

Faysal Aziz

Javascript - Beginner to Intermediate

FA-0496 · 3-day

Software Development

Introduction

This 3-day course covers a wide range of Intermediate JavaScript and jQuery topics, starting with fundamentals like conditional statements and functions and progressing to Intermediate concepts like Promises, async/await, and design patterns. Participants will also work on real-world projects to apply their newfound skills.

Course Duration: 3 Days

Prerequisites

- Familiarity with HTML and CSS.
- A basic understanding of programming concepts (no prior coding experience necessary).
- Comfort using a web browser and a simple text editor.

Learning Outcome:

Upon completing the course, participants will be able to:

- Write and understand fundamental JavaScript code.
- Create interactive web pages with JavaScript and jQuery.
- Utilize variables, data types, and basic operations in JavaScript.
- Implement conditional statements and loops for decision-making and iteration.
- Design and work with functions, including parameter passing and return values.

- Grasp the concept of scope and closures in JavaScript.
- Manipulate arrays and objects to store and retrieve data.
- Implement error handling and debugging techniques.
- Gain a foundational understanding of ES6 features like let, const, and arrow functions.
- Make asynchronous requests to external resources using the Fetch API.
- Apply essential web development concepts in practical projects.
- Effectively use jQuery to select and manipulate HTML elements.
- Enhance user interfaces with animations and event handling.
- Develop a basic level of proficiency in web development using JavaScript and jQuery.

Training outline

1. Day 1

1. Writing your first JavaScript program: "Hello World."
2. Basic operations and expressions.
3. Conditional statements (if, else if, else) and comparisons.
4. The switch statement for multiple conditions.
5. Loops (for, while, do...while) and their applications.
6. Declaring and defining functions.
7. Function parameters and return values.
8. Scope and closures in JavaScript.
9. Working with arrays and objects.
10. Iterating through arrays and objects.

2. Day 2

1. Error handling and debugging techniques.
2. Introduction to ES6 features (let, const, arrow functions).
3. Promises and async/await for managing asynchronous code.
4. Fetch API for making AJAX requests and handling responses.
5. Higher-order functions and functional programming concepts.
6. Closures, currying, and function composition.
7. Debugging techniques using browser developer tools.
8. Error handling strategies and best practices.
9. Working with the DOM in-depth.

10. Exploring the Web Storage API (localStorage and sessionStorage).

3. Day 3

1. The revealing module pattern and the singleton pattern.
2. Using design patterns like Observer and Factory.
3. Creating custom jQuery plugins.
4. Implementing drag-and-drop functionality with jQuery UI.
5. Working with AJAX and JSON data in jQuery.
6. Techniques for optimizing jQuery code and improving website performance.
7. Lazy loading images and improving rendering speed.
8. Implementing responsive design principles with jQuery.
9. Participants work on a complex real-world project that combines JavaScript, jQuery, and other web technologies.