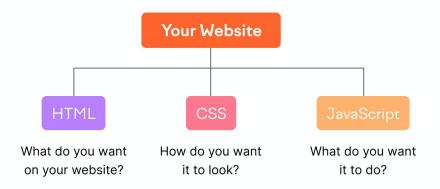
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Week 4: Web Development

1. Revision and Quiz





Flex box Grid Garden CSS Dinner



WHAT'S THE DIFFERENCE?



Create the structure

- · Controls the layout of the content
- · Provides structure for the web page design
- · The fundamental building block of any web page



Stylize the website

- · Applies style to the web page elements
- · Targets various screen sizes to make web pages responsive
- · Primarily handles the «look and feel» of a web page



Increase interactivity

- Adds interactivity to a web page
- · Handles complex functions and features
- · Programmatic code which enhances functionality



2. Transition in CSS

transition transition-delay transition-duration transition-property transition-timing-function

3. Grid

offers a grid-based layout system with rows and columns,

4. Introduction to JavaScript

JavaScript is a programming language used for creating dynamic and interactive web pages.

2.1 Adding JS to Webpage

Create an HTML file: Start by making a new file with a .html extension.

Set up the HTML structure: Write the basic HTML structure with html, head, and <b dots and head, and html, head, and head, and httml, head, and head, and httml, head, and httml, head, and httml, httml, head, and httml, httml, httml, httml, html, httml, httml</a

Add a <script> tag: Inside the <body> section, insert a <script> tag for your JavaScript code.

Write your JavaScript: Between the <script> tags, write your JavaScript code.

console.log("Hey there, let's learn JS ")

Save your HTML file: Save your changes to the HTML file.

Open in a web browser: Double-click the HTML file to open it in your browser.

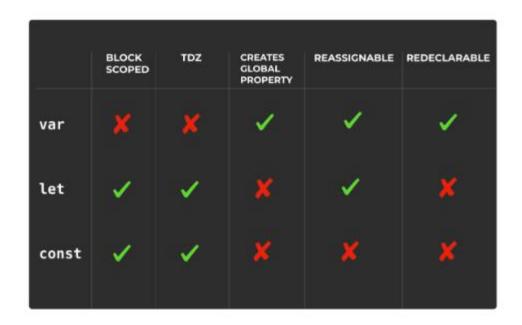
View the console: Use browser developer tools to view JavaScript console output.

Console

console.log("Hello, JavaScript!");

Variables & Const Variables

Variables are used to store data values. In JavaScript, variables can be declared using var, let, or const.



// Variable declaration var age = 25; let name = "John"; const PI = 3.14;

Numbers & Strings

// Numeric and string data types var num = 10; var str = "Hello, world!";

Booleans

// Boolean values var isTrue = true; var isFalse = false;

Type conversion

var numAsString = "10"; var numAsNumber = parseInt(numAsString);

Array

```
var colors = ["red", "green", "blue"];
```

Object

```
var person = {
  name: "John",
  age: 30,
  city: "New York"
};
```

Operators

```
var x = 10;
var y = 5;
var sum = x + y; // Addition
var isGreater = x > y; // Comparison
x++; // Increment
y--; // Decrement
```

Conditional statements

```
var age = 18;
if (age >= 18) {
   console.log("You are an adult.");
} else if (age >= 13 && age < 18) {
   console.log("You are a teenager.");
} else {
   console.log("You are a child.");
}</pre>
```

Switch statement

```
var day = "Monday";
switch (day) {
  case "Monday":
    console.log("It's Monday.");
    break;
  case "Tuesday":
    console.log("It's Tuesday.");
```

```
break;
default:
    console.log("It's neither Monday nor Tuesday.");
}
```

Loops

```
// For loop
for (var i = 0; i < 5; i++) {
    console.log("Iteration " + i);
}

// While loop
var count = 0;
while (count < 5) {
    console.log("Count: " + count);
    count++;
}</pre>
```

Function declaration

```
function greet(name) {
   console.log("Hello, " + name + "!");
}
greet("John");
```

Alert , Confirm, Prompt

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Button Click Alert</title>
</head>
<body>
  <h1>Click the button to see an alert</h1>
  <!-- Button with onclick attribute -->
  <button onclick="showAlert()">Click Me</button>
  <!-- JavaScript code -->
  <script>
    function showAlert() {
       alert("Hello, world!");
  </script>
```

```
</body>
```

Try catch

```
try {
    // Code that may cause an error
    var x = y / 0; // This will cause a division by zero error
} catch (error) {
    // Handle the error
    console.error("An error occurred:", error.message);
}
```

Lab Tasks

Complete the Flex box https://blog.hubspot.com/website/css-transition-vs-animation https://www.w3schools.com/css/css3_transitions.asp