1. Basic JavaScript Introduction

Chapter 1 contains the basic introduction to the JavaScript language, such as

- What is JavaScript?
- Evolution of JavaScript
- Features of JavaScript
- Advantages and Disadvantages of JavaScript
- How does JavaScript works?
- Structure of a JavaScript program
- How to write JavaScript in Notepad++, Visual Studio Code, and Eclipse IDE?
- How to add JavaScript in HTML?
- How to include External JavaScript in HTML?

2. JavaScript Data Types and Variables

Chapter 2 deals with the most important and basic concepts of JavaScript. They are:

- JavaScript Comments
- JavaScript Keywords
- Data Types in JavaScript
- JavaScript Variables
- Types of Variables in JavaScript
- Key Difference between Var, Let, and Const

3. JavaScript Operators

Chapter 3 deals with operators in JavaScript. In this chapter, we will learn the following topics:

- What are <u>Operators in JavaScript</u>?
- Assignment Operator
- Comparison Operators
- Logical Operators
- Conditional Operators

- <u>Bitwise Operators</u>
- Unary Operators
- TypeOf Operator
- Operator Precedence

4. JavaScript Statement

This chapter deals with the following topics that are as:

- Conditional Statement
 - If statement
 - If else statement
 - Switch statement
- Loop statements
 - While Loop
 - Do while Loop
 - For loop
 - Nested for loops
 - For In loop
 - For Of loop
 - Break statement
 - Continue statement

5. JavaScript Function

This chapter deals with the following topics that are as follows:

- What is a function in JavaScript?
- How to call a function in JavaScript using arguments?
- Pass By Value in JavaScript
- Function return (or return statement)
- Nested functions
- Rest parameter
- Anonymous functions
- Recursion
- Arrow Function

6. Objects in JavaScript

Chapter 6 in this JavaScript syllabus deals with the following important topics that are as:

- What is an Object?
- Types of Objects
- Array Object
 - Properties of Array Object
 - Methods of Array Object
- String Object
 - Properties of String Object
 - Methods of String Object
- Math Object
 - Properties of Math Object
 - Methods of Math Object
- Date Object
 - Methods of Date Object
- Global Object
 - Properties of Global Object
 - Methods of Global Object
- Number Object
 - Properties of Number Object
 - Methods of Number Object
- Creating your own Objects
 - Defining methods

7. JavaScript Window and Frame Objects

Chapter 7 in this JavaScript syllabus, deals with the following key topics that are as:

- Top-level Objects
- Window Object
 - Creating a Window
 - Communicating with the user
 - Working with Timeouts
 - Some properties of Window Object
 - Some other useful methods of Window Object
- Location Object

- Properties of Location Object
- Methods of Location Object
- Document Object
 - Properties of Document Object
 - Methods of Document Object
- The Navigator Object
 - Properties of Navigator Object
 - · Methods of Navigator Object
- History Object
 - Properties of History Object
 - Methods of History Object
- Screen Object
- Working with Frames
 - Creating frames
 - · The frame tree
 - Accessing frames
 - Nested frames
 - Frame object model
 - Frame element object

8. JavaScript Event Handling

Chapter 8 in this JavaScript syllabus covers the following significant topics that are as:

- Events
 - How does it work?
- Objects and Events
 - Creating an Event handler
 - Changing Event handlers
- Managing JavaScript Events
 - Mouse Events
 - Keyboard Events
 - The onLoad and onUnload Events
- Event Simulation
- The Event object
- Event capturing
 - Turning off Event capturing

- Event bubbling
 - Preventing Event bubbling

9. JavaScript Exception Handling

The following topics come under this chapter that are as:

- Exceptions and Errors
- Exception mechanism
- "try-catch-finally" constructions
- Throwing exceptions
- Error Object
 - Properties of Error Object
 - · Methods of Error Object

10. Form

In this module, we will learn the following important topics that are as:

- The Form Object
 - Accessing Forms within JavaScript
 - Accessing Form elements
 - About <input> element objects
 - Properties of Form Object
 - Methods of Form Object
- Fieldset and Legend Element Objects
- Label Element Object
- Text Input Object
 - Properties of Text Input Object
 - Methods of Text Input Object
- Password Input Object
- Hidden Input Object
- Textarea Element Object
 - Properties of Textarea Element Object
- Button Element Object
- Checkbox Input Object
 - Properties of Checkbox Input Object

- Method of Checkbox Input Object
- Radio Input Object
 - Properties of Radio Input Object
 - Methods of Radio Input Object
- Image Input Object
 - Properties of Image Input Object
- Select Element Object
 - Properties of Select Element Object
 - Methods of Select Element Object
- Option Element Object
- File Input Element Object

11. Document Object Model (DOM)

Chapter 11 contains the following topics under this JavaScript syllabus that are as:

- Document Object Model (DOM) and W3C
 - DOM Levels
 DOM and JavaScript
- New DOM Concepts
 - Element Referencing
 Hierarchy of nodes
 Node properties
 Node methods
 Generating new node content
 Replacing node content

12. Introduction of HTML

This chapter contains the following basic key topics that are as follows:

- Introduction of HTML
- A brief history of HTML
 - The World Wide Web
 - User Agents (or Browsers)
- The Building Blocks of a Webpage

- HTML and Word processors
- HTML tags
- Nesting tags
- Tag attribute
- Fundamental tags
- A simple HTML document
 - The Meta tag
 - Adding comments