

# Web Development with HTML&CSS: Publish Your Own Website in a Week!

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# What we will covered yesterday

- ▶ More structural tags
- ▶ HTML tags with attributes
- ▶ Types of HTML tags and nesting rules
- ▶ Void elements
- ▶ Metadata elements
- ▶ HTML validation

# What we will cover today

- ▶ Basics of CSS
- ▶ Types of CSS styles
- ▶ Identification tags in HTML
- ▶ CSS selectors
- ▶ Cascading styles

## Get ready

- ▶ From the last two lessons, you should now have a basic webpage developed in JSFiddle.
- ▶ Please re-open your JSFiddle project. If you are unable to find it, click your user avatar in the top right corner and click "Your fiddles."

# What is CSS?

- ▶ CSS stands for "Cascading Style Sheets."
- ▶ It allows us to style webpages consistently.
- ▶ For example, we can set the color of text, etc.

# Where does CSS belong?

1. Inline styles
2. In the `<head>`
3. In a separate file

# Introduction to inline styles

- ▶ Inline styles allow for a single element to be styled
- ▶ The style is placed in the `style` attribute
- ▶ Not good practice for styling multiple elements: duplication

```
<p style="color: red;">Red text</p>
```

# Anatomy of a CSS rule

- ▶ Each rule is in the format `property-name: value;`
- ▶ `property-name` refers to what we are trying to change (i.e. color)
- ▶ `value` is what we are changing the property to (i.e. red)
- ▶ Rules are separated by semicolons



# Styles in the head or separate file

- ▶ In the `<head>` the `<style>` element is used.
- ▶ In JSFiddle, a separate file can also be used through the CSS panel.
- ▶ In both types, CSS rulesets are used so the browser knows what element we are referring to.

# Anatomy of a ruleset

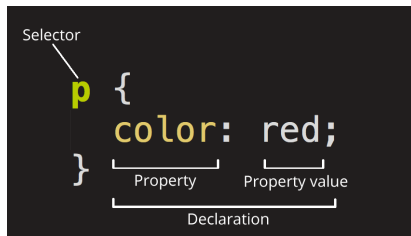


Figure: Parts of a ruleset (MDN)

# Colors in CSS

- ▶ Foreground (text) color: `color`
- ▶ Background (highlight) color: `background-color`
- ▶ Colors are specified in 3 ways: named colors, hex value, RGB value
- ▶ Named colors include red, green, etc
- ▶ Complete list of named colors at <https://developer.mozilla.org/en-US/docs/Web/CSS/named-color>
- ▶ The colors are in American English

# Hex and RGB colors

- ▶ For more precise control over colors, Hex and RGB are used.
- ▶ These allow control over how much red, green, and blue are in the desired color
- ▶ Color pickers can be used such as [rgbcolorpicker.com](http://rgbcolorpicker.com)

# Text styling

- ▶ font-family specifies the font that is used
- ▶ The default generic fonts are serif, sans-serif, monospace, cursive, and fantasy
- ▶ For the generic fonts, the browser selects an available font on the computer.
- ▶ The font-size property defines the size of the text



# Absolute units of length

- ▶ In CSS properties such as `font-size` and many others, we need to specify a specific size.
- ▶ Place the unit immediately after the number (i.e. `20px`)
- ▶ The most common absolute unit is `px` or pixel
- ▶ Absolute units are not recommended for responsive design (mobile-friendliness)

# The em and rem units

- ▶ `em` refers to 1 default font size of the element
- ▶ For example, if the font size of a `<p>` is set to `2em`, then the font size will be double that of a regular paragraph.
- ▶ `rem` refers to 1 default font size of the root element
- ▶ This means that `2rem` on an `<h1>` element and `2rem` on an `<p>` element have the same output.

# ID in HTML and CSS

- ▶ Currently we can refer to all `<p>` elements or all `<h1>` elements and change their color or font size
- ▶ In order to change only some of the elements, selectors are used.
- ▶ The `id` attribute allows for isolation of a specific element for CSS.
- ▶ For example, in HTML,  
`<p id="myParagraph">some text</p>` has ID of "myParagraph"
- ▶ We can now refer to this element in CSS as `#myParagraph`
- ▶ Two elements cannot share IDs



# Referring to multiple elements

- ▶ If ID cannot be used for multiple elements, what if we want to change the style of many elements, but not all, at once?
- ▶ The `class` attribute is used to do this.
- ▶ One element can have multiple classes, separated by spaces.
- ▶ Multiple elements can have the same class.
- ▶ To refer to a class in CSS, use `.nameOfClass`

# Multiple selectors

- ▶ If we want to select multiple things (i.e. both `<p>` and `<h3>` elements, separate the selectors with a comma.
- ▶ This can be done with all types of selectors, including class and id

```
p,h1,h2 {  
    color: red;  
}
```

# The span and div elements

- ▶ Sometimes we may want to only style a portion of a line of text, or a section of the page
- ▶ These elements are used in conjunction with `id`, `class`, or `style` to refer to them in CSS
- ▶ `<span>` is an inline element
- ▶ `<div>` is a block element
- ▶ These elements do not make any difference to the display without custom CSS

# The border properties

- ▶ The border property comes in 5 styles: border, border-left, border-right, border-top, border-bottom
- ▶ The structure of the value is the same: width style color

```
#myDiv {  
    border: 5px solid green;  
}
```

# Pseudo-classes

- ▶ Sometimes we want to apply a style to an element only when the user is hovering over it
- ▶ For this, we use the `:hover` pseudo-class.
- ▶ We put this at the end of the selector
- ▶ The below example shows highlighting links in red when hovering over them.
- ▶ The same can be done for visited links using `:visited`

```
a:hover {  
    background-color: red;  
}
```

# Thank you!

Tomorrow, we will delve further CSS and how we can structure our webpage visually.

Please leave feedback to let me know how I'm doing!