

MERN STACK COURSE

Duration: 4-6 months (3-months training + 3 months internship)

Course Highlight:

HTML, CSS, JS, ES6, Bootstrap, Tailwind, NODE, REACT, EXPRESS, NEXT, MONGODB, RESTAPI, AI-TOOLS, CLOUD Overview, DEVOPS Tools OVERVIEW

Module 1: Web Foundations (HTML, CSS, JS Basics)

- HTML5: Semantic Elements, Forms, SEO tags
- CSS3: Flexbox, Grid, Animations, Media Queries
- JavaScript (ES5): Variables, Functions, DOM, Events
- Debugging with Browser Tools

Module 2: Modern JavaScript (ES6+)

- Let, Const, Arrow Functions, Template Literals
- Destructuring, Spread & Rest Operators
- Modules (import/export)
- Promises & Async/Await
- Classes & OOP in JS
- Fetch API, JSON Handling

Module 3: Styling Frameworks

- Bootstrap 5: Grid, Components, Forms
- Tailwind CSS: Utility Classes, Responsive Design, Dark Mode
- Bootstrap vs Tailwind: When to Use

Module 4: React.js (Frontend Library)

- React & JSX Basics
- Functional Components & Props, Class Component & Lifecycle
- State & Hooks (useState, useEffect, useRef)
- Forms & Event Handling
- Lists & Conditional Rendering
- React Router v6+ (Navigation, Nested Routes)
- API Calls with Axios/Fetch

Module 5: State Management with Redux

- Why Redux? Global State Problem
- Redux Core Concepts (Store, Reducers, Actions)
- Setting up Redux in React App
- Using Redux Toolkit (Slices, createAsyncThunk)
- Redux DevTools & Middleware
- Handling API Calls with Redux Toolkit
- Best Practices for Scalable Redux Apps