**CSS (Cascading Style Sheet)**

CSS describes how HTML elements are to be displayed on screen, paper, or in other media

Why CSS is called?

Cascading Style Sheets or CSS are set up so that you can have many properties all affecting the same element. Some of those properties may conflict with one another. For example, you might set a font color of red on the paragraph tag and then later on set a font color of blue.

Why CSS is used?

CSS (Cascading Style Sheets) is used to style and layout web pages — for example, to alter the font, color, size, and spacing of your content, split it into multiple columns, or add animations and other decorative features.

What is CSS features?

CSS offers several features that make it simple and effective to specify different text styles, including color, alignment, spacing, decoration, transformation, etc. Several frequently used text properties include text-align, text-decoration, text-transform, text-indent, line-height, letter-spacing, and word-spacing.

What is a selector?

What is a selector? A CSS selector is the first part of a CSS Rule. It is a pattern of elements and other terms that tell the browser which HTML elements should be selected to have the CSS property.

Selectors:

* ID
* Class
* Universal Selectors
* Attribute Selectors
* Pseudo class selectors

1. ID: myId

#myId {

}

1. Class:

.myClass{

}

1. Universal

\* {

}

1. Attribute

Input[type=”text”] {

}

1. Pseudo class selectors

a:hover {

}

Types of CSS

The three types of CSS:

* Inline
* Internal
* External

**Inline**: Inline CSS is applied directly to individual HTML elements using the **style** attribute.

<p style="color: red; “>Hello</p>

**Internal**: Internal CSS is defined within the **<style>** element in the **<head>** section of an HTML document.

<head>

<style>

p {

color: blue;

font-size: 14px;

}

</style>

</head>

**External:** An external style sheet is a separate CSS file linked to an HTML document using the **<link>** element within the **<head>** section.

<head>

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

</head>

**Multiple Style Sheets**:

HTML documents can link to multiple external style sheets

Each style sheet can target specific elements or aspects of the website's design.

Style sheets are applied in the order they are linked, with later styles overriding earlier ones in case of conflicting rules

**Value Lengths and Percentages:**

**Fixed Lengths**:

* **Description**: Fixed lengths are specified using absolute units like pixels (px), points (pt), inches (in), centimeters (cm), and millimeters (mm).

width: 200px;

height: 100px;

font-size: 14pt;

margin-left: 20mm;

**Percentages**:

* **Description**: Percentages are used to specify sizes relative to the parent element's size or the size of the containing block.

width: 80%;

**Relative Units**:

* **Description**: Relative units are used to specify sizes relative to other elements or properties, such as the font size of the parent element (**em**), the font size of the root element (**rem**), or the viewport dimensions (**vw** and **vh**).

font-size: 1.2em;

padding: 1rem;

width: 50vw;

**Font:**

Color

text-decoration

text-align

text-transform

letter-spacing

word-spacing

line-height

font-family

font-size

font-style

font-weight

**Background:**

Background-color

Background-image

Background-repeat

Background-position

**CSS Cursor**

cursor: pointer;

cursor: help;

cursor: text;

* **list-style-type**
* **list-style-position**

list-style-position: var();

:root {

--list-position: inside; /\* Set the variable to 'inside' \*/

--list-position: outside; /\* Set the variable to 'inside' \*/

}

.unorder{

list-style-position: var(--list-position);

}

* **list-style-image**
* **list-style**

**Box Model**

**Content**: The actual content of the element, such as text, images, or other media. It's defined by the width and height properties.

**Padding**: The space between the content and the border. It's defined by the padding-top, padding-right, padding-bottom, and padding-left properties. Padding adds space inside the element, pushing the content away from the border.

**Border**: The border surrounding the padding and content. It's defined by the border-width, border-style, and border-color properties. The border separates the padding from the margin and provides a visual boundary for the element.

**Margin**: The space outside the border, which separates the element from other elements on the page. It's defined by the margin-top, margin-right, margin-bottom, and margin-left properties. Margins create space between elements.

**.box {**

**width: 200px;**

**height: 100px;**

**padding: 20px;**

**border: 2px solid black;**

**margin: 10px;**

**}**

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**| margin |**

**| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |**

**| | border | |**

**| | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |**

**| | | padding | | |**

**| | | \_\_\_\_\_\_\_\_\_\_\_ | | |**

**| | | | content | | | |**

**| | | | | | | |**

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Display Property:

### Flexbox:

Flexbox (Flexible Box Layout) is a one-dimensional layout model that allows you to distribute space among items within a container along a single axis (either horizontally or vertically). It's particularly useful for creating layouts with a single row or column of items, or for aligning items within a container in various ways.

### Grid:

CSS Grid Layout is a two-dimensional layout model that allows you to create grid-based layouts with rows and columns. It provides a more powerful and comprehensive way of designing layouts compared to Flexbox, especially for complex grid structures.