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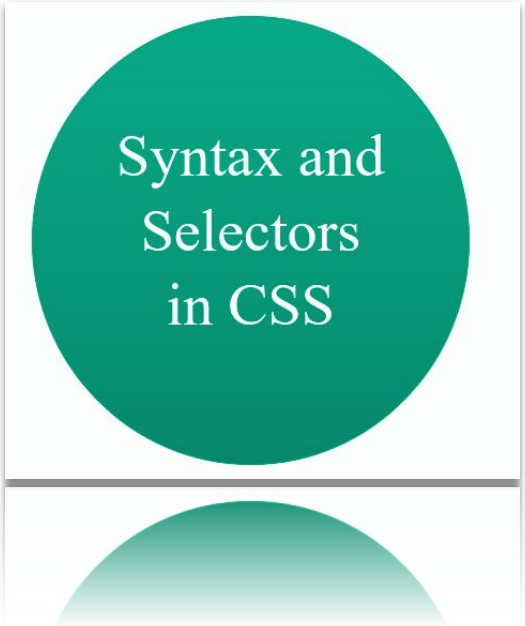
Syntax and Selectors in CSS

By Yash Sharma



Importance of CSS

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- HTML is the fundamental structure of every web page, but it is unattractive without any color/text/structure differentiation.
- *CSS* can be used to style the HTML content on a web page.
- Modifying colors, font types, font sizes, images, element positioning, and more can be done with help of CSS.

Importance of CSS

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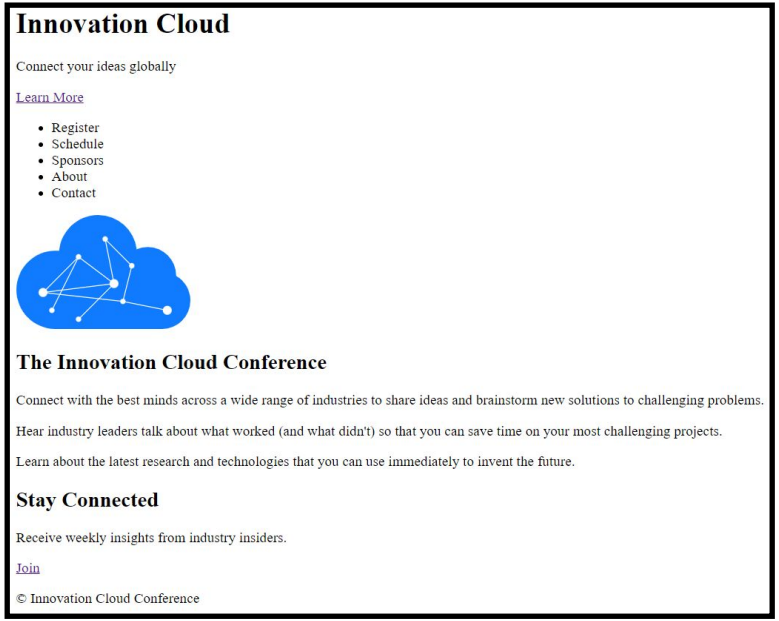
Web page with and without CSS:



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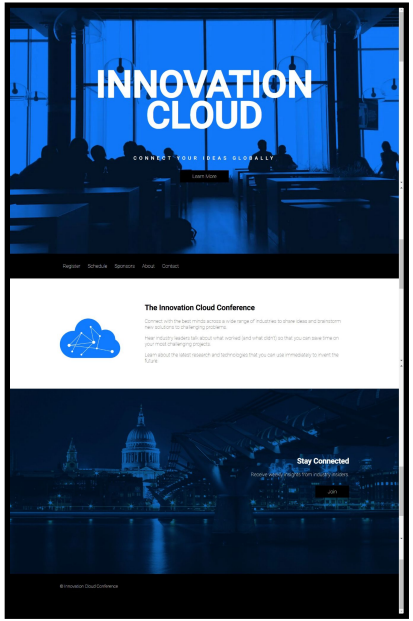

CSS Syntax

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- There are three ways to include styles in CSS.
  - Inline CSS.
  - Internal CSS.
  - External CSS.
- The syntax will be the same for internal and external CSS.
- But it will be different for Inline CSS.

CSS Syntax - Internal / External CSS

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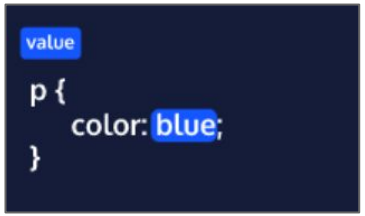
In the internal/ external CSS styles can be applied to HTML elements/ id of the elements/ class of the elements.



CSS Syntax - Inline CSS

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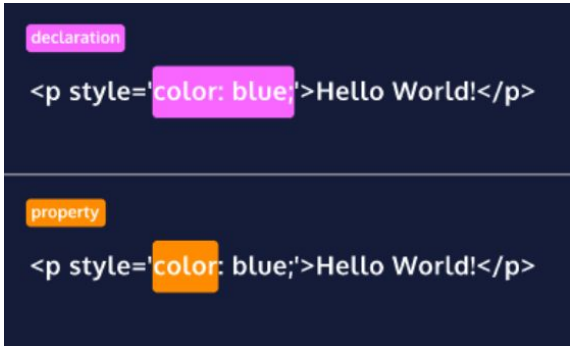
In the inline CSS the styles will be applied to the elements along the open tag of the element with help of the style attribute.



CSS Syntax

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- Internal styles can be used to style HTML but are also not best practice.
- An external stylesheet separates CSS code from HTML, by using the “.css”.file extension.
- External stylesheets are the best approach when it comes to using HTML and CSS.
- External stylesheets are linked to HTML using the <link> element.

