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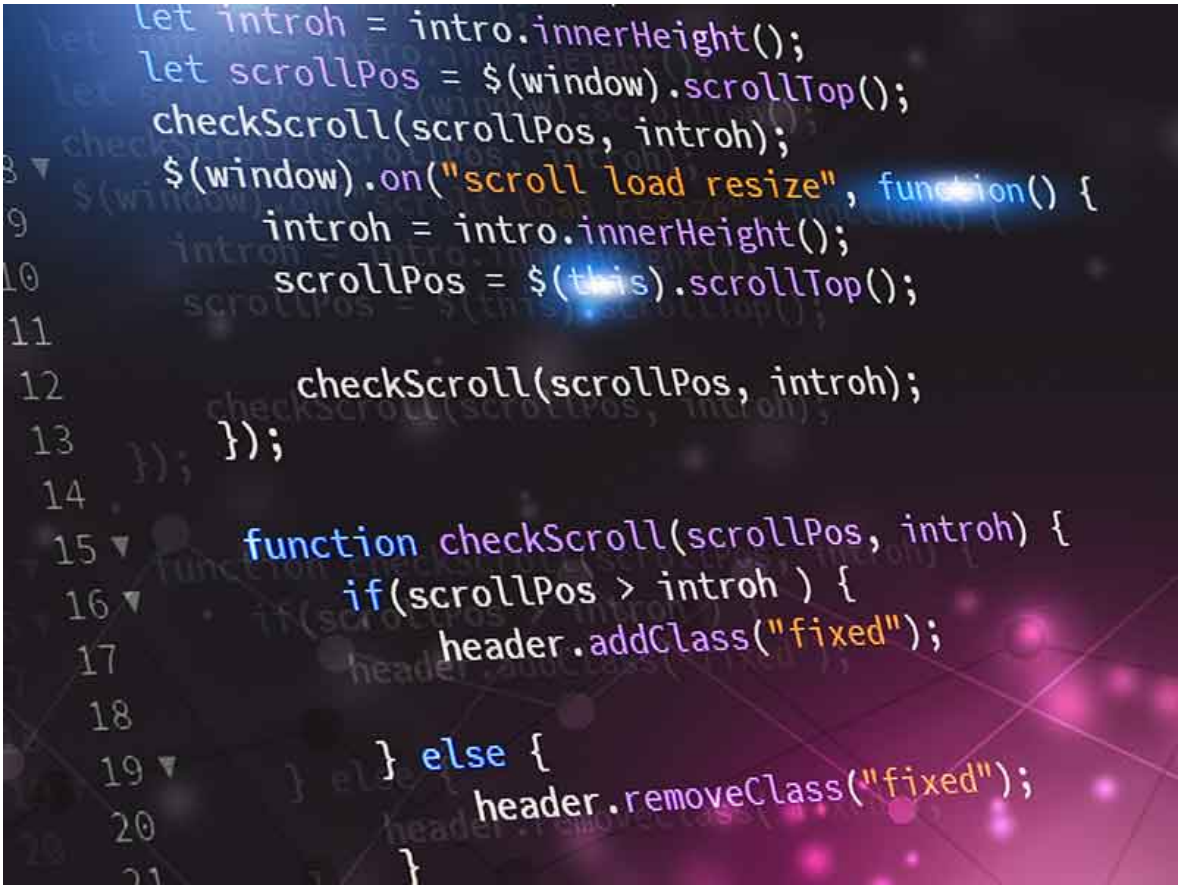
Learning Style: On Demand

Technology:

Difficulty: Beginner

Course Duration: 8 Hours

Fundamentals of Modern JavaScript - ES6 and Beyond



About this Course:

In this course, you will delve into the fundamentals of modern JavaScript, focusing on ES6 and beyond. Topics covered include arrow functions, template literals, destructuring, spread and rest operators, classes, modules, and asynchronous programming with promises and async/await.

Course Objectives:

- **Arrow Functions**: Learn how to write concise and expressive functions using arrow syntax.
- **Template Literals**: Explore string interpolation and multiline strings.
- **Destructuring**: Unpack complex data structures with ease.
- **Spread and Rest Operators**: Understand their applications in function arguments and array manipulation.
- **Classes**: Grasp object-oriented programming in JavaScript.
- **Modules**: Discover how to organize and share code using ES6 modules.
- **Asynchronous Programming**:
    - **Promises**: Handle asynchronous operations more effectively.
    - **async/await**: Write cleaner asynchronous code

Course Outline:

- Course Introduction
- Module 1: Datatypes and Variables
    - Lecture 1: Supporting Materials
    - Lecture 2: First Exercise
    - Lecture 3: Introducing Visual Studio Code
    - Download Visual Studio Code
    - Lecture 4: Second Exercise
    - Lecture 5: Third Exercise
    - Lecture 6: Debugging
    - Lecture 7: Converting
    - Lecture 8: Data Types
    - Lecture 9: Symbol
    - Lecture 10: BigInt
    - Lecture 11: Composite Data Types
    - Lecture 12: Function
    - Lecture 13: Object
    - Lecture 14: Arrays
    - Lecture 15: Set & Map
    - Lecture 16: Coding Challenge (with solution): 01
    - Lecture 17: Coding Challenge (with solution): 02
    - Lecture 18: Coding Challenge (with solution): 03
    - Lecture 19: Coding Challenge (with solution): 04
- Module 2: Sequence, Selection, and Iteration
    - Lecture 1: Introduction
    - Lecture 2: Sequence
    - Lecture 3: Selection: If Else Statements
    - Lecture 4: Selection: If Else Diagram
    - Lecture 5: Selection: If Else Exercise (with solution)
    - Lecture 6: Selection: Logical Operators Exercise
    - Lecture 7: Selection: Switch Statement Exercise
    - Lecture 8: Iteration: Introduction with Diagram
    - Lecture 9: Iteration: While Loop
    - Lecture 10: Iteration: For Loop
    - Lecture 11: Iteration: Do While Loop

    - Lecture 12: Coding challenge
    - Lecture 13: Coding challenge (with solution): 01
    - Lecture 14: Coding challenge (with solution): 02
    - Lecture 15: Coding challenge (with solution): 03
    - Lecture 16: Coding challenge (with solution): 04
- Module 3: Working with Functions in Modern JavaScript
    - Lecture 1: Introduction to functions
    - Lecture 2: Implementing functions: Quadratic Equation Exercise
    - Lecture 3: Recursion function: Factorial Exercise
    - Lecture 4: Destructuring and Spread operator
    - Lecture 5: Application of Destructuring & Spread operator, Rest parameter
    - Lecture 6: Value and Reference Types
    - Lecture 7: Cloning, Shallow Copying & Structured clone
    - Lecture 8: Application 2 of Spread operators
    - Lecture 9: Cloning Exercise
    - Lecture 10: Coding Challenge
    - Lecture 11: Default argument values
    - Lecture 12: Coding Challenge (with solution): 01
    - Lecture 13: Coding Challenge (with solution): 02
    - Lecture 14: Coding Challenge (with solution): 03
    - Lecture 15: Coding Challenge (with solution): 04