Course 6: MERN Authentication & Authorization

■ Overview

End-to-end auth patterns across MERN.

■ Prerequisites

- Express
- React
- MongoDB

■ Outcomes

Implement secure flows with JWT, sessions, OAuth, RBAC.

■ Benefits

This course empowers learners to implement end-to-end authentication and authorization strategies across the MERN stack. They will understand fundamental auth concepts, master JWT and session flows, integrate OAuth providers, and enforce both RBAC and ABAC models. Students will gain expertise in protecting React routes, handling sensitive data securely, managing passwords with modern hashing algorithms, and implementing secure logout and invalidation mechanisms. The course also emphasizes robust testing strategies, ensuring production-ready security implementations.

■ Training Key Features

- End-to-end authentication patterns across MERN stack
- Deep dive into JWT and session-based flows
- OAuth integration with Google & GitHub providers
- Implement RBAC and ABAC security models
- React route protection with guards and loaders
- Password security with bcrypt/argon2 and reset flows
- Secure handling of PII and secrets management
- Logout and invalidation with revocation strategies
- Testing authentication flows with unit and e2e tests
- Industry-ready security practices for production apps

■ Module Breakdown

- Module 1 – Auth Basics ::: identifiers && factors && tokens vs sessions
- Module 2 – JWT Flow ::: access/refresh && rotation && storage strategies
- Module 3 – Session Flow ::: cookies && CSRF && sameSite && httpOnly
- Module 4 – OAuth ::: Google/GitHub providers && PKCE && device code overview
- Module 5 – RBAC & ABAC ::: policy checks on server && client
- Module 6 – Protecting React Routes ::: guards && loaders && suspense fallbacks

- Module 7 – Passwords ::: hashing (bcrypt/argon2) && resets && rate limiting
- Module 8 – Sensitive Data ::: PII handling && secrets management
- Module 9 – Logout & Invalidation ::: server-side revocation lists
- Module 10 – Testing Flows ::: unit + e2e && attack simulations