CSS Fundamentals, Responsive Web Design, CSS Icons

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Lecture 2, Week 2

LAST WEEK

- ❏ INSTALLATION OF CODE EDITOR
- ❏ HTML FUNDAMENTALS
- ❏ HTML IMAGES, TABLES & FORMS

TODAY

- ❏ CSS FUNDAMENTALS
- ❏ RESPONSIVE WEB DESIGN
- ❏ CSS ICONS

CSS FUNDAMENTALS

CSS is what's called a Cascading Style Sheet language.

It is used to stylize elements written in a markup language such as HTML.

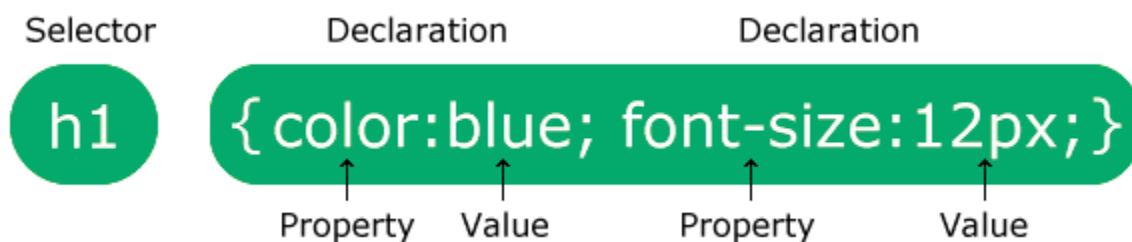CSS describes how HTML elements should be displayed.

The relation between HTML and CSS is strongly tied together.

Since HTML is a markup language (the very foundation of a site) and CSS emphasizes style (all of the aesthetics of a website), they go hand in hand together.

CSS is not technically a necessity, but you probably wouldn't want to look at a site that features only HTML as it would look completely bare-boned.

CSS Syntax

A CSS rule consists of a selector and a declaration block.

The selector points to the HTML element you want to style.

The declaration block contains one or more declarations separated by semicolons.

Each declaration includes a CSS property name and a value, separated by a colon.

Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

SIMPLE CSS SELECTORS

1. Element selector
```css
p {
  text-align: center;
  color: red;
}
```

2. id selector
```css
#para1 {
  text-align: center;
  color: red;
}
```

3. class selector
```css
.center {
  text-align: center;
  color: red;
}
```

4. The universal selector
```css
* {
  text-align: center;
  color: blue;
}
```

HOW TO ADD CSS

There are three ways of inserting a style sheet:

- External CSS
- Internal CSS
- Inline CSS

RESPONSIVE WEB DESIGN

Responsive web design makes your web page look good on all devices.

Responsive web design uses only HTML and CSS.

Web pages can be viewed using many different devices: desktops, tablets, and phones. Your web page should look good, and be easy to use, regardless of the device.

Web pages should not leave out information to fit smaller devices, but rather adapt its content to fit any device.

It is called responsive web design when you use CSS and HTML to resize, hide, shrink, enlarge, or move the content to make it look good on any screen.

THE VIEW PORT

The viewport is the user's visible area of a web page.

The viewport varies with the device, and will be smaller on a mobile phone than on a computer screen.

HTML5 introduced a method to let web designers take control over the viewport, through the `<meta>` tag.

You should include the following `<meta>` viewport element in all your web pages:

```
<meta name="viewport" content="width=device-width,
initial-scale=1.0">
```
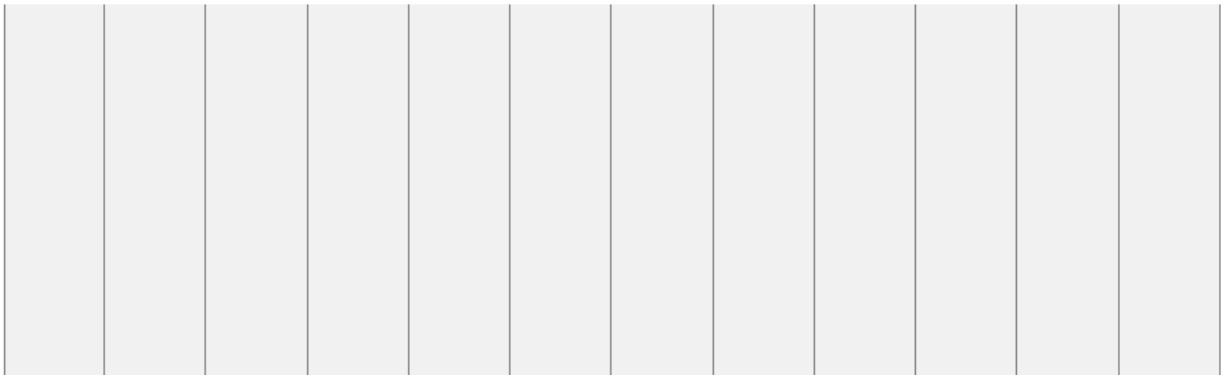
This gives the browser instructions on how to control the page's dimensions and scaling.

