



Course Overview

Course Details

Course Name: Vanilla JavaScript: The Absolute Beginner's Guide

Instructor: Jane Smith

Created On: 16 June, 2025

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Price: 3000 INR

Duration: 2 Weeks

Modules: 13

Language: English, Hindi

Level: Beginner

Certifications: Yes

Course Description

Embark on your programming journey with this comprehensive guide to **Vanilla JavaScript**. Designed for absolute beginners, this course lays a rock-solid foundation in the core language concepts, enabling you to bring interactivity and dynamic features to your web pages without relying on complex frameworks.

You will start from the very basics, understanding JavaScript's syntax, operators, and how to define variables and data types. We'll then move into essential control flow statements like `if-else` and loops to build logical programs. A significant portion of the course focuses on JavaScript's interaction with the web page through the **Document Object Model (DOM)**,

teaching you how to select elements, modify content, and respond to user actions using **JavaScript Events**.

Beyond the DOM, you'll explore built-in JavaScript objects like Arrays, Strings, Dates, and Math, learning practical methods for data manipulation. The course also covers crucial topics like **JSON for data exchange**, **form validation**, **managing cookies**, and fundamental **exception handling** to write robust code. Finally, we'll delve into the **Browser Object Model (BOM)** to understand how JavaScript interacts with the browser window itself.

What You'll Learn:

- JavaScript basics: syntax, operators, variables, and data types.
- Control flow: `if-else`, `switch`, and various loop types (`for`, `while`, `for...of`, `for...in`).
- Functions: creation, parameters, and default values.
- Working with JavaScript objects: Arrays, Strings, Dates, Math, Numbers, and Booleans.
- In-depth Document Object Model (DOM) manipulation.
- JavaScript JSON for data serialization and deserialization.
- Client-side form validation and email validation.
- Managing browser cookies and their attributes.
- Fundamental exception handling using `try-catch`.
- Handling user interactions with JavaScript Events like `click`, `onload`, `resize`.
- Understanding the Browser Object Model (BOM) including Window, History, Navigator, and Screen objects.

Who Is This Course For?

This course is specifically designed for absolute beginners with no prior programming or JavaScript experience. It's ideal for anyone looking to start their front-end web development journey, understand how dynamic web pages work, or gain a strong foundational knowledge of JavaScript before diving into frameworks.

Prerequisites:

- **Complete Beginner Friendly:** No prior programming or JavaScript experience is required. This course starts from scratch!
- **Basic HTML & CSS (Recommended):** While not strictly mandatory, a foundational understanding of HTML structure and basic CSS will help you visualize and understand JavaScript's impact on web pages.

- **A Computer/Laptop:** You'll need a working computer (Windows, macOS, or Linux) to write and execute JavaScript code.
- **A Text Editor/IDE:** Any code editor (like VS Code) is suitable.
- **A Willingness to Learn:** Your enthusiasm and commitment are the most important prerequisites!

Includes multiple practical exercises, mini-projects, and a certificate upon completion.
Available in English and Hindi.

Course Curriculum Details

Module 1: Module 1: JavaScript Basics - Getting Started

8 Lessons

1. 1. Introduction to JavaScript: What It Is and How It Powers the Web **15min**
2. 2. A Brief History and Key Features of JavaScript **10min**
3. 3. JavaScript Versions and ECMAScript Standards **10min**
4. 4. Setting Up Your Environment: Browser Console and External JS Files **20min**
5. 5. Your First JavaScript Program: 'Hello World!' **10min**
6. 6. JavaScript Syntax Rules and Best Practices **15min**
7. 7. JavaScript Comments: Single-line and Multi-line **8min**
8. 8. Recap & Practical Task: Write a Basic 'Welcome Message' Script **20min**

Module 2: Module 2: JavaScript Variables and Data Types

9 Lessons

1. 9. Understanding Variables: Declaring and Assigning Values **20min**

2. 10. JavaScript Data Types: String, Number, Boolean, Null, Undefined, Symbol, BigInt **30min**

3. 11. The `var` Keyword: Scope and Hoisting **25min**

4. 12. The `let` Keyword: Block Scope and Reassignment **20min**

5. 13. The `const` Keyword: Block Scope and Immutability **20min**

6. 14. Differences Between `var`, `let`, and `const` (Critical Understanding) **25min**

