

Web Design

Intro to CSS

Cascading Style Sheets (CSS)

- Style sheet language, introduced in 1996
- Allows for styling web pages
 - separation of content (HTML) and style (CSS)

Try It

- Create an HTML file put some filler content in it
- Add the following code to the HTML <head> element:

```
<style>
  body {
    background-color:  lightcoral;
  }
</style>
```

CSS Overview

What's possible with CSS

- Coloring, Borders, Shadows
- Spacing
- Sizing
- Positioning
- Layout
- Animation

Adding CSS

How to Add CSS

- Inline

```
<div style="background-color:  red;">  
  This will have a red background  
</div>
```

How to Add CSS

- Internal

```
<style>
  div {
    background-color: red;
  }
</style>
```

How to Add CSS

- External

```
<link rel="stylesheet" href="styles.css">
```

CSS Anatomy

CSS Anatomy

- CSS is composed of rules, rules are composed of:
 - Selectors
 - Properties
 - Values

CSS Selectors

- Selectors let us specify which elements we want to style
- Styles will apply to **all** elements that meet the selector's criteria

```
h1 {  
    font-family: sans-serif;  
}  
  
div {  
    background-color: red;  
}  
  
section h2 {  
    text-decoration: underline;  
}
```

CSS Properties

- Properties are the parts of the elements' styling we want to control

```
h1 {  
  font-family: sans-serif;  
}  
  
div {  
  background-color: red;  
}  
  
section h2 {  
  text-decoration: underline;  
}
```

CSS Values

- Values are assigned to properties
- Different properties accept different types of values

```
h1 {  
  font-family: sans-serif;  
}  
  
div {  
  background-color:  red;  
}  
  
section h2 {  
  text-decoration: underline;  
}
```

Examples

Styling Text

- color
- font-size
- font-family
- text-align
- text-transform
- text-decoration
- External font imports
 - require both a `<link>` (to download the font file) and setting the font-family property

Styling Elements

- background-color
- border
- box-shadow
- width, height

CSS Units

CSS Units

- Different properties use different units
- Common/simple units include: length and color

```
body {  
  /* Colors: */  
  color:  black;  
  background-color:  #b0b0b0;  
  border-color:  rgb(255, 0, 0);  
  
  /* Lengths: */  
  width: 50vw;  
  height: 100%;  
  padding: 1rem;  
  margin: 50px;  
}
```

Shorthand Properties

Shorthand Properties

- Some related properties can be grouped together in a single property

```
div {  
  border-width: 2px;  
  border-style: solid;  
  border-color: black;  
}
```

```
div {  
  border: 2px solid black;  
}
```

Try It

- Add some styling to the page you created at the beginning
- Change the font-size of the headings
- Change the background-color of the sections
- Add a border to the paragraphs

Font Families

Font Families

- Change the font of an element with the `font-family` property
- Built-in (generic) values:
 - serif, sans-serif, cursive, system-ui, fantasy, monospace
- Specific fonts:
 - Georgia, “Gill Sans”, Helvetica

Font Families

Importing Fonts

- In order for a font to be viewed by the user, it must be installed on their computer
- To make sure the user will have the font, we can import the font for them
- And it's a good idea to provide a fallback in case the font fails to load

```
<link href="https://fonts.googleapis.com/css2?family=Monoton&display=swap" rel="stylesheet">
```

```
h1 {  
  font-family: 'Monoton', cursive;  
}
```

Font Families

Importing Fonts

- Places to get fonts for the web:
 - fonts.google.com
 - fonts.adobe.com (if you have an account)

Background Image

Background Image

- We can set the background of an element to be an image with the `background-image` property
- Can control the image sizing and positioning with a few other properties

```
section.hero {  
    background-image: url("hero-image.png");  
    background-size: cover;  
    background-repeat: no-repeat;  
}
```

Tools

Browser Developer Tools

- Allow you to see the page and its code together and see actively applied styles
- In Chrome: (...) > More Tools > Developer Tools
 - For other browsers, just search “[browser name] developer tools”

