CSS

Making your websites look awesome

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Course

Learn CSS

Learn how to style and visually organize HTML with CSS. This course covers versi

77%

A long time ago in an internet far far away…

History of CSS

HTML was created to **describe the content** of a web page, like:

```
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
```

When tags like <font>, and **color** attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. Large websites, where fonts and color information were added to every page, became very difficult to create and manage.

History of CSS

The Solution?

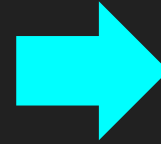the World Wide Web Consortium (W3C) created **CSS**.

CSS removed the style formatting from the HTML page and moved it to a separate location!

What is CSS?

- "**C**ascading **S**tyle **S**heets"

- CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**

- CSS **saves a lot of work.** It can control the layout of multiple web pages all at once

HTML handles the CONTENT & STRUCTURE
CSS handles the STYLE

HTML

`</>`

`<html>`

`.css {}`

`{}`

CSS

CSS (combined with javascript) allows
content to be displayed in different ways
depending on the device!

3 Ways to Use CSS

1. External style sheet

CSS is linked to another file (.css) that contains all the style rules in it.

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

Benefits:
- All pages on your website can link to the SAME css file so they can all have the same look and feel.

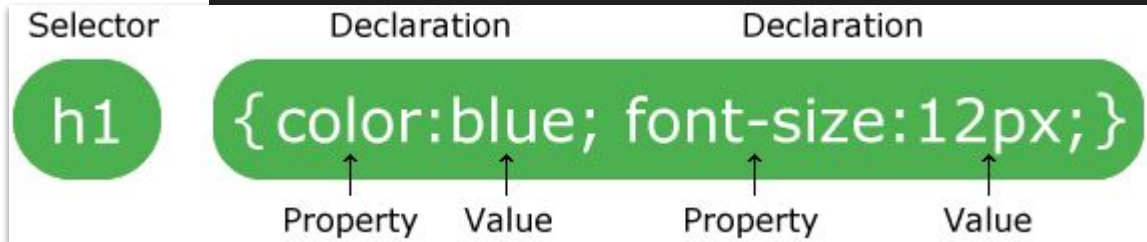- You can make changes to the CSS without needing to update the HTML.

What does an external style sheet look like?

```css
body {

    background-color: lightblue;

}

h1 {

    color: navy;

    margin-left: 20px;

}
```

Saved as "filename.css"

Linked to the HTML using the <link> tag inside the <head>

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

Selector: h1   Declaration: { color:blue;   Declaration: font-size:12px;}
Property   Value   Property   Value

3 Ways to Use CSS

2. Internal style element

CSS is written directly in the <head> as a <style> element.

```
<head>
<title>Oranges are Great</title>
<style>
    h1 {
        color: orange;
    }
</style>
</head>
```

Not recommended unless you are creating a very small website.

3. Inline style attributes

styles are written as ATTRIBUTES inside each element:

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

- Inline styles will take precedence over external CSS styles.

- This is useful when you want to have exceptions to your general rules in some places on your website.

- Also useful when you have only a few elements and styles.

3 Ways to Use CSS

1. External Style Sheet — The best way.

2. Internal Style Element

3. Inline Style

It's so beautiful!

Take a look at this demo from w3schools

https://www.w3schools.com/css/css_intro.asp

What do you notice when you click the different links?
(Stylesheet 1, Stylesheet 2, etc.)

CSS Challenge: One Page, Many Styles

Part 1

Create 1 HTML page. The contents of the page should be everything about a travel destination (as follows):

- ❏ 1 heading <h1> "Name of Place"
- ❏ 1 subheading <h2> "#1 Travel Destination"
- ❏ A Paragraph describing what your place is.
- ❏ 3 Pictures of your travel destination.
- ❏ 1 subheading <h3> "Why it is #1?"
- ❏ A Paragraph describing why you like it.
- ❏ 1 subheading <h3> "Top 5 things to do in _____"
- ❏ An unordered list of activities
- ❏ A link to a website / video showing more information about your destination:
  Name of link

Part 2

Create 3 external .CSS files that style your HTML page in different ways:

- ❏ Different bgcolor
- ❏ At least 1 CSS: a bgimage
- ❏ Different font families / fonts.
- ❏ Different font sizes
- ❏ Different font colors for h & p
- ❏ Different margins & padding

You will need to show the teacher how to switch between the 3 styles.

CSS Challenge Assessment

	R	1	2	3	4
App Use of HTML and CSS Techniques	Web page(s) are clearly incomplete and missing nearly all requirements.	Web page(s) missing many requirements. The work may be Incomplete or have parts that are incorrectly coded.	Web page(s) only missing 1 or 2 requirements. Most things work as intended.	Web page(s) include all requirements and present information effectively;	Web page(s) are creative and well designed, including more than the minimum requirements and clearly demonstrating a high level of understanding of web design.
Comm	Can't answer ANY questions.	Has difficulty answering questions	Can answer some questions. Needs hints	Can answer most questions about your work and uses proper vocabulary with minimal hints.	Can answer all questions very effectively without any hints or prompting.

For this activity, when you check in with the teacher you will be asked questions. These questions could include but are not limited to asking you to point to specific styles, showing which code controls certain styles, or showing how to switch CSS styles.

