



Full Stack Development (MERN) Course Structure

Duration – 100 Hours (6 Months)

Course Fees **Rs 25000/-**



Full Stack Development (MERN)

Equip learners with hands-on expertise in frontend, backend, database, and deployment using the MERN Stack (MongoDB, Express.js, React.js, Node.js). Prepare them for roles like:

- MERN Full Stack Developer
- Web Developer
- Frontend / Backend Developer
- React Developer

HTML, CSS & JavaScript Basics – 10 Hours

- HTML5: Semantic tags, Forms, Media
- CSS3: Flexbox, Grid, Animations
- JS: Variables, Data types, Loops, Functions
- Lab: Build a static portfolio website

Advanced JavaScript & ES6 – 10 Hours

- ES6 features: Arrow functions, Classes, Modules
- Asynchronous JS: Promises, Async/Await
- DOM manipulation & event handling
- Lab: Interactive to-do web app

Frontend Development with React.js – 10 Hours

- React fundamentals: Components, JSX, Props, State
- Hooks: useState, useEffect, useContext
- React Router, Conditional Rendering
- Lab: Multi-page React application

Backend Development with Node.js & Express – 10 Hours

- Node.js fundamentals: Modules, NPM, Event Loop
- Express.js: Routing, Middleware, REST API design
- Authentication & JWT
- Lab: Build a backend for the React frontend



Database Management with MongoDB – 10 Hours

- MongoDB basics: Collections, Documents, Queries
- Mongoose: Models, Schemas, Validation
- Aggregation & Indexing
- Lab: Store and manage app data in MongoDB

Full Stack Integration (MERN) – 10 Hours

- Connect React frontend to Node backend
- RESTful API integration with Axios
- Error handling & data validation
- Lab: Build a full-stack e-commerce app

Deployment, Version Control & DevOps Basics – 15 Hours

- Git & GitHub workflow
- Deploy MERN apps on Heroku / Netlify
- Introduction to CI/CD pipelines
- Lab: Deploy full-stack project online

Capstone Project / Internship with Deployment & Cloud Storage – 25 Hours

Sample Projects:

- Online e-commerce platform (MERN)
- Social media clone
- Task management / CRM app
- Deliverables: Project report, live demo, technical presentation

Tools & Technologies

VS Code, Node.js, NPM, MongoDB, Express.js, React.js, Git/GitHub, Postman, Heroku, Netlify, Chrome DevTools, Mongoose.



Assessment & Evaluation

- Module-wise quizzes and practical assignments
- Mid-term and Final evaluation
- Capstone project presentation

Career Support & Outcomes

- Resume & LinkedIn Optimization
- Interview Preparation (Technical + HR) Mock Interviews
- Job Assistance through Industry Tie-ups



Contact Us Today!



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