

JAVASCRIPT TRAINING

Training duration: 16 hours

OVERVIEW

JavaScript (JS) is the language for scripting web pages – to enable user interactions on a web page, communicate with the backend etc. Along with HyperText Markup Language (HTML) and Cascading StyleSheets (CSS), it forms the basis for creating any web page.

Of late, JS has gained considerable popularity. A language, once solely in the domain of front-end web development, it has now expanded horizons to include applications in the server-side, mobile, desktops, IoT etc.

The latest versions of JavaScript like ES2015 (ES6), ES2016 (ES7) have introduced a plethora of great new features that have found adoption in modern frontend and backend frameworks.

PREREQUISITES

- Working knowledge of HTML, CSS
- Bootstrap knowledge is a plus, but not necessary
- Knowledge of Object Oriented Programming (OOP) concepts is desirable, but not required

CAPSTONE PROJECT

At the end of this bootcamp, participants will build a blogging application using plain JavaScript. A backend server shall be provided. The app will list blog articles, allow authenticated users to post articles, and also edit/delete articles they posted.

CHAPTERS AND TOPICS

Introduction to JavaScript Language Fundamentals

- Variables and Primitive Data Types
- Variable Scopes
- Using Arrays
- Operators and expressions
- Control flow - Branching and Looping

Introduction to Functions

- Function Declaration and Usage
- Callbacks - Passing Functions as Arguments
- Returning Functions
- Closures

Introduction to Objects

- Object Declaration using Literal Syntax
- Accessing Properties and Methods
- Adding Properties

Basic Introduction to Built-in Classes and Objects in the JavaScript Language

- Object
- Function - Functions as Objects, bind()
- Array methods
- String methods
- Number methods
- Math methods

The Document Object Model (DOM)

- The window object
- Nodes and the DOM Tree
- Methods for DOM Manipulation

Event Handling

Various Browser Events

Different Ways to Handle Events

Event Object Properties and Methods

Ajax, fetching data from backend, and posting data to backend

Introduction to Few Features of ES2015+

Block-level scoping and the use of let, const

Object and Array Destructuring

Arrow Functions

Default Parameters

Babel, its configuration and the transpilation process