GETTING STARTED

- What is JavaScript
- Install a JavaScript Code Editor
- Meet the Console Tab of Devtools
- JavaScript Hello World

JAVASCRIPT FUNDAMENTALS

- Syntax
- Variables
- Data Types
- Number
- Numeric Separator
- Octal and Binary Literals
- Boolean
- String
- Object
- Primitive vs. Reference Values
- Array

JAVASCRIPT OPERATORS

- Arithmetic Operators
- Remainder Operator
- Assignment Operators
- Unary Operators
- Comparison Operators
- Logical Operators
- Logical Assignment Operators
- Nullish Coalescing Operator
- Exponentiation Operator

CONTROL FLOW

- if
- if else
- if else if
- Ternary Operator (:?)
- switch case
- while
- do while
- for
- break
- continue
- Comma Operator

JAVASCRIPT FUNCTIONS

- Functions
- Functions are First-Class Citizens
- Anonymous Functions
- Understanding Pass-By-Value in JavaScript
- Recursive Functions
- Default Parameters

JAVASCRIPT OBJECTS

- Object Methods
- Constructor Functions
- Prototype
- Constructor/Prototype Pattern
- Prototypal Inheritance
- this
- globalThis
- Object Properties
- for...in Loop
- Enumerable Properties
- Own Properties
- Object.values()
- Object.entries()
- Object.is()
- Factory Functions
- Object Destructuring
- Optional Chaining Operator
- Object Literal Syntax Extensions

CLASSES

- Class
- Getters & Setters
- Class Expressions
- Computed Properties
- Inheritance
- new.target
- Static Methods
- Static Properties
- Private Fields
- Private Methods
- instanceof Operator

ADVANCED FUNCTIONS

- Function Type
- The call() Method
- The apply() method
- The bind() Method
- Closures
- Immediately Invoked Function Expression (IIFE)

- Returning Multiple Values
- Arrow Functions
- Arrow Functions: Do & Don't
- Rest Parameters
- Callback

PROMISES & ASYNC/AWAIT

- Promises
- Promise Chaining
- Promise.all()
- Promise.race()
- Promise.any()
- Promise.allSettled()
- Promise.prototype.finally()
- Promise Error Handling
- async/await

JAVASCRIPT MODULES

- Modules
- Dynamic Import
- Top-level Await Modules

JAVASCRIPT ERROR HANDLING

- try...catch
- try...catch...finally
- Throw an Exception
- Optional catch Binding

JAVASCRIPT RUNTIME

- Execution Context
- Call Stack
- Event Loop
- Hoisting
- Variable Scopes

NEW ES6 SYNTAX

- JavaScript let
- var vs. let
- JavaScript const
- Template Literals
- Object Literal Syntax Extensions
- Default Parameters
- Rest Parameters

- Spread Operator
- Destructuring
- for...of Loop
- Octal and Binary Literals

ES6 MODULE & CLASS

- Class
- Getters & Setters
- Class Expressions
- Computed Properties
- Inheritance
- new.target

ES6 ARROW FUNCTIONS

- Arrow Functions
- When Not To Use Arrow Functions

ITERATORS & GENERATORS

- Iterators
- Generators
- · yield Keyword

PROMISES

- Promises
- Promise Chaining
- Promise.all()
- Promise.race()
- Promise Error Handling

ES6 COLLECTIONS

- Set
- Map

ARRAY EXTENSIONS

- Array.of()
- Array.from()
- Array find()
- Array findIndex()

OBJECT EXTENSIONS

- Object.assign()
- Object.is()

STRING EXTENSIONS

- String startsWith()
- String endsWith()
- String includes()

PROXY & REFLECTION

- Proxy
- Reflection

MANGING ATTRIBUTES

- HTML Attributes & DOM Properties
- Set Value of an Attribute
- Get Value of an Attribute
- Remove an Attribute from Elements
- Check if an Element has an Attribute

STYLING

- Get or Set Inline Style
- Get the Computed Style
- Get CSS Classes
- Manipulate CSS Classes
- Get Element's Width and Height

