

VIA University College



# Web Development 1

Basic CSS

# Agenda

- Recap
- Introduction to CSS
- Types of styling
- CSS Syntax
- Class and ID selectors
- `<div>` and `<span>` elements
- CSS Box

# What is CSS?

- CSS is an acronym for **C**ascading **S**tyle **S**heets
- CSS is a style language that defines appearance of HTML documents
- **HTML** is used to **structure** content
- **CSS** is used for **styling** structured content

# CSS Example

```
h1 {  
    color:blue;  
}  
  
h2 {  
    font-style: italic;  
}  
  
h3 {  
    font-family: monospace;  
    background-color: aqua;  
}  
  
li {  
    margin-top: 15px;  
}
```

# Types of styling

- Inline Styles

- Configured in the body of the Web page
- Use the `style` attribute of an HTML tag
- Apply only to the specific element'

- Embedded Styles

- Configured in the head section of a Web page.
- Use the HTML `<style>` element
- Apply to the entire Web page document

- External Styles/Imported styles

- Configured in a separate text file with .css file extension
- The HTML `<link />` element in the head section of a Web page associates it with the .css file

# Inline Styling

- An inline CSS is used to apply a unique style to a single HTML element
- Can quickly become difficult to maintain

```
<h1 style "color:blue;">Blue Heading</h1>  
<p style "color:red;">A red paragraph.</p>
```

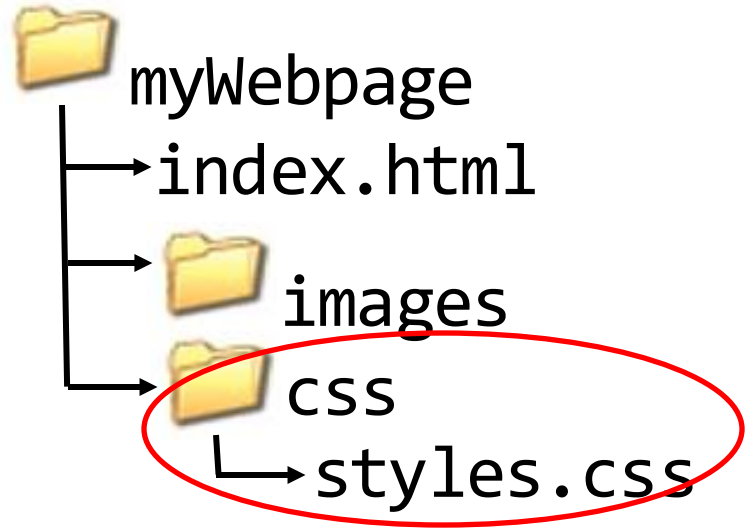
# Embedded Styling

- Defined in header
- Can lead to bloated header

```
<head>
  <title>Some page title</title>
  <style type="text/css">
    body {
      background-image: url("background.jpg");
      color: #FFFFFF;
    }
    h1 {
      background-color: #cccccc;
      color: #FF0000;
    }
  </style>
</head>
```

## External Styling

- Separate file(s) with the .css extension
- Often placed in dedicated subdirectory
- Linked from the header of document
- Easy to maintain, no bloat



```
<head>
<title>Some page title</title>
<link href="css/styles.css" type="text/css" rel="stylesheet" />
</head>
```



# CSS Syntax

```
* {  
  font-size: 1.2em;  
}  
  
body {  
  background-image: url("background.jpg");  
  color: #FFFFFF;  
}  
  
h1 {  
  background-color: #cccccc;  
  color: #FF0000;  
}
```

# CSS Syntax

```
* {  
  font-size: 1.2em;  
}  
  
body {  
  background-image: url("background.jpg");  
  color: #FFFFFF;  
}  
  
h1 {  
  background-color: #cccccc;  
  color: #FF0000;  
}
```

Selectors



# CSS Syntax

```
* {  
  font-size: 1.2em;  
}  
  
body {  
  background-image: url("background.jpg");  
  color: #FFFFFF;  
}  
  
h1 {  
  background-color: #cccccc;  
  color: #FF0000;  
}
```

Properties



The diagram illustrates the concept of CSS properties. A box on the right labeled 'Properties' has four red arrows pointing to specific parts of the CSS code on the left. The arrows originate from the box and point to the values of four different properties: '1.2em' in the 'font-size' rule, 'url(\"background.jpg\")' in the 'background-image' rule, '#FFFFFF' in the 'color' rule for the 'body' selector, and '#cccccc' in the 'background-color' rule for the 'h1' selector. This visualizes that these values are the actual properties being applied in the CSS rules.

