



Diploma in **Web Development**

Introduction to CSS



What is CSS? ◀

Working with pseudo-classes ◀

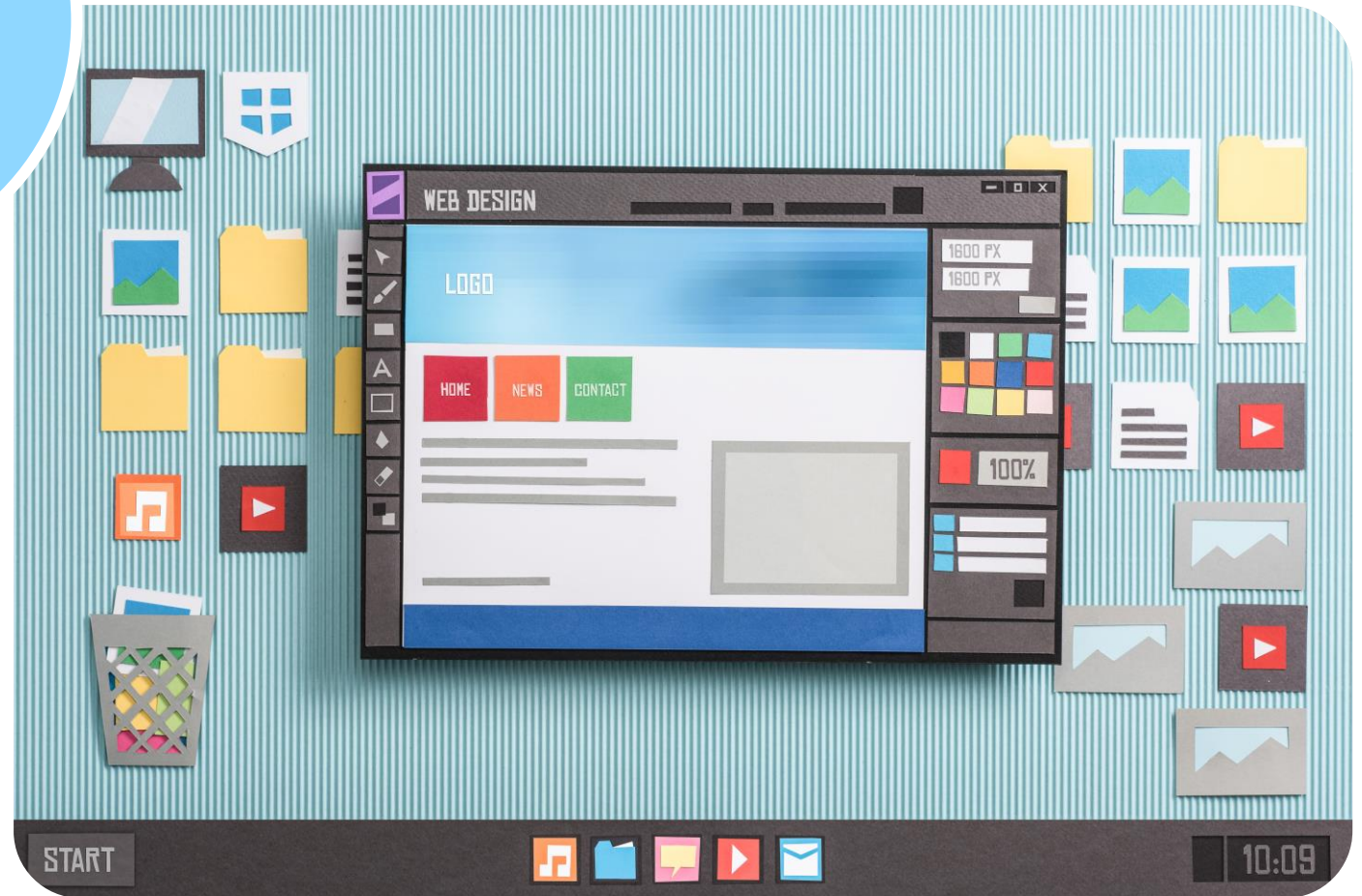
Approaches to styling ◀

Working with fonts ◀

Objectives

**DID YOU
KNOW?**

“CSS was first proposed by
Håkon Wium Lie on October
10, 1994.” - Wikipedia



CSS defined

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language.





Characteristics of CSS

Allows computing devices to display web pages differently.

Enables the separation of presentation and content.

Improves content accessibility.

