ARYATECHNO

Node Js Training

Topics :
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Module 1: Introduction to Node.js

- What is Node.js?
- Differences between Node.js and traditional server-side languages
- Installing Node.js and setting up a development environment
- Running your first Node.js script
- Understanding the Node.js event loop

Module 2: Node.js Fundamentals

- Understanding JavaScript basics (ES6+ features like let/const, arrow functions, template literals)
- Modules and the CommonJS module system
- File system (fs module) operations
- Global objects and process management

Module 3: Working with NPM (Node Package Manager)

- Installing, updating, and removing packages
- Managing dependencies using package.json
- Using `nodemon` for development

Module 4: Asynchronous JavaScript in Node.js

- Callbacks and callback hell
- Promises and async/await
- Using `util.promisify` for async functions

Module 5: Building an HTTP Server with Node.js

- Understanding the HTTP module
- Handling requests and responses
- Routing and query parameters
- Serving static files

Module 6: Express.js Framework

- Introduction to Express.js
- Setting up an Express server
- Middleware in Express
- Creating routes and handling requests
- Working with request parameters

Module 7: Working with Databases

- Introduction to databases (MYSQL)
- Connecting Node.js with MongoDB using Mongoose
- Performing CRUD operations
- Connecting Node.js with MySQL

Module 8: User Authentication & Security

- Using JWT (JSON Web Tokens) for authentication
- Implementing user login/logout
- Hashing passwords with bcrypt
- Role-based authentication
- Preventing security vulnerabilities (SQL Injection)

Module 9: Building a RESTful API with Node.js

- Understanding REST API concepts
- Creating API routes with Express
- Handling request validation and errors
- Using Postman for API testing