

CSS Notes For Students By Geekster



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Web Development Notes

CSS Selectors

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

We can divide CSS selectors into five categories:

- 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)

The CSS element Selector

The element selector selects HTML elements based on the element name.

Here, all <p> elements on the page will be centre-aligned, with a red text colour:

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

The 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.

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

```
}
```

The 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.

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

The CSS Universal Selector

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

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

The CSS Grouping Selector

The grouping selector selects all the HTML elements with the same style definitions.

Look at the following CSS code (the h1, h2, and p elements have the same style definitions):

```
h1 {  
  text-align: center;  
  color: red;  
}  
h2 {  
  text-align: center;  
  color: red;  
}  
p {  
  text-align: center;  
  color: red;
```

```
}
```

CSS Properties:

A CSS rule consists of a CSS selector and a set of CSS properties. The CSS selector determines what HTML elements to target with the CSS rule. The CSS properties specify what to style of the targeted HTML elements.

You style HTML elements via CSS properties. Different HTML elements may have different CSS properties you can set. CSS properties can be organised into CSS rules. A CSS rule groups a set of CSS properties together, and applies all properties to the HTML elements matched by the CSS rule. Both CSS properties and CSS rules will be covered in detail in this text.

A CSS *property* styles an aspect of an HTML element. Here are a few examples:

```
<div style="border: 1px solid black; font-size: 18px; "> Style This  
</div>
```

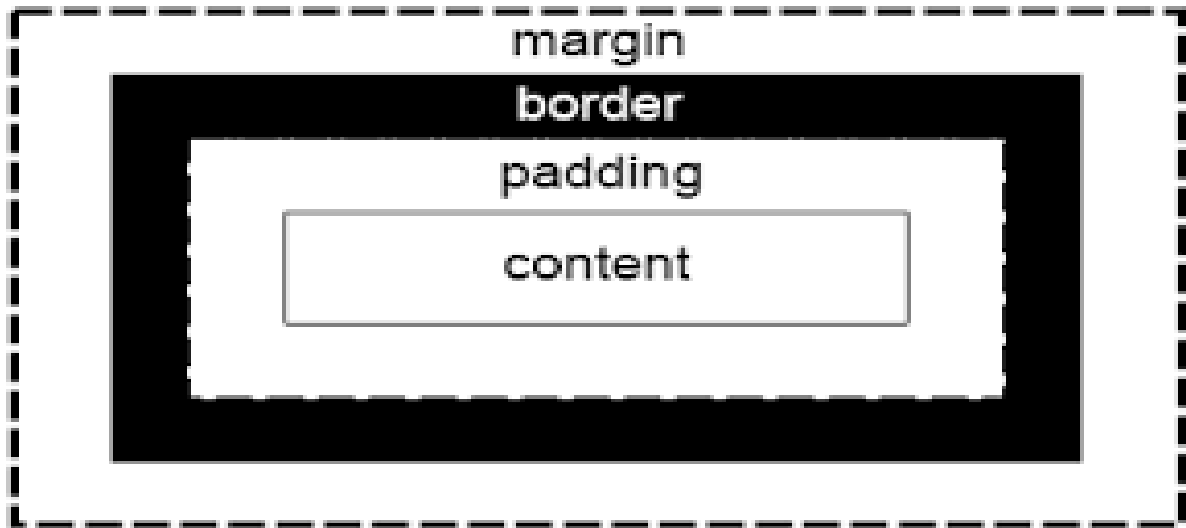
A CSS property declaration consists of a property name and a property value. The property name comes first, then a colon, and then the value. Here is the general pattern a CSS property declaration follows:

```
property-name : property-value
```

The CSS Box Model

In web development, the CSS box model refers to how HTML elements are modelled in browser engines and how the dimensions of those HTML elements are derived from CSS properties. It is a fundamental concept for the composition of HTML webpages.

The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content. The image below illustrates the box model:



Explanation of the different parts:

- Content - The content of the box, where text and images appear
- Padding - Clears an area around the content. The padding is transparent
- Border - A border that goes around the padding and content
- Margin - Clears an area outside the border. The margin is transparent

The box model allows us to add a border around elements, and to define space between elements.

```
div {  
  width: 300px;  
  border: 15px solid green;  
  padding: 50px;  
  margin: 20px;  
}
```

Width and Height of an Element:

In order to set the width and height of an element correctly in all browsers, you need to know how the box model works.

This <div> element will have a total width of 350px:

```
div {  
  width: 320px;  
  padding: 10px;  
  border: 5px solid gray;  
  margin: 0;  
}
```

References:

1. https://www.w3schools.com/css/css_selectors.asp
2. https://www.w3schools.com/cssref/sel_id.asp
3. https://www.w3schools.com/cssref/sel_class.asp
4. https://www.w3schools.com/cssref/sel_element_class.asp
5. https://www.w3schools.com/cssref/sel_element.asp
6. <https://www.w3schools.com/cssref/>
7. https://www.w3schools.com/css/css_boxmodel.asp