7. 15. Global vs. Local Variables and Scope **20min**

8. 16. Type Conversion and Coercion (Implicit vs. Explicit) **15min**

9. 17. Recap & Practical Task: Declare Variables for a User Profile **30min**

Module 3: Module 3: JavaScript Operators and Control Statements

14 Lessons

1. 18. Arithmetic Operators (`+`, `-`, `*`, `/`, `%`, `**`, `++`, `--`) **15min**

2. 19. Assignment Operators (`=`, `+=`, `-=`, etc.) **10min**

3. 20. Comparison Operators (`==`, `===`, `!=`, `!==`, `>`, `<`, `>=`, `<=`) **20min**

4. 21. Logical Operators (`&&`, `||`, `!`) **15min**

5. 22. Conditional Statements: `if`, `else if`, `else` **20min**

6. 23. The `switch` Statement **20min**

7. 24. Introduction to Loops: Why We Use Them **10min**

8. 25. The `for` Loop **25min**

9. 26. The `while` Loop **20min**

10. 27. The `do-while` Loop **15min**

11. 28. The `for...of` Loop (Iterating over Iterable Objects) **20min**

12. 29. The `for...in` Loop (Iterating over Object Properties) **15min**

13. 30. The `return` Statement (Exiting Functions) **10min**

14. 31. Recap & Practical Task: Create a Simple 'Guess the Number' Game **40min**

Module 4: Module 4: JavaScript Functions

7 Lessons

1. 32. Introduction to Functions: Defining and Calling **20min**

2. 33. Function Parameters and Arguments **20min**

3. 34. Default Parameters (ES6) **15min**

4. 35. Function Expressions vs. Function Declarations **20min**

5. 36. Arrow Functions (ES6 Basics) **20min**

6. 37. Scope Revisited: Functions and Variables **15min**

7. 38. Recap & Practical Task: Create Functions for Common Calculations **30min**

Module 5: Module 5: Working with JavaScript Objects (Built-in & Custom)

12 Lessons

1. 39. Introduction to JavaScript Objects (Key-Value Pairs) **20min**

2. 40. Accessing Object Properties and Methods **15min**

3. 41. JavaScript Arrays: Creating and Accessing Elements **25min**

4. 42. Common JavaScript Array Methods (`push`, `pop`, `shift`, `unshift`, `splice`, `slice`, `indexOf`, `includes`) **40min**

5. 43. Iterating Arrays with `forEach` and `map` **20min**

6. 44. JavaScript Strings: Properties and Basic Methods (`length`, `toUpperCase`, `toLowerCase`, `trim`) **25min**

7. 45. Advanced String Methods (`substring`, `slice`, `replace`, `split`, `startsWith`, `endsWith`) **30min**

8. 46. JavaScript Date Object: Creating and Formatting Dates **25min**

9. 47. JavaScript Math Object: Common Mathematical Operations **20min**

10. 48. JavaScript Number Object: Methods for Numbers **15min**

11. 49. JavaScript Boolean Object: True/False Logic **10min**

12. 50. Recap & Practical Task: Build a Simple Shopping Cart Array **50min**

Module 6: Module 6: JavaScript DOM (Document Object Model)

13 Lessons

1. 51. Introduction to the DOM: What It Is and How JavaScript Interacts with HTML
20min

2. 52. Selecting Elements: `document.getElementById()` **15min**

3. 53. Selecting Elements: `document.getElementsByClassName()` **15min**

4. 54. Selecting Elements: `document.getElementsByName()` **15min**

5. 55. Selecting Elements: `document.getElementsByTagName()` **15min**

6. 56. Modifying Content: `innerHTML` Property **20min**

7. 57. Modifying Text: `innerText` Property **15min**

8. 58. Modifying Attributes (`setAttribute`, `removeAttribute`, `getAttribute`) **20min**

9. 59. Modifying CSS Styles with JavaScript (`.style` Property) **20min**

10. 60. Adding and Removing CSS Classes (`.classList`) **20min**

11. 61. Creating and Appending New Elements (`createElement`, `appendChild`)
25min

12. 62. Removing Elements (`removeChild`) **15min**

13. 63. Recap & Practical Task: Build a Simple Light/Dark Mode Toggle **40min**

Module 7: Module 7: JavaScript JSON Object

6 Lessons

1. 64. Introduction to JSON (JavaScript Object Notation): What it is and Why it's Used
20min

2. 65. JSON Syntax Rules **15min**

3. 66. Converting JSON Strings to JavaScript Objects: `JSON.parse()` **25min**

4. 67. Converting JavaScript Objects to JSON Strings: `JSON.stringify()` **25min**