Common CSS Styles

Take a look at the following pages for some common CSS

Setting Fonts using Font-Family

https://www.w3schools.com/cssref/css_websafe_fonts.asp

A **font-family** property describes a group of fonts used to style an element.

It is described using the following syntax:

```
font-family: Arial, Helvetica, sans-serif;
```

        or

```
font-family: 'Comic Sans MS', cursive, sans-serif;
(use '...' if the font's name has more than 1 word in it)
```
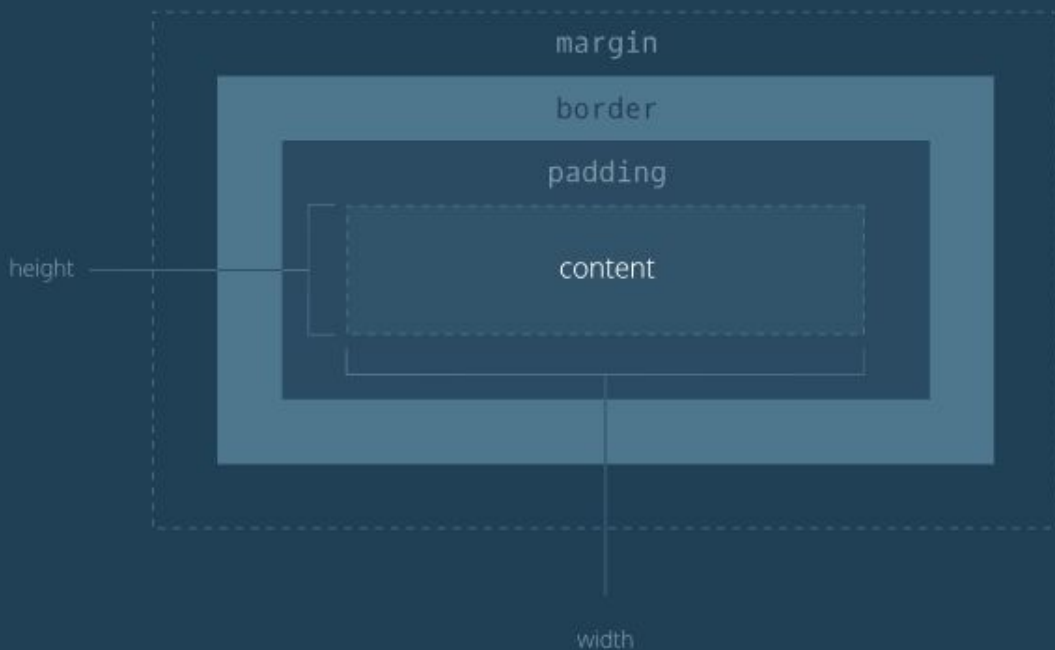
Controlling Margins and Padding

https://www.htmldog.com/guides/css/beginner/margins/

Margin is the space outside of a container. **Padding** is the space inside the container.

You can control top, left, right, and bottom margins and paddings independently.

The Box Model

margin

border

padding

content

height

width

CSS Examples of Margins and Padding

```css
padding: 10px; /* sets the padding for all sides to 10 pixels */

margin: 20px; /* sets the margin for all sides to 20 pixels */

margin-top: 0; /* sets the top margin to 0 (no margin) */

margin: 10px 20px 30px 40px;
/* sets [top] [right][bottom][left] margins to different values. */
```

Changing the font color, font-size, and alignment

Use the **color** property to change font color

Use the **font-size** property to change the font size

Use the **text-align** property to change the alignment: left, center, or right

```
h1 {

    color: navy;

    font-size: 20px;

    text-align: center; // can also use left / right

}
```

Font Properties:
https://www.w3schools.com/css/css_font.asp

Text Formatting Properties:
https://www.w3schools.com/css/css_text.asp

Changing the background color

Use the **background-color** property

body {

    background-color: lightblue;

}

Using a background image

Use the **background-image** property

```
body {

    background-image: url("paper.gif");

}
```

Usually it's a good idea to upload your background image and link to it from inside your web server rather than linking to an external image.

Positioning Images

```
img {

    // Centers the image in the middle of the screen.

    display: block;

    margin-left: auto;

    margin-right: auto;

    width: 40%;

}
```

Using HEX codes for colors

Check out this great resource: https://htmlcolorcodes.com/

In general you can use a color NAME (if you know it) or you can use a HEX code.

The HEX code is a sequence of numbers with the "#" character in front of it.

How do HEX codes work?

Three byte hexadecimal numbers (meaning they consist of six digits), with each byte, or pair of characters in the Hex code, representing the intensity of red, green and blue in the color:

#XXXXXX

Common HEX colors

⬛	BLACK	#000000	RGB(0, 0, 0)
🟥	RED	#FF0000	RGB(255, 0, 0)
🟫	MAROON	#800000	RGB(128, 0, 0)
🟨	YELLOW	#FFFF00	RGB(255, 255, 0)
🟫	OLIVE	#808000	RGB(128, 128, 0)
🟩	LIME	#00FF00	RGB(0, 255, 0)
🟩	GREEN	#008000	RGB(0, 128, 0)

CSS EXAMPLE:

```
body {

    background-color: #808000;

}
```