

## Middleware

**Duration – 40 Hours**

### Program Description

This program provides a comprehensive understanding of middleware technologies that facilitate communication and integration between different software applications and systems. Participants will learn the architecture, types, and practical implementation of middleware solutions, enabling seamless enterprise application integration and distributed system management.

### Learning Goals

- Understand the fundamentals and importance of middleware in software architecture
- Learn different types of middleware: Message-Oriented, Database, Application, and Web Middleware
- Gain practical knowledge of middleware components and communication protocols
- Understand integration patterns and best practices for enterprise applications
- Explore security, transaction management, and performance considerations in middleware
- Apply hands-on skills to implement middleware solutions in real-world scenarios

### Course Topics

- Introduction to Middleware and Its Importance
- Types of Middleware: Message-Oriented, Database, Application, Web
- Middleware Architecture and Components
- Communication Protocols and Messaging Systems
- Enterprise Application Integration Patterns
- Transaction Management in Middleware
- Security and Performance Considerations
- Hands-on Implementation and Case Studies

**Modules can be customized to suit client's specific needs and duration accordingly**