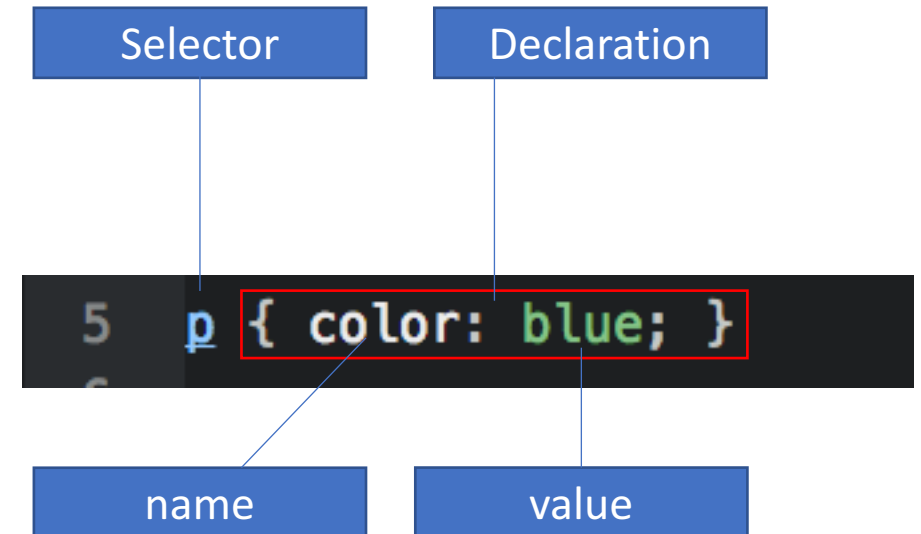# CSS

Cascading Style Sheets Introduction

What is CSS?

- Cascading Style sheets
- A language that describes:
  - HTML styles.
  - How HTML elements should be displayed.

```
1   h1 {
2       color: red;
3   }
4
```

CSS Rules

- A CSS rule consists of a **<u>selector</u>** and a **<u>declaration</u>**
- The selector points to the HTML element you want to style.
- Each declaration includes a CSS **<u>property name</u>** and a **<u>value</u>**, separated by a colon.

Selector   Declaration

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

name   value

CSS Selectors: id

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

- The id of an element should be 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.

```
10   #intro {
11     text-align: center;
12     color: green;
13   }
14
```

The style will be applied to the element with **id="intro"**

CSS Selectors: class

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

```
15   .boxed {
16       background: lightcyan;
17       border: 1px solid black;
18       padding: 10px;
19       text-align: center;
20   }
```

The style will be applied to the element with **class="boxed"**

CSS Declaration

- A CSS rule may have **multiple** declarations.
- A CSS declaration always ends with a **semicolon**, and declaration blocks are **surrounded by curly braces**.

```
5  p { color: blue;
6      font-style: italic;
7      text-transform: capitalize;
8  }
```

External Style Sheet

- With an external style sheet, you can change the look of an entire website by changing just one file!

- Each page must include a reference to the external style sheet file inside the <link> element. The <link> element goes inside the <head> section

```html
1  <!DOCTYPE html>
2  <html>
3  <head>
4    <meta charset="utf-8">
5    <title>Page Title</title>
6    <link rel="stylesheet" href="style.css">
7  </head>
```

Internal Stylesheet

- An internal style sheet may be used if one single page has a unique style.

- Internal styles are defined within the <style> element, inside the <head> section of an HTML page:

```
1  <head>
2  <style>
3  body {
4      background-color: linen;
5  }
6
7  h1 {
8      color: maroon;
9      margin-left: 40px;
10 }
11 </style>
12 </head>
```

Inline Styles

- 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.

- The example below shows how to change the color and the left margin of a <h1> element:

```
1  <h1 style="color:blue;margin-left:30px;">
2     This is a heading
3  </h1>
```

Cascading Order

- What style will be used when there is **more than one** style specified for an HTML element?

- Generally speaking we can say that all the styles will "cascade" into a new "virtual" style sheet by the following rules, where number one has the highest priority:
  - Inline style (inside an HTML element)
  - External and internal style sheets (in the head section)
  - Browser default

- So, an inline style (inside a specific HTML element) has the highest priority, which means that it will override a style defined inside the <head> tag, or in an external style sheet, or a browser default value.

```html
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
<style>
body {background-color: linen;}
</style>
</head>
<body style="background-color: lightcyan">

<h1>Multiple Styles Will Cascade into One</h1>
<p>In this example, the background color is set inline, in an
internal stylesheet, and in an external stylesheet.</p>
<p>Try experimenting by removing styles to see how the
cascading stylesheets work. (try removing the inline first,
then the internal, then the external)</p>

</body>
</html>
```

The CSS File

- An external style sheet can be written in any text editor.
- The file should **not contain** any html tags.
- The style sheet file must be saved with a **.css extension**.

Note: Do not add a space between the property value and the unit (such as `margin-left: 20 px;`). The correct way is: `margin-left: 20px;`