose value is exactly value.
- **[attr^=value]** elements with an attribute name of attr whose value is starts value.
- **[attr$=value]** elements with an attribute name of attr whose value is ends with value.
- **[attr*=value]** attribute value contains value.

Selector Combinators

- A combinator is something that explains the relationship between the selectors.
  - **descendant combinator**
    - The ( ) (**space**) combinator selects nodes that are descendants of the first element.
      - Syntax: **div h1**
  - **Child combinator**
    - The **>** combinator selects nodes that are direct children of the first element.
    - **Syntax**: ul > li will match all <li> elements that are nested directly inside a
  - **sibling selector combinator**
    - The **~** combinator selects siblings that share same parent element
  - **Adjacent sibling combinator**
    - The **+** combinator selects adjacent siblings. This means that the second element directly follows the first

Pseudo class Selectors

- A pseudo-class is used to define a special state of an element.
- The : pseudo allow the selection of elements based on state information
  - Style an element when a user mouses over it
  - Style visited and unvisited links differently
  - Style an element when it gets focus

Syntax

```
selector:pseudo-class {
  property: value;
}
```

Pseudo Classes:- *:hover, :active, :focus, :first-child, last-child, nth-child, :not*

Pseudo Element Selectors

- A CSS pseudo-element is used to style specified parts of an element.
- The :: pseudo represent entities that are not included in HTML.
- it can be used to:
  - Style the first letter, or line, of an element
  - Insert content before, or after, the content of an element

```
selector::pseudo-element {
  property: value;
}
```

Pseudo Element Selectors

- There are 5 commonly used Pseudo Elements :-
  - ::after
  - ::before
  - ::first-letter
  - ::first-line
  - ::selection