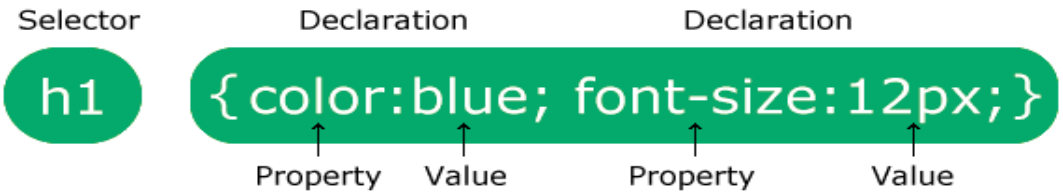
CSS(Cascading Style Sheets)

CSS (Cascading Style Sheets) is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to HTML documents. It describes how a webpage should look. It prescribes colors, fonts, spacing, etc. In short, you can make your website look however you want. CSS lets developers and designers define how it behaves, including how elements are positioned in the browser. HTML uses tags and CSS uses rulesets. CSS styles are applied to the HTML element using selectors. CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

Syntax:



- The selector points to the HTML element you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.
- Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

Insert CSS

There are three ways of inserting a style sheet:

- External CSS
- Internal CSS
- Inline CSS

External CSS:

In this type, we create an external stylesheet which means a separate file and then we link it to HTML. CSS file is written separately in a .css file extension and linked to the HTML file using the <link> tag.

Internal CSS:

CSS styles are added in the HTML file by writing inside the <style> </style> tag. This is a slightly efficient method of including CSS in HTML.

Note: Add <style> </style> tag before the body tag as the compiler reads the code line wise it will be effective considering the runtime of the code.

Inline CSS:

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

To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

CSS Selectors:

CSS selectors are used to "find" (or select) the HTML elements you want to style.

- Simple 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 element Selector:

The element selector selects HTML elements based on the element name

Example:

```
p {
  text-align: center;
  color: red;
}
```

CSS id Selector:

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element is unique within a page, so the id selector is used to select one unique element.

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

Example:

```
#para1 {
  text-align: center;
  color: red;
}
```

CSS class Selector:

The class selector selects HTML elements with a specific class attribute. To select elements with a specific class, write a period (.) character, followed by the class name.

Example:

```
.center {
  text-align: center;
  color: red;
}
```

Universal Selector:

The universal selector (*) selects all HTML elements on the page.

Example:

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

CSS Colors:

- Built-In Color
- RGB Format
- RGBA Format
- Hexadecimal Notation
- HSL
- HSLA

CSS Margins:

The CSS margin property allows us to create ***space around an element***. They define the gap between an element and its

neighboring elements. Margins can be set individually for each side (top, right, bottom, left).

Margin Values:

- Length (e.g., px, rem, em, ex, vh, vw, etc)
- Percentage (relative to the element's width)
- auto (calculated by the browser)
- margin allows negative values

Margin Properties:

1. margin-top: Sets the top margin of an element.
2. margin-right: Sets the right margin of an element.
3. margin-bottom: Specifies the margin at the bottom of an element.
4. margin-left: Determines the width of the margin on the left side of an element.

Syntax:

element name {

margin: value;

}

margin: 25px 50px 75px 100px;

- top margin is 25px
- right margin is 50px
- bottom margin is 75px
- left margin is 100px

If the margin property has two values:

margin: 25px 50px;

- top and bottom margins are 25px
- right and left margins are 50px

CSS Padding:

CSS Padding property is used to create space between the ***element's content and the element's border***. It only affects the content inside the element. We can independently change the top, bottom, left, and right padding using padding properties.

Padding Properties:

1. padding-top: Sets the padding for the top side of the element.
2. padding-right: Sets the padding for the right side of the element.
3. padding-bottom: Sets the padding for the bottom side of the element.
4. padding-left: Sets the padding for the left side of the element.

Padding Values:

- Length- in cm, px, pt, etc.
- Width- % width of the element.
- inherit- inherit padding from parent element

Example:

```
div {
  padding: 25px 50px 75px 100px;
}
```

padding: 25px 50px 75px 100px;

- top padding is 25px
- right padding is 50px
- bottom padding is 75px
- left padding is 100px

padding: 25px 50px 75px ;

- top padding is 25px
- right and left paddings are 50px
- bottom padding is 75px

padding: 25px 50px ;

- top and bottom paddings are 25px
- right and left paddings are 50px

CSS Borders:

The CSS border properties allow you to specify the style, width, and color of an element's border.

Borders Properties:

1. border-style: Determines the type of border (e.g., solid, dashed, dotted).
2. border-width: Sets the width of the border (in pixels, points, or other units).
3. border-color: Specifies the border color.
4. border-radius: Creates rounded corners for elements.

Border Style

- dotted - Defines a dotted border
- dashed - Defines a dashed border

- solid - Defines a solid border
- double - Defines a double border
- groove - Defines a 3D grooved border. The effect depends on the border-color value
- ridge - Defines a 3D ridged border. The effect depends on the border-color value
- inset - Defines a 3D inset border. The effect depends on the border-color value
- outset - Defines a 3D outset border. The effect depends on the border-color value
- none - Defines no border
- hidden - Defines a hidden border

Example:

```
p.one {
  border-style: solid;
  border-color: red;
}
```

- If the border-style property has four values:
  border-style: dotted solid double dashed;
  - top border is dotted
  - right border is solid
  - bottom border is double
  - left border is dashed
- If the border-style property has three values:

border-style: dotted solid double;

- top border is dotted
- right and left borders are solid
- bottom border is double

- If the border-style property has two values:

  border-style: dotted solid;

  - top and bottom borders are dotted
  - right and left borders are solid

- If the border-style property has one value:

  border-style: dotted;

  - all four borders are dotted

The border property is a shorthand property for the following individual border properties:

- border-width
- border-style (required)
- border-color

```
p {
  border: 5px solid red;
}
```

Rounded Borders:

```
p {
  border: 2px solid red;
  border-radius: 5px;
}
```