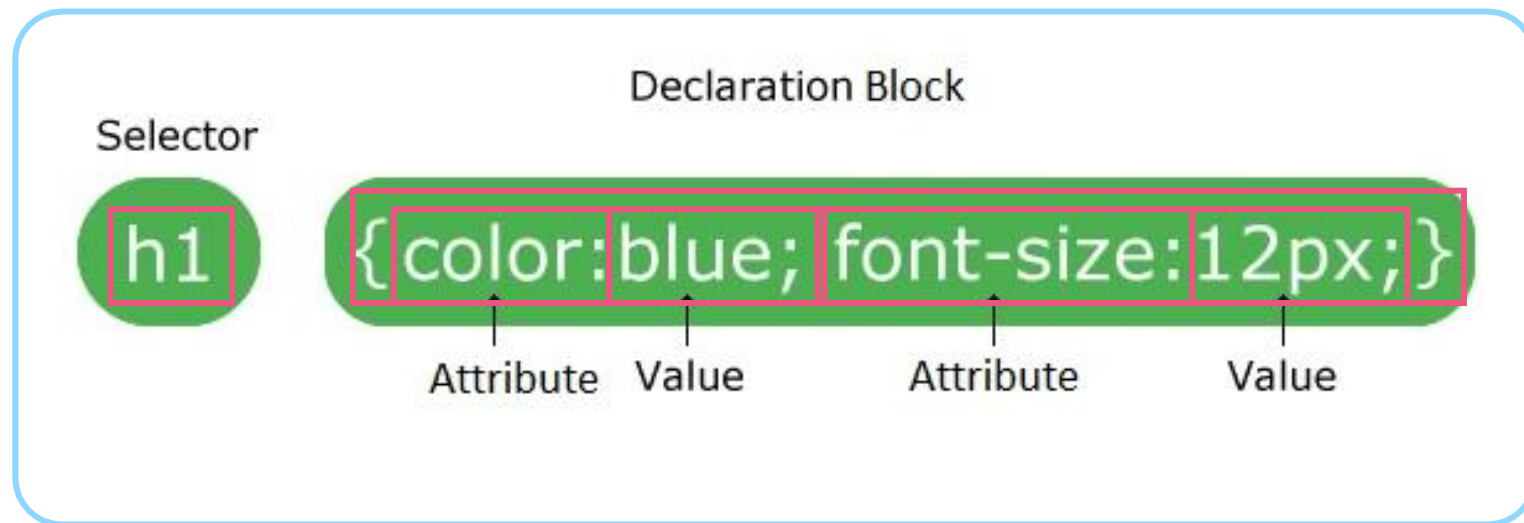
Uses selectors in order to target HTML elements.

Declaration blocks are used to specify changes.



Defining a CSS declaration block

- Selector
- Declaration block
- Attribute
- Value





Common selectors


Element/Tag	Example	Details
.class	.container	Selects all elements with a class name of <i>container</i>
#id	#student-number	Selects an element with a uniquely identifiable ID i.e <i>student number</i>
element	h1	Selects all <h1> elements
element,element	div, p	Selects all <div> elements and all <p> elements
element element	nav li	Selects all elements inside <nav> elements
element+element	div + h2	Selects all <h2> elements that are placed immediately after <div> elements





Pseudo-classes

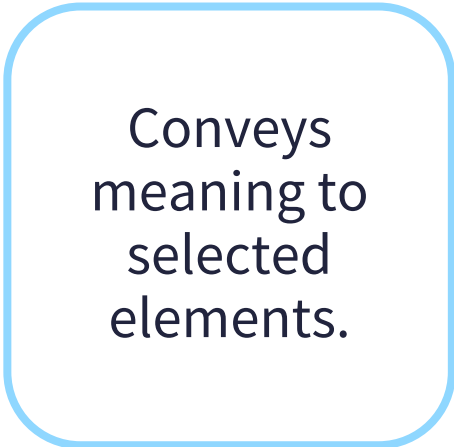
Used to define a special state of an element. Elements, much like most objects can exist in different states.



Why use pseudo-classes?



Enables improved navigation for end-user.



Conveys meaning to selected elements.

