Week 1: Introduction to JavaScript

What is JavaScript?

JavaScript is a scripting language used to create and control dynamic website content.

Where JavaScript runs:

- In the browser (client-side)

- In servers (Node.js)

Example Code:

```
<script>
  console.log('Hello, world!');
</script>
```

Week 2: Variables and Data Types

Variables are used to store data.

Types:

- let (modern)

- const (constant)

- var (older)

Example Code:

```
let name = "John";
const age = 25;
var isStudent = true;
console.log(name, age, isStudent);
```

Week 3: Operators and Expressions

Operators perform operations on values.

Example Code:

```
let a = 10;

let b = 5;

console.log(a + b); // Addition

console.log(a == b); // Comparison
```

Week 4: Control Flow

Used to make decisions.

Example Code:

```
let score = 70;

if(score >= 50){

  console.log("Pass");

} else {

  console.log("Fail");

}
```

Week 5: Loops

Used to repeat actions.

Example Code:

```
for(let i = 0; i < 5; i++){

  console.log(i);

}
```

Week 6: Functions

Functions are blocks of code to perform a task.

Example Code:

```
function greet(name){

  return "Hello " + name;

}
console.log(greet("Alice"));
```

Week 7: Arrays

Arrays store multiple values.

Example Code:

```
let fruits = ["apple", "banana", "mango"];
console.log(fruits[1]); // Outputs "banana"
```

Week 8: Objects

Objects store data in key-value pairs.

Example Code:

```
let person = { name: "John", age: 30 };
console.log(person.name);
```

Week 9: DOM Manipulation

Interact with HTML elements.

Example Code:

```
document.getElementById("myBtn").addEventListener("click", function(){

  alert("Button clicked!");

});
```

Week 10: Final Project

Use all learned concepts to build a mini project.

Example:

Build a Calculator or To-Do List.