

API and Web Service Introduction Course

Course Duration : 8 Hours

Course code : API-WS-935

1. Course Overview

The API and Web Service Introduction Course is designed to provide a foundational understanding of how APIs and web services enable communication between different software systems. This course focuses on the core concepts, architecture, and practical usage of APIs in modern application development.

2. What you'll learn?

- Fundamentals of APIs and web services
- REST vs SOAP architecture
- HTTP methods and request-response cycle
- API design basics
- Introduction to API security
- API testing tools and techniques

3. Target Audience

- Beginners in software development
- Web and mobile developers
- QA testers and automation engineers
- IT professionals and system integrators
- Students and fresh graduates

4. Pre-Requisites

- Basic understanding of web development
- Familiarity with HTTP concepts (recommended)
- Interest in software development
- No prior API experience required

5. Course Content (Modules)

Module 1: Introduction to APIs & Web Services

- What is an API?
- Types of APIs
- Web services overview

Module 2: REST & SOAP Fundamentals

- REST architecture
- SOAP web services
- Key differences

Module 3: API Communication & Data Formats

- HTTP methods (GET, POST, PUT, DELETE)
- Request-response cycle
- JSON and XML formats

Module 4: API Design & Security Basics

- API design principles
- Authentication and authorization
- Security best practices

Module 5: API Testing & Practical Use Cases

- API testing tools (Postman basics)
- Real-world API examples