

HTML and JavaScript

Introduction of HTML

- 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

1. Basic JavaScript

- 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

- 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

- What are Operators in JavaScript?
- Assignment Operator
- Comparison Operators
- Logical Operators
- Conditional Operators
- Bitwise Operators
- Unary Operators
- TypeOf Operator
- Operator Precedence

4. JavaScript Statement

- 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 Functions

- 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

- 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

- 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

- 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

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

10. Form

- 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)

- 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