

Orange Digital Center – Coddling School

Cuttington University Campus, Suakoko

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Introduction to Web Development

Week-2 Lesson

CSS Basics

CSS Syntax and Selectors

CSS (Cascading Style Sheets) is used to style and layout web pages. It allows you to apply styles to HTML elements and control the layout of multiple web pages all at once.

CSS Syntax

A CSS rule-set consists of a selector, curly braces, and a declaration block:

```
selector {  
  property: value;  
  property: value;  
}
```

- **Selectors:** they are used to target an element on a webpage.
- **Declaration:** is a set of key value pair.

Example

```
body {  
  background-color: #f0f0f0;  
  font-family: Arial, sans-serif;  
}  
h1 {  
  color: 333;  
}
```

Selectors

- **Element Selector:** Selects all elements of a given type.

```
p {  
  color: blue;  
}
```

- **Class Selector:** Selects elements with a specific class attribute.

```
.myClass {  
  font-size: 20px;  
}
```

- **ID Selector:** Selects a single element with a specific ID attribute.

```
#myId {  
  background-color: yellow;  
}
```

- **Attribute Selector:** Selects elements with a specific attribute.

```
input[type="text"] {  
  border: 1px solid #ccc;  
}
```

Styling Text and Layout

Styling Text

- **Font Family:**

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

- **Font Size:**

```
h1 {  
  font-size: 2em;  
}
```

- Font Weight:

```
strong {  
  font-weight: bold;  
}
```

- Color:

```
.highlight {  
  color: red;  
}
```

- Text Alignment

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

Layout

- **Width and Height:**

```
.box {  
  width: 200px;  
  height: 100px;  
}
```

- **Margin and Padding:**

Margin is use to specify the amount of space outside of an element border while padding is use to specify the amount of space inside of an element border.

```
.container {  
  margin: 20px;  
  padding: 10px;  
}
```

- **Border:**

```
.bordered {  
  border: 1px solid 000;  
}
```

Flexbox and Grid

Flexbox

Flexbox is a layout module that provides a more efficient way to lay out, align, and distribute space among items in a container.

Basic Flexbox Example:

```
.container {  
  display: flex;  
  justify-content: space-between;  
  align-items: center;  
}
```

Grid

CSS Grid Layout is a two-dimensional layout system for the web. It allows you to layout items in rows and columns.

Basic Grid Example:

```
.grid-container {  
  display: grid;  
  grid-template-columns: repeat(3, 1fr);  
  gap: 10px;  
}
```

Responsive Design with Media Queries

Media queries are used to apply different styles for different devices or screen sizes.

Example:

```
/ Default styles /
```

```
body {  
  font-size: 16px;  
}
```

```
/ Larger screens /
```

```
@media (min-width: 768px) {  
  body {  
    font-size: 18px;  
  }  
}
```

```
/ Extra large screens /
```

```
@media (min-width: 1200px) {  
  body {  
    font-size: 20px;  
  }  
}
```

Basic CSS Animations and Transitions

Transitions

Transitions provide a way to control the speed of the change of a property.

```
.box {  
  width: 100px;  
  height: 100px;  
  background-color: red;  
  transition: background-color 0.5s ease;  
}
```

```
.box:hover {  
  background-color: blue;  
}
```

Animations

Animations allow the animation of HTML elements.

```
@keyframes example {  
  from {background-color: red;}  
  to {background-color: yellow;}  
}
```



```
.box {  
  width: 100px;  
  height: 100px;  
  background-color: red;  
  animation-name: example;  
  animation-duration: 4s;  
}
```

Chrome Dev Tools

Chrome Dev Tools is a set of web developer tools built directly into the Google Chrome browser.

Accessing Chrome Dev Tools

1. Open Google Chrome.
2. Right-click on any page element and select "Inspect".
3. You can also open Dev Tools by pressing Ctrl+Shift+I (Windows) or Cmd+Opt+I (Mac).

Features

- **Elements Panel:** Inspect and edit HTML and CSS.
- **Console:** Log information as you interact with the page.
- **Network:** Analyze network activity.
- **Performance:** Analyze runtime performance.
- **Sources:** Debug JavaScript code.

Example: Editing CSS in Dev Tools

1. Open Dev Tools and go to the Elements panel.
2. Select the element you want to style.
3. In the Styles pane, you can directly add or modify CSS rules.

References:

1. W3Schools: CSS Tutorial: <https://www.w3schools.com/css/>
2. CSS-Tricks: A Complete Guide to Flexbox: <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>
3. CSS-Tricks: A Complete Guide to Grid: <https://css-tricks.com/snippets/css/complete-guide-grid/>
4. Responsive Web Design - Media Queries:
https://www.w3schools.com/css/css_rwd_mediaqueries.asp
5. CSS-Tricks: Using CSS Transitions: <https://css-tricks.com/almanac/properties/t/transition/>
6. CSS-Tricks: Using CSS Animations: <https://css-tricks.com/almanac/properties/a/animation/>
7. Google Chrome Developer Tools: <https://developer.chrome.com/docs/devtools/>

Week-2 Task:

Style the product landing page created in week-1 using CSS. The end result should look similar to the image in the week2 task PDF document.