HANDLING EVENTS

- Introduction to Events
- Event Handling
- Page Load Events
- The onload Event
- The DOMContentLoaded Event
- The unload Event
- The beforeunload Event
- Mouse Events
- Keyboard Events
- Scroll Events
- Scroll an Element Into View
- Focus Events
- The haschange Event
- Event Delegation
- Simulate Events

Custom Events

SCRIPTING FORMS

- Form: submit & reset
- Checkbox
- Radio Button
- Select Box
- Add & Remove Options
- Remove Items from Select Element Conditionally

Node.js Tutorial

- o Node.js Tutorial
- o Install Node.js Windows
- o Install Node.js Linux
- o Node.js First Example
- o Node.js Console
- o Node.js REPL
- o Node.js NPM
- o Node.js CL Options
- o Node.js Globals
- o Node.js OS
- o Node.js Timer
- o Node.js Errors
- o Node.js DNS
- o Node.js Net
- o Node.js Crypto
- o Node.js TLS/SSL
- o Node.js Debugger
- o Node.js Process
- o Node.js Child Process
- o Node.js Buffers

- o Node.js Streams
- o Node.js File System
- o Node.js Path
- o Node.js StringDecoder
- o Node.js Query String
- o Node.js ZLIB
- o Node.js Assertion
- o Node.js V8
- o Node.js Callbacks
- Node.js Events
- o Node.js Punycode
- o Node.js TTY
- o Node.js Web Modules

Node.js MySQL

- MySQL Create Connection
- o MySQL Create Database
- MySQL Create Table
- MySQL Insert Record
- o MySQL Delete Record
- o MySQL Select Record
- MySQL Select Unique
- o MySQL Drop Table

Node.js MongoDB

- o Create Connection
- Create Database
- o Create Collection
- o MongoDB Insert
- o MongoDB Select
- o MongoDB Query
- o MongoDB Sorting

o MongoDB Remove

Difference

- Node.js vs AngularJS
- o Node.js vs Python
- o Node.js vs PHP
- o Node.js vs Java

Node.js Express

- o Express.js Tutorial
- What is Express.js
- o Install Express.js
- o Express.js Request
- o Express.js Response
- o Express.js Get
- o Express.js Post
- Express.js Routing
- Express.js Cookies
- o Express.js File Upload
- o Express.js Middleware
- o Express.js Scaffolding
- o Express.js Template

MongoDB

- MongoDB Overview
- MongoDB Advantages
- MongoDB Environment
- MongoDB Data Modeling
- MongoDB Create Database
- MongoDB Drop Database
- MongoDB Create Collection
- MongoDB Drop Collection
- MongoDB Data Types
- MongoDB Insert Document
- MongoDB Query Document

- MongoDB Update Document
- MongoDB Delete Document
- MongoDB Projection
- MongoDB Limiting Records
- MongoDB Sorting Records
- MongoDB Indexing
- MongoDB Aggregation
- MongoDB Replication
- MongoDB Sharding
- MongoDB Create Backup
- MongoDB Deployment

Advanced MongoDB

- MongoDB Relationships
- MongoDB Database References
- MongoDB Covered Queries
- MongoDB Analyzing Queries
- MongoDB Atomic Operations
- MongoDB Advanced Indexing
- MongoDB Indexing Limitations
- MongoDB ObjectId
- MongoDB Map Reduce

REACT

- o ReactJS Tutorial
- React Introduction
- React Version
- React Installation
- o create-react-app
- React Features
- o Pros & Cons
- ReactJS vs AngularJS
- ReactJS vs ReactNative
- React vs Vue
- React JSX
- React Components

- o React State
- React Props
- React Props Validation
- React State vs Props
- React Constructor
- o React Component API
- o Component Life Cycle
- React Forms
- o Controlled vs Uncontrolled
- React Events
- o Conditional Rendering
- React Lists
- o React Keys
- React Refs
- React Fragments
- React Router
- React CSS
- React Animation
- React Bootstrap
- o React Map
- React Table
- o Higher-Order Components
- o React Code Splitting
- React Context
- React Hooks
- o React Flux Concept
- React Flux Vs MVC
- React Redux
- React Redux Example
- React Portals
- React Error Boundaries