

CSS 3 Introduction



Overview

- CSS 3 overview
- CSS statement
- CSS selector
- CSS declaration
- Inserting CSS into an HTML file

CSS 3 overview

- **Cascading Style Sheets (CSS):**
 - is a set of codes used to specify the appearance of HTML elements
- CSS 3 is the latest revision of the CSS language which aims to bring improvement over CSS 2.1
- CSS is maintained and standardized by W3C (The World Wide Consortium)
 - First released in December 1996

CSS 3 overview (cont.)

- CSS 3 includes new properties for defining the appearance of HTML elements:
 - **Rounded borders**
 - **Shadows**
 - **Gradients**
 - **Transitions**
 - **Animations**
 - **Grid Layout (& Responsive design)**



CSS statement

- A CSS statement (syntax) contains a **selector** and a **declaration**.
- **selector**: indicates the HTML element which will use a given CSS style
- **declaration**: defines the style to be applied on the HTML element

For example:

```
<style>  
  h1 {color: blue;}  
</style>
```

Selector

h1

Declaration

{color:blue; }

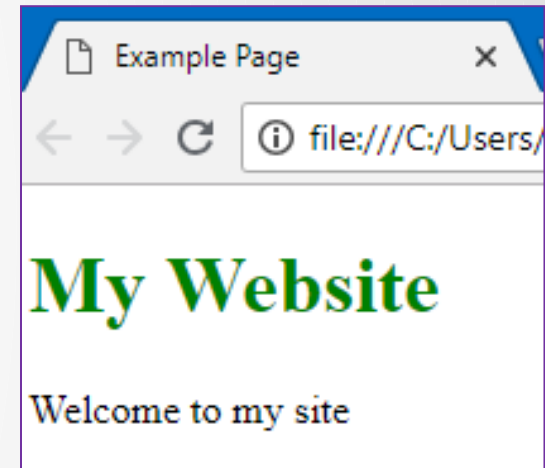


CSS statement (cont.)

- CSS statement example
 - (**selector** and **declaration** example)

```
<style>
  h1 {color: green;}
</style>
```

HTML file, CSS code



Web browser

- In the example, only the **h1 elements** will be affected by the CSS style
- (the **p (paragraph)** element retains the default color (black))

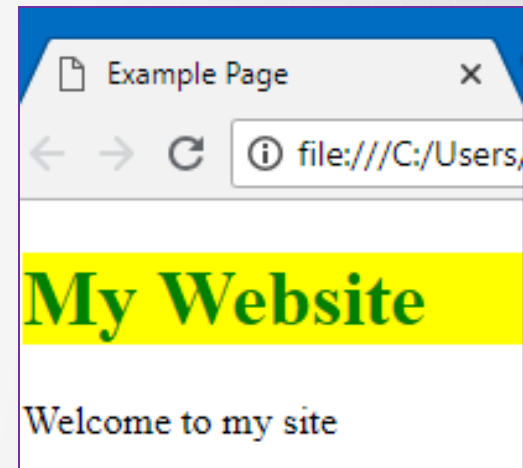
CSS statement (cont.)

- a CSS statement can include **more than 1 declaration**

For example:

```
<style>
  h1
  {
    color: green;
    background-color: yellow;
  }
</style>
```

HTML file, CSS code



Web browser

- Note: the section within the curly-brackets is called a **declaration block**

CSS selector

- indicates the HTML element which uses the style
- 3 main types of CSS selectors:
 1. **HTML** selector
 2. **Class** selector
 3. **ID** selector



CSS selector (cont.)

- **HTML selector:**
 - Represents an HTML tag such that the style will be applied to all instances of that HTML tag, throughout the HTML file

For example:

```
<style>
  h2 , p
  {
    color: blue;
  }
</style>
```

- Note: multiple selectors can be placed in the same CSS statement, separated by a **comma**

- In the example, every **h2 element** and every **p element** will be affected by this CSS style (throughout the HTML file)

CSS selector (cont.)

- **Class selector:**
 - Represents a specific group of elements which use the **class** attribute

For
example:

```
<style>
    .top
    {
        color: blue;
    }
</style>

<p class="top"> My content </p>
```

- Class selector begins with a **full stop**
- (an HTML selector matches an HTML tag name.)
- Whereas a class selector name can be chosen by the web designer)

- In the example, only elements with the **class** attribute and the value **“top”**, will be affected by the CSS style.
- The HTML **class attribute** value and the CSS **class selector** name have to match
- In HTML 5, the **class attribute** can be used on any element



CSS selector (cont.)

- **ID selector:**
 - Represents a specific group of elements which use the **ID** attribute

For example:

```
<style>
  #top2
  {
    color: blue;
  }
</style>

<p id="top2"> My content </p>
```

- ID selector begins with a **hashtag (#)**

- In the example, only elements with the **id** attribute and the value "**top2**", will be affected by the CSS style.
- The HTML **id attribute** value and the CSS **id selector** name have to match
- In HTML5, the **id attribute** can be used on any element



CSS selector (cont.)

