

MERN Stack Developer Roadmap (4 Months)

Duration: 4 Months | Classes per Week: 2 | Total Classes: 32

Month 1: Frontend Foundations

Week 1: HTML Basics

- Web fundamentals and client-server architecture
- HTML structure, tags, headings, paragraphs
- Lists, links, images
- Forms and semantic HTML
- Mini task: Resume webpage

Week 2: CSS Core

- CSS syntax and selectors
- Box model, colors, units
- Display and positioning
- Flexbox layout
- Mini project: Static landing page

Week 3: Advanced CSS & Tailwind

- Responsive design principles
- Media queries and CSS Grid
- Tailwind CSS setup and utilities
- Responsive UI using Tailwind

Week 4: JavaScript Basics

- Variables, data types, operators
- Conditional statements and loops
- Functions
- Arrays and objects

Month 2: JavaScript Advanced + Git + Project

Week 5: Advanced JavaScript

- Array methods (map, filter, reduce)
- String and object methods
- Scope and hoisting
- Closures and callbacks

Week 6: Async JavaScript

- setTimeout and setInterval
- Promises

- Async/Await
- Fetch API and error handling

Week 7: Git & GitHub

- Git basics and commands
- Branching and merging
- GitHub repositories
- Team collaboration workflow

Week 8: JavaScript Project

- DOM manipulation
- LocalStorage
- Project: Todo / Expense Tracker
- Deployment using Netlify

Month 3: React & Redux

Week 9: React Basics

- React introduction
- JSX and components
- Props and state
- Event handling

Week 10: React Hooks

- useState and useEffect
- Form handling
- API integration
- Conditional rendering

Week 11: Advanced React

- React Router
- Dynamic routing
- Context API
- Performance basics

Week 12: Redux Toolkit

- Why Redux
- Redux flow
- Redux Toolkit setup
- CRUD application using Redux

Month 4: Backend & Full Stack

Week 13: Node.js & Express

- Node.js fundamentals
- NPM and packages
- Express setup
- REST API and routing

Week 14: MongoDB & Mongoose

- MongoDB concepts
- CRUD operations
- Mongoose schemas and models
- Relationships

Week 15: Authentication & Atlas

- MongoDB Atlas
- Environment variables
- JWT authentication
- Password encryption with bcrypt

Week 16: Full Stack Project

- Frontend and backend integration
- Authentication flow
- Full stack project development
- Deployment and interview preparation

Projects Summary

- 1 JavaScript Project: Todo or Expense Tracker
- 2 React + Redux Project: Student or Product Management System
- 3 Full Stack MERN Project: Job Portal / E-commerce / Blogging Platform