# CSS Syntax

```
* {  
  font-size: 1.2em;  
}  
  
body {  
  background-image: url("background.jpg");  
  color: #FFFFFF;  
}  
  
h1 {  
  background-color: #cccccc;  
  color: #FF0000;  
}
```

Values



# Selectors

- Defines the elements that the styling applies to
- There are MANY selectors, some very advanced
- Common ones:
  - `* {...}` Style applies to all elements.
  - `body {...}` Style applies to all elements within body.
  - `div {...}` Style applies to all divisions and elements within.
  - `.myClass {...}` Style applies to all elements with the given class name.
  - `#myId {...}` Style applies to the element with the unique id.

# Class and ID selectors

- Class

- Applies a CSS rule to a certain "class" of elements on a Webpage
- Does not associate the style to a particular HTML element
- Configure with `.classname` in CSS file
- Use when multiple elements should have same rules applied to them

- ID

- A class name can be used by multiple HTML elements, while an id name must only be used by one
- The most specific CSS selector!
- Configure with `#idName` in CSS file
- Use when a single element should have a rule applied to it

## ID example

```
<body>  
  <p>This is an ordinary paragraph</p>  
  <p id="myId">This is a paragraph with a different style</p>  
</body>
```

```
#myId {  
  color: #0000FF;  
  background-color: lemonchiffon;  
  width: 100px;  
  height: 100px;  
}
```

## Class example

```
<body>
  <div>
    <p>This is an ordinary paragraph</p>
    <p class="myClass">This is a paragraph with the myClass style</p>
  </div>
</body>
```

```
div {
  height: 300px;
  width: 400px;
  background-color: #EE3E80;
}

.myClass {
  background-color: #CCCCCC;
}

p.myClass {
  color: #FF0000;
}
```



## <div> and <span> elements

- What if there's no "natural" tag (<p>, <h1>...)?
- You can use <div> or <span>
- <div> is for block/paragraph-like selections
- <span> is for parts of text like <i>...</i>
- Examples:
  - <div id="myId">All Inside a division.</div>
  - This is only<span class="myClass">a part of the text</span>

# “Cascading” Style Sheet

- CSS – **Cascading** Style Sheets
- Styling cascades (is carried through to sub-elements)

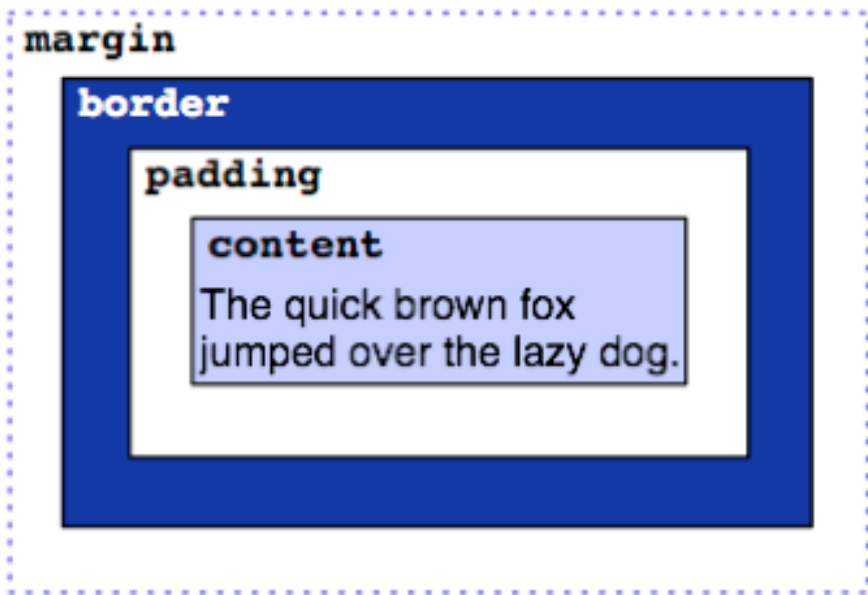
```
* {font-family: Arial, sans-serif;}
```

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

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

```
#myId {border: solid, 10px;}
```

# CSS Box



Configure empty space around the content

**padding:** 20px 80px 10px 40px  
                  top      right  bottom  left

Configure visible borders around the element

**border:** 10px 5px 10px 200px  
                  top      right  bottom  left

Configure transparent space around the border

**margin:** 10px 5px 10px 200px  
                  top      right  bottom  left