The `width=device-width` part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).
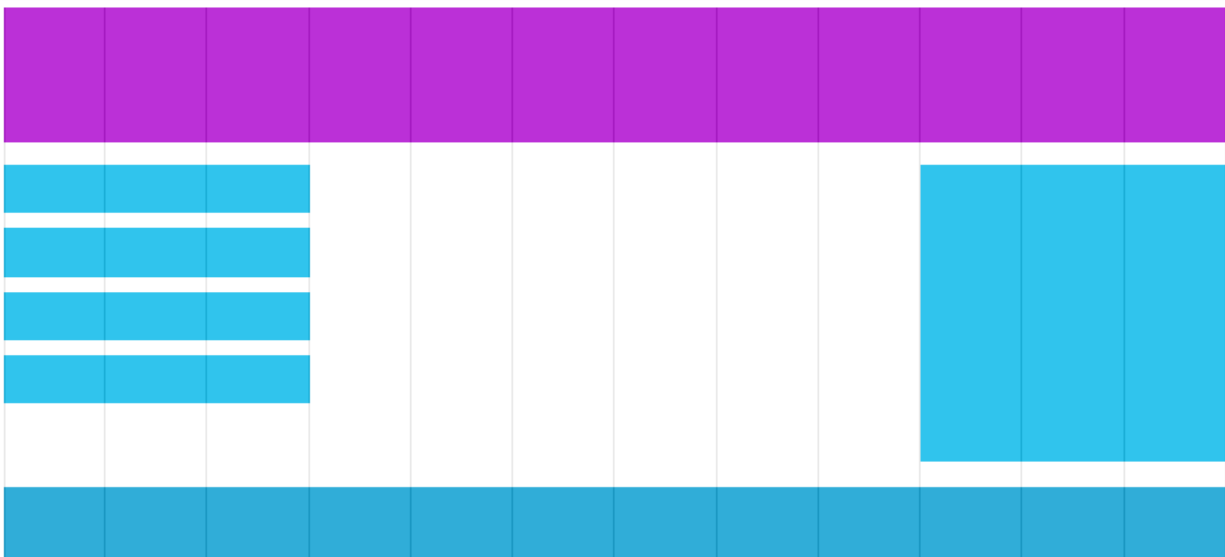
The `initial-scale=1.0` part sets the initial zoom level when the page is first loaded by the browser.

GRID VIEW

Many web pages are based on a grid-view, which means that the page is divided into columns.

Using a grid-view is very helpful when designing web pages. It makes it easier to place elements on the page.

A responsive grid-view often has 12 columns, and has a total width of 100%, and will shrink and expand as you resize the browser window.

To use a responsive grid-view with 12 columns, to have more control over the web page.

First we must calculate the percentage for one column: 100% / 12 columns = 8.33%.

Then we make one class for each of the 12 columns, `class="col-"` and a number defining how many columns the section should span:

```css
.col-1 {width: 8.33%;}

.col-2 {width: 16.66%;}

.col-3 {width: 25%;}

.col-4 {width: 33.33%;}

.col-5 {width: 41.66%;}

.col-6 {width: 50%;}

.col-7 {width: 58.33%;}

.col-8 {width: 66.66%;}

.col-9 {width: 75%;}

.col-10 {width: 83.33%;}

.col-11 {width: 91.66%;}

.col-12 {width: 100%;}
```

MEDIA QUERIES

Media query is a CSS technique used to include a block of CSS properties only if a certain condition is true.

Example

If the browser window is 600px or smaller, the background color will be light blue:

```
@media (max-width: 600px) {

  body {

    background-color: lightblue;

  }

}
```

CSS ICONS

Icons can easily be added to your HTML page, by using an icon library.

The simplest way to add an icon to your HTML page, is with an icon library, such as Font Awesome.

Add the name of the specified icon class to any inline HTML element (like `<i>` or `<span>`).

All the icons in the icon libraries below, are scalable vectors that can be customized with CSS (size, color, shadow, etc.)

To use the Font Awesome icons, go to fontawesome.com, sign in, and get a code to add in the `<head>` section of your HTML page:

```
<script src="https://kit.fontawesome.com/yourcode.js" crossorigin="anonymous"></script>

<!DOCTYPE html>

<html>

<head>

<script src="https://kit.fontawesome.com/a076d05399.js" crossorigin="anonymous"></script>
```

```
</head>

<body>



<i class="fas fa-cloud"></i>

<i class="fas fa-heart"></i>

<i class="fas fa-car"></i>

<i class="fas fa-file"></i>

<i class="fas fa-bars"></i>



</body>

</html>
```

CLASSWORK

1. Open VS Code on your laptop.
2. Go to the file menu at the top, and open the "TWS Web Dev Training" folder you created in the last class.
3. Once it has opened, in the left side bar, right click and select "New Folder".
4. Name the folder "Lesson 2"
5. Expand Lesson 1 folder, right click on "Lesson1.html", select "copy" from the options.
6. Right click on Lesson 2 folder, select "paste" from the options.
7. Right click on Lesson 2 folder again.
8. Select "New file". Name it "styles.css"
9. Inside the syles.css file, do the following:

   (i) Give the body tag a background-color of yellow.

   (ii) Give the heading(s) tag a color of blue.

   (iii) Give the paragraph(s) a font-size of 50px

   (iv) when the screen size is not more than 600px, set the background-color to pink

10. Open the Lesson1.html file that is inside the Lesson 2 folder.
11. Inside the head tag, add a reference to the styles.css file in it by adding:

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

ASSIGNMENT

1. What does CSS stand for?
2. What are the simple CSS Selectors?
3. Add any 10 font awesome icons of your choice to your web page.
4. Go to w3schools.com.css, read more about CSS, Responsive web design, CSS icons and write short notes on what you learn.