- **Class selector** and **ID selector** difference:
 - ID selector can only be used to style exactly one element, whereas a class selector can be used to style multiple elements

For example:

```
<style>
  #bottom { color: blue; }
  #top {color: red;}

  .section2 {color: green;}
</style>

<p id="bottom"> My content </p>

<p class="section2"> Paragraph 2 </p>
<p class="section2"> Paragraph 3 </p>
```

Only 1 element can use this style

Only 1 element can use this style

Multiple elements can use this style



CSS selector (cont.)

- **Quick exercise:**
- Identify why the following CSS style will not affect the **p** (paragraph) element?

```
<style>
  #section1
  {
    color: blue;
  }
</style>

<p id="section2"> My content </p>
```

CSS, ID selector

- HTML, paragraph element



CSS declaration

- A CSS **declaration** contains 2 components:

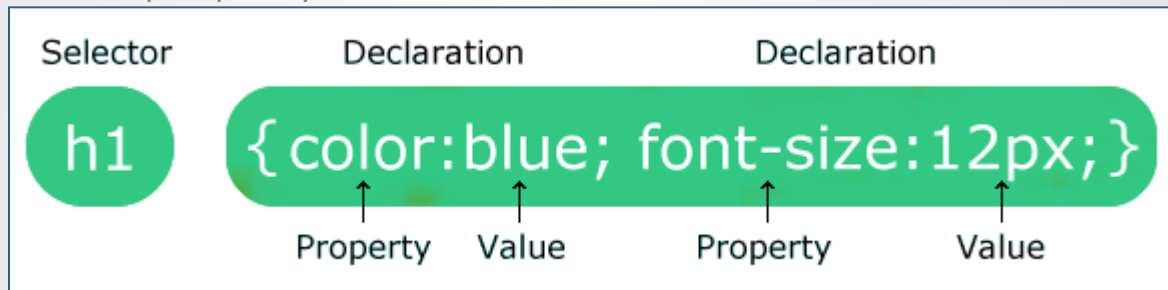
1. **Property**

- indicates the type of visual change that will be applied to the HTML element
- e.g. **color**, **font-size**, **width**

2. **Value**

- code that influences the visual appearance of the HTML element, based on an associated property

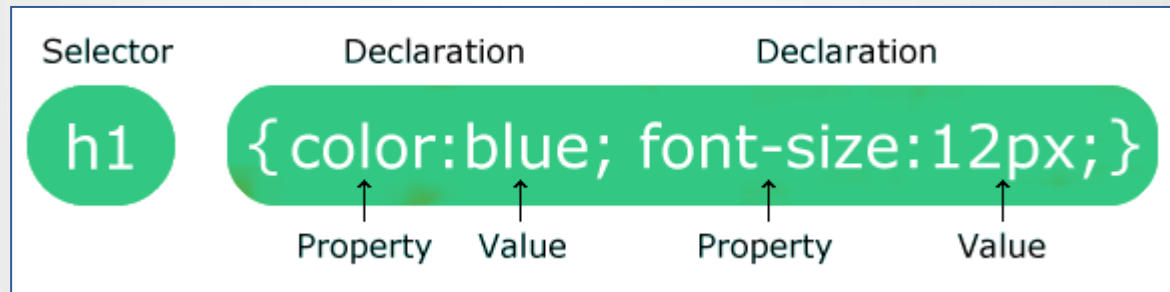
For example:



- Note: each declaration in a **declaration block** has to be separated by a **semicolon (;)** symbol

CSS declaration (cont.)

- CSS declaration:
 - Note: CSS property names are specified within the CSS standard by W3C (the web designer cannot generate and use their own property names)
 - e.g. **color** is a CSS property name from W3C



Inserting CSS into an HTML file

- There are **3** ways of inserting CSS into an HTML file
 - **External style sheet**
 - **Internal style sheet**
 - **Inline style**

Inserting CSS into an HTML file(cont.)

- **1) External style sheet**
- Uses a <link> element to include an external CSS file in an HTML web page.
- A <link> element has to be included within the <head> element of an HTML file

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



Inserting CSS into an HTML file(cont.)

- **2) Internal style sheet**
- Uses a `<style>` element to include CSS text within the HTML file
- For example:

```
1  <!DOCTYPE html>
2
3  <style>
4    p {text-align:center;}
5  </style>
6
7  <body>
8    <p> Main example: </p>
9  </body>
10
11 </html>|
12
```

CSS statement



Inserting CSS into an HTML file(cont.)

- **3) Inline style**
- Uses a style **attribute** within an HTML element to include CSS to that HTML element specifically

```
<div style="background-color:lightgray; width:100px;">  
  <p style="color:blue; font-size:15px;"> Inline style example </p>  
</div>
```

