

# Full-Stack Web Development Roadmap (JavaScript > Node.js > React)

## 1. JavaScript (Bro Code Course - Complete)

- Learn variables, functions, loops, arrays, objects, DOM manipulation, events
- Practice basic projects: calculator, to-do list, rock-paper-scissors
- Time Estimate: 30-40 hours (including projects)

## 2. Node.js (Backend JavaScript)

- Learn Node.js basics, npm, modules, and Express.js
- Understand REST API, routing, middleware
- Practice file handling, environment variables, and using Postman
- Database: Learn MongoDB or MySQL basics and integration
- Projects: To-do API, login system, file upload service
- Time Estimate: 30-50 hours (watch + build)

## 3. React (Frontend Library)

- Learn JSX, components, props, state, and hooks (useState, useEffect)
- Routing with React Router, conditional rendering, and controlled forms
- Fetching data from APIs and building dynamic UIs
- Projects: Weather app, task manager, blog frontend, portfolio
- Time Estimate: 40-60 hours (watch + build)

## 4. MERN Stack Integration

- Combine MongoDB, Express, React, and Node to build full-stack apps
- Use API routes in Express + React frontend with fetch/axios
- Implement user authentication (JWT or session-based)
- Projects: Full blog, notes app, e-commerce site (frontend + backend)
- Time Estimate: 50-80 hours

## Final Tips

## **Full-Stack Web Development Roadmap (JavaScript > Node.js > React)**

- Don't rush - apply what you learn by building small projects after each section
- Break your time: 1-2 hours daily = steady progress
- Join dev communities for feedback and challenges
- Build a GitHub portfolio with your completed projects