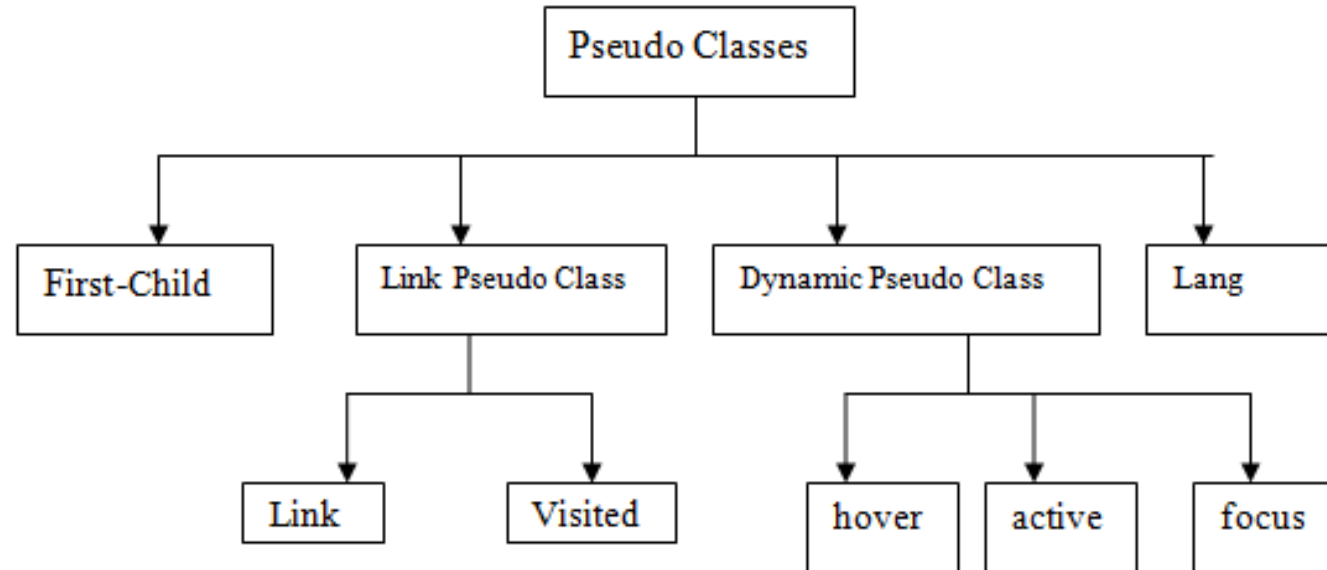


Enhances user interface.





Pseudo-class model





Common pseudo-classes

Element/Tag	Example	Details
:active	a:active	Selects the active link
:hover	a:hover	Selects links on mouse over
:link	a:link	Selects all unvisited links
:visited	a:visited	Selects all visited links
:focus	input:focus	Selects the input element which has focus
:checked	input:checked	Selects every checked <input> element
:disabled	input:disabled	Selects every disabled <input> element
:first-child	p:first-child	Selects every <p> element that is the first child of its parent
:invalid	input:invalid	Selects all input elements with an invalid value





Approaches to styling

External

Internal

Inline



External styling

Considered best practice for most web development projects. Allows developers to change the styling of an entire website from a single style sheet.

```
/*My first Style Sheet*/

.pos-body{
    margin: 0;
}

.pos-wrapper{

    background-color: lightgrey;
    /*responsive design*/
    width: 40%;
    /*hard coded height use first and then remove*/
    /*height: 120px;*/
    /*short hand for padding*/
    padding:30px 10px 30px 10px;
    /*center div*/
    margin:30px auto;
    /*overrides % width specified earlier*/
    max-width: 800px;
    min-width: 400px;
    /*overrides px height specified earlier*/
    min-height: 120px;
    /*example of putting divs side by side*/
    /*display: inline-block;*/

}

.pos-wrapper-2
{
    background-color:brown;
    height:200px;
    width:10%;
    /*example of putting divs side by side*/
    /*display:inline-block;*/
}
```


Internal styling

Embedded between the <head> tags of an HTML document. Styles all elements within a single document. Uses the <style> tag.

```
1 <!DOCTYPE>
2 <html>
3   <head>
4     <title> Products Page </title>
5     <style>
6       .product_heading{
7
8         text-decoration: underline;
9
10      }
11
12      .product_price{
13        font-style: italic;
14      }
15
16      #img_1 {
17        border-color: blue;
18        width: 400px
19      }
20
21      #img_2 {
22        border-color: red;
23        width: 400px
24      }
25
26      #img_3 {
27        border-color: orange;
28        width: 400px
29      }
30
31
32
33
34   </style>
35 </head>
36 <body>
37   <header>
38     <h1>Products</h1>
39   </header>
40
```



Inline styling

Embeds styling within HTML elements, usually in the same instance in which elements are created.

```
1 <!DOCTYPE>
2 <html>
3   <head>
4     <title> My New Website </title>
5   </head>
6   <body>
7     <header>
8       <h1>Hello World</h1>
9     </header>
10    <nav>
11      <ul>
12        <li><a href="index.html">Home</a></li>
13        <li><a href="cart.html">Cart</a></li>
14        <li><a href="about.html">About Us</a></li>
15        <li><a href="register.html">Register</a></li>
16        <li><a href="prices.html">Price List</a></li>
17      </ul>
18    </nav>
19    <hr width="1300">
20    <section>
21
22    <p> Welcome to IFS 354. In this course, you will learn the basics of
23
24    <br>
25
26
27    </section>
28
29    <section>
30      <h2 style="color:blue;margin-left:30px;">What is HTML?</h2>
```

Commenting in CSS

Developers usually insert comments to specify the purpose of the style sheet or to include author details.

