

Backend Development with Node.js & Express

COURSE OVERVIEW

This is an advanced IT course that offers a comprehensive and practical introduction to building scalable, secure, and high-performance server-side applications. It examines the fundamentals of Node.js runtime, asynchronous programming, event-driven architecture, and API development using Express.js. The course covers essential backend concepts including routing, middleware, authentication, error handling, and database integration with both SQL and NoSQL solutions. Delegates will gain practical insights into RESTful API design, performance optimization, deployment strategies, and best practices for building production-ready applications.

WHO SHOULD ATTEND?

This course is ideal for aspiring backend developers, full-stack developers, software engineers who want to specialize in backend technologies using JavaScript. It is also valuable for frontend developers looking to expand their skills into server-side development, as well as IT professionals and tech entrepreneurs who aim to design and maintain robust web applications.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the Node.js runtime environment and event-driven architecture.
- Build and manage backend applications using Express.js.
- Implement routing, middleware, and error-handling mechanisms.
- Design and develop RESTful APIs for scalable applications.
- Integrate applications with relational (SQL) and non-relational (NoSQL) databases.
- Apply authentication and authorization techniques for secure systems.
- Optimize backend performance and manage deployment workflows.
- Develop production-ready applications.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- The in-depth coverage of Node.js fundamentals and asynchronous programming.
- The practical application of Express.js for building server-side solutions and deployment of RESTful APIs.
- Integration with databases like MongoDB and PostgreSQL/MySQL.
- The implementation of user authentication, authorization, and security practices.
- Error handling, testing, and debugging techniques.
- Exposure to scalability, optimization, and deployment strategies.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded