

Module 3-2

CSS Selectors

HTML Elements: The Box Model

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- HTML content that have been annotated with tags **are known as HTML elements.**
- All elements come with a margin, border, and padding, this is referred to as the box model.



Image - Image of Box Model

HTML Elements: Inline vs Block

- HTML elements are also classified as being inline vs block.
 - **Inline:** Does not start on a new line
 - **Block:** Starts on a new line
- Common inline elements: a, img, span
- Common block elements: p, div, table

HTML Elements: inline-block

There is a third type of display known as an inline-block to which elements can be set to, which has characteristics of both inline and block elements:

- Unlike block elements, they don't create line breaks.
- Unlike inline elements, you can adjust its width and height.

Let's Test This

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HTML Elements: Positioning

- All elements have a default flow, a position they will fall into in the absence of additional instructions. This is known as “static” flow. There are additional defined positions:
 - **relative:** “relative” to what it would be positioned per the normal flow. (Hard to explain, we’ll do an example)
 - **absolute:** positioned relative to its ancestor.
 - **fixed:** positioned relative to your screen, will follow you as you scroll.

Let's Test This

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What is CSS?

- CSS (Cascading Style Sheets) are used to change the default style of HTML elements.
 - Some of the things we've seen so far are considered style changes - borders, margins, making text bold, positioning, etc.
- CSS code can be included within the `<head>...</head>` section of a HTML document or it can be included in its own separate file.
 - The latter is much preferred.
 - Files names should end with a `*.css` extension.

CSS Selectors

- CSS uses selector to determine which HTML elements will be “targeted” or selected to have a specific format.
- Generally speaking, there will be a CSS block that looks like so:

```
SELECTOR {  
    attribute : attribute value  
}
```

- We will start discussion three most important types of selectors in the next section.

CSS Selectors: By Element

Example

```
div {  
    color : red;  
}
```

A valid HTML element type is used, in the example to the left, the DIV type.


What this code does: Finds all HTML elements that are <div>'s and applies the formatting, which is to make all the enclosed text red.

CSS Selectors: By Class

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Example

```
.warning {  
  
    color : red;  
  
}
```



The dot is required for selection by class.

Anytime you see a dot, it is selection by class!

A valid class name is used, in the example to the left, any element of class “warning.”

What this code does: Finds all HTML elements that have the class specified. In other words find all HTML elements that are enclosed by any tag with an attribute class=“warning”.

CSS Selectors: By ID

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Example

```
#demo {  
    color : red;  
}
```

The # sign is required anytime you do selection by ID.

Anytime you see a #, it is selection by id!

A valid HTML element type is used, in the example to the left, the DIV type.

What this code does: Finds all HTML elements that have an attribute id="demo" and apply the format.

CSS Selectors: ID takes precedence over Class

Example

```
#demo {  
    color : red;  
}  
  
.someId {  
    color: blue;  
}
```

If there is a HTML element has both an id of someId and a class of demo it will appear blue.

```
<p id= "demo" class=  
"someId">...</p>
```

The Id attribute takes precedence over the class attribute.

CSS Descendant Selector

Consider the following CSS & HTML code:

```
div p {  
    color: blue;  
}
```

```
<div id="container">  
  <p>1</p>  
  <span>  
    <p>1.1</p>  
  </span>  
  <p>2</p>  
  <p>3</p>  
</div>
```

1

1.1

2

3

CSS Child Selector

Consider the following CSS & HTML code:

```
div > p {  
    color: blue;  
}
```

```
<div id="container">  
  <p>1</p>  
  <span>  
    <p>1.1</p>  
  </span>  
  <p>2</p>  
  <p>3</p>  
</div>
```



1

1.1

2

3

CSS Selector by attribute

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Consider the following CSS & HTML code:

```
a[target] {  
    font-size: 30px;  
}
```



[Bing](#)
[Duck Duck Go](#)
[Google](#)

```
<html>  
  <head>  
    <title>A Simple Page</title>  
    <link rel="stylesheet" href="style.css">  
  </head>  
  
  <body>  
    <a href='https://www.bing.com' >Bing</a><br>  
    <a href='https://duckduckgo.com/' target = '_blank'>Duck Duck Go</a><br>  
    <a href='https://www.google.com' >Google</a>  
  </body>  
  
</html>
```

Note that there are many anchor tags, but only the one with a target attributed was affected.

Let's write some code!

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CSS Variables

```
:root {  
  --main-bg-color: blue;  
}  
  
div p {  
  color: var(--main-bg-color);  
}
```