To comment in CSS, we use the following notation:

`/*comment*/`

```
/*My first Style Sheet*/

.pos-body{
    margin: 0;
}
.pos-wrapper{

    background-color: lightgrey;
    /*responsive design*/
    width: 40%;
    /*hard coded height use first and then remove*/
    /*height: 120px;*/
    /*short hand for padding*/
    padding:30px 10px 30px 10px;
    /*center div*/
    margin:30px auto;
    /*overrides % width specified earlier*/
    max-width: 800px;
    min-width: 400px;
    /*overrides px height specified earlier*/
    min-height: 120px;
    /*example of putting divs side by side*/
    /*display: inline-block;*/

}

.pos-wrapper-2
{
    background-color:brown;
    height:200px;
    width:10%;
    /*example of putting divs side by side*/
    /*display:inline-block;*/
}
```





Linking the style sheet

In order to link an externally created style sheet, use the `<link>` tag between the `<head>` within the HTML document.

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

Specifies the relationship between the current document and the linked document.



Working with fonts

Typography is the art of designing the appearance of characters and letters on a page. To alter the font of text, use the “*font-family*” attribute.



Web safe font stacks

A complete collection of web safe CSS font stacks.

Sans-serif

Arial

Win: 99.84%

Mac: 98.74%



Arial Black

Win: 98.08%

Mac: 96.22%



Arial Narrow

Win: 88.39%

Mac: 94.77%



Arial Rounded MT Bold

Win: 59.53%

Mac: 95.14%



Avant Garde

Win: 0%

Mac: 1.08%



Calibri

Win: 83.41%

Mac: 38.74%



Candara

Win: 83.08%

Mac: 34.41%



Century Gothic

Win: 87.62%

Mac: 53.15%



Franklin Gothic Medium

Win: 99.18%

Mac: 2.1%



Futura

Win: 1.26%

Mac: 94.41%



Geneva

Win: 2.08%

Mac: 99.64%



Gill Sans

Win: 58.54%

Mac: 95.5%



Helvetica

Win: 7.34%

Mac: 100%



Impact

Win: 0%

Mac: 95.14%



Lucida Grande

Win: 0%

Mac: 100%



Optima

Win: 2.52%

Mac: 93.69%



Segoe UI

Win: 75.36%

Mac: 0%



Tahoma

Win: 99.95%

Mac: 91.71%



Trebuchet MS

Win: 99.67%

Mac: 97.12%



Verdana

Win: 99.84%

Mac: 99.1%



(Source: ComD 2018)





Scaling fonts

Absolute size

Relative size



Scaling fonts

Absolute

- Sets the text to a specified size.
- Does not allow a user to change the text size in all browsers.
- Useful when the physical size of the output is known.



Scaling fonts

Relative

- Sets the size relative to surrounding elements.
- Allows a user to change the text size in browsers.





Absolute fonts sizes

Absolute font sizes generally use fixed values, such as pixels (px), to specify text sizes.

```
h1 {  
  font-size: 40px;  
}  
  
h2 {  
  font-size: 30px;  
}  
  
p {  
  font-size: 14px;  
}
```



Relative fonts sizes

Setting font sizes using the em size enables users to resize the text and is often a preferred alternative to px. 1em is equal to the default text size of browsers, 16px.

```
h1 {  
  font-size: 2.5em; /* 40px/16=2.5em */  
}  
  
h2 {  
  font-size: 1.875em; /* 30px/16=1.875em */  
}  
  
p {  
  font-size: 0.875em; /* 14px/16=0.875em */  
}
```



Relative fonts sizes

- Much like *em*, using percent % as a unit is also highly responsive approach to developing content, it's much easier on your visitors to use scalable text that can display on any device.
- **1em = 12pt = 16px = 100%.**

	<code>body { font-size: 100%; }</code>	<code>body { font-size: 120%; }</code>
<code>font-size: 1em</code>	The quick brown fox	The quick brown
<code>font-size: 12pt</code>	The quick brown fox	The quick brown fox
<code>font-size: 16px</code>	The quick brown fox	The quick brown fox
<code>font-size: 100%</code>	The quick brown fox	The quick brown

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Let's code!