5. 68. Practical Use Cases of JSON (e.g., Data Exchange with Servers) **20min**

6. 69. Recap & Practical Task: Work with Sample JSON Data **35min**

Module 8: Module 8: JavaScript Form Validation

7 Lessons

1. 70. Introduction to JavaScript Form Validation: Why It's Important **20min**

2. 71. Basic Form Validation Principles (Empty Fields, Length Checks) **25min**

3. 72. Validating Required Fields **20min**

4. 73. JavaScript Email Validation (Basic Pattern Checking) **25min**

5. 74. Validating Numbers and Other Input Types **20min**

6. 75. Displaying Validation Messages to Users **20min**

7. 76. Recap & Practical Task: Build a Contact Form with JavaScript Validation **45min**

Module 9: Module 9: JavaScript Cookies

6 Lessons

1. 77. Introduction to JavaScript Cookies: What They Are and How They Work **20min**

2. 78. Setting and Getting Cookies (`document.cookie`) **25min**

3. 79. Cookie Attributes: `expires`, `path`, `domain`, `secure`, `HttpOnly` (Overview) **25min**

4. 80. Working with Cookies that have Multiple Names/Values **20min**

5. 81. Deleting Cookies **15min**

6. 82. Recap & Practical Task: Implement a 'Remember Me' Feature Using Cookies

40min

Module 10: Module 10: Exception Handling in JavaScript

6 Lessons

1. 83. Introduction to Exception Handling: Common Errors and Debugging **20min**

2. 84. The `try...catch` Statement for Handling Errors Gracefully **25min**

3. 85. The `finally` Block **20min**

4. 86. Throwing Custom Errors (`throw` statement) **15min**

5. 87. Error Objects (Name, Message, Stack) **15min**

6. 88. Recap & Practical Task: Add Error Handling to a Data Processing Script **30min**

Module 11: Module 11: JavaScript Events - Responding to User Actions

11 Lessons

1. 89. Introduction to JavaScript Events: Making Your Pages Interactive **20min**

2. 90. Event Handlers vs. `addEventListener` **25min**

3. 91. The `onclick` Event **15min**

4. 92. The `dblclick` Event **10min**

5. 93. Mouse Events: `mouseover`, `mouseout`, `mousedown`, `mouseup`,
`mousemove` **25min**

6. 94. Keyboard Events: `keydown`, `keyup`, `keypress` **20min**

7. 95. Form Events: ``submit``, ``change``, ``focus``, ``blur`` **20min**

8. 96. Window Load Events: ``onload`` **15min**

9. 97. Window Resize Events: ``onresize`` **10min**

10. 98. Event Object Properties (``target``, ``type``, ``clientX``, ``clientY``, etc.) **20min**

11. 99. Recap & Practical Task: Build an Interactive Image Viewer **45min**

Module 12: Module 12: JavaScript BOM (Browser Object Model)

8 Lessons

1. 100. Introduction to the BOM: Interacting with the Browser Window **15min**

2. 101. The Window Object: Properties and Methods (``alert``, ``confirm``, ``prompt``, ``setTimeout``, ``setInterval``) **30min**

3. 102. The History Object: Navigating Browser History (``back``, ``forward``, ``go``) **20min**

4. 103. The Navigator Object: Browser Information (``userAgent``, ``platform``) **15min**

5. 104. The Screen Object: Screen Dimensions and Properties **15min**

6. 105. ``location`` Object: URL Information and Redirection **20min**

7. 106. Popup Windows (``window.open()``, ``window.close()``) **15min**

8. 107. Recap & Practical Task: Create a Simple Browser Information Tool **35min**

Module 13: Module 13: Final Project: Build a Dynamic Calculator Application

8 Lessons

1. 108. Project Overview: Planning the Calculator Interface and Logic **40min**
2. 109. Setting up the HTML Structure for the Calculator Interface **1hr**
3. 110. Implementing Basic Arithmetic Operations with JavaScript Functions **1hr 30min**
4. 111. Handling User Input and Display Updates with DOM Manipulation **1hr**
5. 112. Adding Event Listeners for Button Clicks and Keyboard Input **1hr**
6. 113. Incorporating Basic Error Handling (e.g., Division by Zero) **45min**
7. 114. Enhancing User Experience (e.g., Clear Button, Decimal Points) **45min**
8. 115. Final Project Review and Submission **1hr**

This curriculum is subject to minor adjustments to ensure the most up-to-date and effective learning experience.