# JavaScript Basics: Master JS Fundamentals with Projects

This step-by-step course is designed to help beginners master JavaScript fundamentals through practical projects. By the end of this course, you will have a solid understanding of JavaScript basics and hands-on experience building projects.

#### Step 1: Introduction to JavaScript

Understand what JavaScript is, how it works, and its role in web development. Learn how to include JavaScript in your HTML files.

#### **Step 2: Variables and Data Types**

Learn about variables, data types (string, number, boolean, null, undefined), and how to declare variables using var, let, and const.

#### **Step 3: Operators and Expressions**

Understand arithmetic, assignment, comparison, and logical operators. Learn how to create expressions and evaluate them.

### **Step 4: Control Structures**

Learn conditional statements like if, else if, else, and switch. Understand loops such as for, while, and do-while for repeating tasks.

# **Step 5: Functions**

Learn how to define and invoke functions, function parameters, return values, and the concept of scope.

# **Step 6: Arrays and Objects**

Understand arrays and objects as data structures, how to create and manipulate them, and iterate through array elements.

## **Step 7: DOM Manipulation**

Learn how to access and modify HTML elements using JavaScript through the Document Object Model (DOM).

# **Step 8: Events and Event Handling**

Understand different types of events (click, input, load), and how to attach event listeners to elements.

## **Step 9: Projects**

Build simple projects such as a to-do list app, a calculator, and a dynamic webpage to practice what you've learned.

## **Step 10: Debugging and Best Practices**

Learn basic debugging techniques, using browser developer tools, and best coding practices for writing clean JavaScript code.