MERN stack development

Module

Module 1: Introduction to MERN Stack Development

Discover the MERN stack and its components, and set up your development environment. Learn about Git and version control for efficient collaborative development.

Module 2: MongoDB and NoSQL Databases

Dive into MongoDB, a powerful NoSQL database. Explore working with collections and documents, and master querying and manipulating data using MongoDB.

Module 3: Server-Side Development with Node.js and Express.js

Explore the role of Node.js in server-side development and build web APIs using Express.js. Implement CRUD operations with Node.js and Express.js.

Module 4: Front-End Development with React

Get hands-on with React, a popular front-end library. Learn to build reusable components, understand React's core concepts, and handle state and props in React applications.

Module 5: Integrating MERN Stack

Integrate your Express.js backend with the React frontend. Implement API calls from the frontend to the backend and manage authentication and user sessions using JSON Web Tokens (JWT).

Module 6: Building Full-Stack Applications with MERN

Combine React, Node.js, and Express.js to create full-stack applications. Implement authentication and authorization, and explore deployment and hosting of MERN stack applications.

Module 7: Advanced Topics in MERN Stack Development

Master advanced concepts like state management using Redux or Context API. Handle asynchronous operations with middleware such as Redux Thunk and explore additional MERN stack tools and libraries.

Module 8: Handling Errors

Learn effective techniques for testing, debugging, and handling errors in MERN stack applications. Identify and resolve errors to ensure robust and reliable applications.

Module 9: Real-World Project Development

Collaborate on team-based project development and apply agile methodologies using tools like Scrum and Trello. Manage version control and collaborate effectively using Git and GitHub.

Module 10: Final Presentation and Documentation

Showcase your knowledge and skills by presenting your application project. Prepare comprehensive documentation to demonstrate your technical implementation, creativity, and understanding of MERN stack development.