

Full Stack Developer - MERN Course Content

Section 1: HTML 5

- Introduction - Web
- What are the different Types of Web Apps overview?
- Introduction to HTML
- Define HTML Structure
- Difference between Tag vs Element
- Difference between Semantic vs Non-semantic elements
- Difference between Block level elements vs Inline elements
- HTML Elements
- HTML Forms & its Attributes
- HTML Input Elements
- HTML Global Attributes
- HTML Element Specific Attributes

Section 2: CSS & Bootstrap

- What is CSS?
- Understanding the CSS Syntax.
- CSS Selectors
- How To Add CSS in HTML
- CSS Colors & Backgrounds
- CSS Borders, Margins, Padding, Height and Width
- Responsive Web Design – Media queries
- What is Bootstrap?
- Get Start with Bootstrap
- Containers
- Grid System
- Structure of a Bootstrap Grid
- Bootstrap Colors
- Bootstrap Tables
- Bootstrap Jumbotron
- Bootstrap Alerts
- Bootstrap Buttons

Section 3: JavaScript

- Introduction – Javascript
- JavaScript Events
- JavaScript Functions
- Inbuilt methods in JS
- Arrays in JavaScript
- Objects in JavaScript
- Conditional and loops in JavaScript
- HTML DOM Manipulation

Section 4: ES6 JavaScript

- History of JavaScript
- Features
- let & const and its example
- Arrow Functions
- Alternative
- Tips and Arrow Functions
- Exports and Imports
- Tips for exports and imports
- Classes
- Classes example
- Inheritance
- Spread and rest Parameter
- Destructing

Section 5: What is React JS?

- React JS Introduction
- Advantages of React JS
- Work flow of React JS
- Scope of React JS

Section 6: Overview of JSX

- Introduction of Virtual DOM.
- Difference between JS and JSX

- React Components overview
- Containers and components
- What is Child Components?
- What is Namespaced components?
- What are the JavaScript expressions available in JSX?

Section 7: React JS Environment Setups

- Node setup
- How to use NPM?
- How to create package.json and purpose of it?
- ES6 Introduction and features.
- Webpack Overview
- Best IDE for React JS and How to write optimised code in React JS?
- React JS browser plugins overview.

Section 8: A Real-Time Application by using React JS

- Create a React component with JSX template.
- How to create Nested Components?
- What is React JS render?
- React Props overview.
- Introduction of Props validation with data types.
- Flow of States, Initialize states and update states.

Section 9: React JS forms and UI

- Lists of Form components.
- Setup Controlled and Uncontrolled form components.
- Control Input elements.
- How to set default values on all formats of Input elements.
- React JS Form validations.
- How to write Styles?
- Animations overview

Section 10: React JS Component Life Cycles Overview

- Initial Render
- Props Change
- Stage Change
- Component willMount

- Component componentDidMount
- Component Unmount

Section 11: Routing in React JS and Other JS concepts

- Single Page Application Overview.
- How to configure React Router?
- History of Router
- How to Handle Conditional Statements in JSX?
- IIFE in JSX for complex logic overview.

Section 12: Event Handling in JSX

- onBlur, onKeyUp, onChange and other useful primary events in React JS.
- How to share events between the components?

Section 13: How to write Styles in React JS?

- CSS and inline styles in React JS overview.
- Introduction to styled components

Section 14: React Router with Navigation

- How to Load the router library?
- Configure the React Router?
- How to Pass and receive parameters?
- Integration of React-cookie overview.

Section 15: Flux, Redux overview

- What is Flux Architecture?
- What are the Flux Components available?
- Stores.
- Dispatchers.
- View Controllers.
- Actions.
- Views.
- How Flux works?
- Flux and React works together.
- Introduction to One Store.
- Provider Component

- Actions
- Reducers
- sagas
- Dispatchers
- View Controllers
- Selectors

Section 16: Integration with other libraries

- Gulp & Browserify
- React with jQuery
- React & AJAX

Section 17: React Server Integration with Deployment

- https
- httpster
- npm

Section 18: Hooks

- Understanding Hooks
- The useState hook
- Side effects using the useEffect hook
- The useContext hook
- The useReducer hook
- Writing your own hook

Section 19: Code Splitting

- Code splitting & Suspense
- Route Based Code Splitting
- Lazy Loading

Section 20: Epilogue

- The React ecosystem

Section 21: Webpack Primer and Isomorphic React

- Webpack and its use
- Setting up and installing Webpack
- Working with the configuration file of Webpack

- Working with loaders
- Quick word on lazy loading, code splitting, and tree shaking

Section 22: Node JS AND Express JS

- What is Node JS?
- NPM Overview
- How to install NPMs
- Introduction about package.json
- What are the core Modules Available?
- How to create & run a Node Server
- How to create Local Module?
- Node Routing in detail
- Error Handling in Node JS

Section 23: Working with top NPMs

- Nodemon
- JWT
- Body Parser
- HTTP Request & Response – GET, POST, PUT & DELETE
- How to handle Headers?
- How to receive form data?
- Authorization & Authentication

Section 24: Express JS

- Express JS Overview
- Routing in Express JS
- How to Run Express on top of Node JS?
- What is Middleware?
- How Middleware works?
- How to create RESTful API?
- Debugging

Section 25: MongoDB

- MongoDB Overview
- How to use MongoDB in Cloud?
- Cluster in MongoDB
- Create database

- Create Users
- Create table
- What is Collection & Document?
- Insert & Insert many Document
- Select & Select One Document
- Delete & Delete One Document.
- Update & Update one Document

Section 26: Real Time Projects

- 5+ Real-time projects (Full stack coverage)
- Setup Git for local repository
- Create a GitHub account
- Sync the code base with GitHub repo
- Firebase Hosting Overview
- Setting up Firebase in local
- Host your project in Firebase

Section 27: Placements

- Build your Professional Resume
- Update LinkedIn Profile
- Interview based Training – GD, Tech round, HR panel
- Minimum 5 Mock interviews before Real interview
- 100% Placement Guaranteed
- Join your Dream Job

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AWS – Cloud Computing:

Section 1: Cloud Computing Introduction

- History of Cloud Computing
- What is Cloud Computing?
- Why Cloud Computing?
- Advantages of Cloud Computing

Section 2: Cloud Computing Service Models

- What is Software as a Service (SaaS)?
- Platform as a Service (PaaS)?
- Infrastructure as a Service (IaaS)?

Section 3: Introduction to AWS Architecture

- Key Considerations for Web Hosting in AWS

Section 4: AWS – Management Console & Account

- How to Access AWS?
- AWS Identity & Access Management (IAM).
- Creating Free Tier Account in AWS
- Introduction of AWS Management Console / CLI / SDK

Section 5: Compute Services in AWS

- AWS EC2
- AWS Lambda

Section 6: Storage and Content Delivery Services

- AWS S3
- AWS EBS

Section 7: Database Services

- Amazon RDS
- AWS DynamoDB

Section 8: Networking Services in AWS

- VPC AWS
- Route 53

Agile Scrum

Section 1: Definition of SCRUM

Section 2: Agile Manifesto

- Scrum Master
- Product Owner

Section 3: Scrum Roles and Responsibilities

- Development Team

Section 4: Typical Sprint Phases

- Product Backlog
- Sprint Planning
- Sprint Backlog
- Sprint
- Daily Scrum
- Sprint Review
- Sprint Retrospective