CSS Selectors

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- The style can be applied to HTML elements by using their tag name (h1 /h6 /p), id's and class names.
- Declarations are a fundamental part of CSS because they apply a style to a selected element.
- A selector is used to target the specific HTML element(s) to be styled by the declaration.

CSS Selectors - Type Selector

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- Styles are applied to Tag name of the HTML element - **Type selector/ Element selector**.

- Example:

```
p {
  color: blue; /* text color */
  text-align: center; /* text alignment */
  background-color: pink; /* adding
  background-color to the paragraph */
}
```

- The type selector will be applied to all the elements of the given type. The above style is applied to all <p> elements in the HTML document.

CSS Selectors - Universal Selector

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- Style will be applied to all the elements on the page ***** is used to specify the universal selector.
- Example:

```
* {
    border: 1px solid red;
}
```

- The red color border will be applied to all the elements of the HTML document.

CSS Selectors - Class Selector

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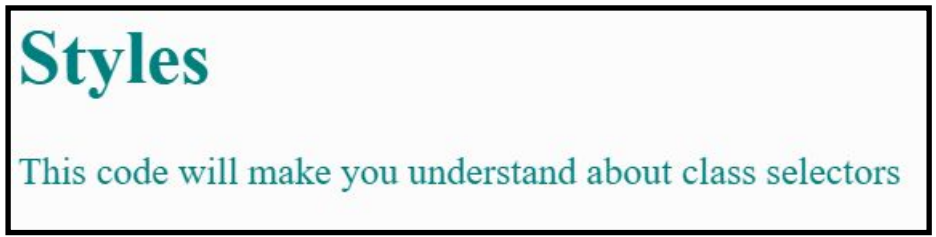
- HTML elements have class attributes, which is the most common way to select an element.
- Same class name can be used to multiple elements so the styles can be reused.
- To select a class name in the CSS **.** has to be prepend with the class name.

```
<h1 class="color">Styles</h1>
<p class="color">This code will make you understand about class selectors</p>
```

```
.color{
  color: teal;
}
```

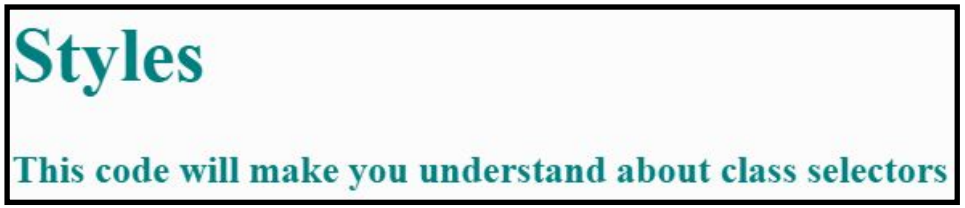


CSS Selectors - Class Selector

Same class name can be used to multiple elements, similarly multiple class names can be given to the same element.

```
<h1 class="color">Styles</h1>
<p class="color bold">This code will make you understand about class selectors</p>
```

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



CSS Selectors - Id Selector

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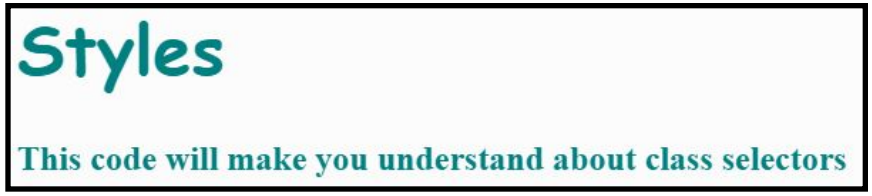
- Id of the element is unique, similarly when unique styles have to be applied to the elements Id selectors are used.

- To select an id of an HTML element in the CSS **#** has to be prepend with the id of the element.

```
<h1 class="color" id="header-font">Styles</h1>
<p class="color bold">This code will make you understand about class selectors</p>
```

```
#header-font{
  font-family: cursive;
}
```



CSS Selectors - Attribute Selector

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By using this attribute selector we can add styles to the element that has the attribute with specified value.

```
<br> <br>
<img src="image1.jfif">
<br> <br>
<img src="image2.jfif">
```

```
img[src*='image']{
    width: 50px;
    height: 50px;
}
```

CSS Selectors - Pseudo Class

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To change the appearance of certain elements, in different states pseudo class method is used.

```
<a href="#">Learn more</a>
```

```
a:hover{
  color: orange;
}
```

Learn more

Learn more

Measurement Units

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CSS supports absolute units(inches, cm, points) and relative units(%, em). The following table describes some important units involved in CSS with examples.

Unit	Description	Example
%	Defines a measurement as a percentage relative to another value, typically an enclosing element.	p {font-size: 16pt; line-height: 125%;}
cm	Defines a measurement in centimeters.	div {margin-bottom: 2cm;}

Measurement Units

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Unit	Description	Example
em	A relative measurement for the height of a font in em spaces. Because an em unit is equivalent to the size of a given font, if you assign a font to 12pt, each "em" unit would be 12pt; thus, 2em would be 24pt.	p {letter-spacing: 7em;}
ex	This value defines a measurement relative to a font's x-height. The x-height is determined by the height of the font's lowercase letter x.	p {font-size: 24pt; line-height: 3ex;}
in	Defines a measurement in inches.	p {word-spacing: .15in;}

Measurement Units

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Unit	Description	Example
mm	Defines a measurement in millimeters.	p {word-spacing: 15mm;}
pc	Defines a measurement in picas. A pica is equivalent to 12 points; thus, there are 6 picas per inch.	p {font-size: 20pc;}
pt	Defines a measurement in points. A point is defined as 1/72nd of an inch.	body {font-size: 18pt;}
px	Defines a measurement in screen pixels.	p {padding: 25px;}