

## FUNDAMENTALS OF API-BASED INTEGRATIONS

*“Seamlessly Connect Systems with Robust API Knowledge”*

### Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

### Introduction

This course offers a comprehensive foundation in API-based integrations, empowering professionals to understand, design, and implement API connections across platforms and systems. From RESTful services to authentication and error handling, participants will gain the core competencies needed to work with modern APIs in real-world environments.

### Objectives

By the end of this training, participants will be able to:

- Understand API concepts, architecture, and standards
- Work with REST, JSON, and HTTP protocols
- Authenticate securely using OAuth 2.0 and API keys
- Design and consume APIs effectively
- Troubleshoot and test API integrations

## Why Attend

APIs are at the heart of modern digital transformation. Whether you're in IT, development, or product operations, this course enables you to leverage APIs for automation, scalability, and innovation.

## Target Audience

- IT and system integration professionals
- Software developers and engineers
- Product managers and analysts
- Technical project coordinators
- Business professionals interfacing with APIs

## Individual Benefits

- Gain hands-on experience with real API endpoints
- Enhance your ability to automate workflows and integrations
- Boost your technical profile with in-demand API knowledge

## Organizational Benefits

- Improve system interoperability and automation
- Reduce manual workflows through efficient integrations
- Enhance digital service delivery and customer experience

## Instructional Methodology

- Instructor-led theoretical sessions
- Hands-on API exercises using tools like Postman
- Use cases and integration scenarios
- Group discussions and knowledge sharing

## Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable) Training Hours: 07:30 AM – 03:30 PM Daily Format: 3–4 Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

### Day 1: Introduction to APIs

- 07:30 – 09:30 – Module 1: What is an API? Concepts & Architecture
- 09:45 – 11:15 – Module 2: Types of APIs: REST vs. SOAP vs. GraphQL
- 11:30 – 01:00 – Module 3: HTTP Methods, Status Codes & JSON Basics

### Day 2: RESTful API Design

- 07:30 – 09:30 – Module 4: RESTful Design Principles and URI Structuring
- 09:45 – 11:15 – Module 5: Versioning, Pagination, and Filtering
- 11:30 – 01:00 – Module 6: Designing API Endpoints & Using OpenAPI

### Day 3: Security and Authentication

- 07:30 – 09:30 – Module 7: API Security Fundamentals
- 09:45 – 11:15 – Module 8: Authentication (OAuth 2.0, API Keys, JWTs)
- 11:30 – 01:00 – Module 9: Role-Based Access Control & Token Handling

### Day 4: API Testing and Tools

- 07:30 – 09:30 – Module 10: Using Postman for API Requests & Testing
- 09:45 – 11:15 – Module 11: Debugging API Responses and Error Handling
- 11:30 – 01:00 – Module 12: Working with Rate Limits and Retry Logic

### Day 5: Practical Integration and Strategy

- 07:30 – 09:30 – Module 13: Real-World API Integration Scenarios
- 09:45 – 11:15 – Module 14: API Lifecycle Management & Monitoring
- 11:30 – 01:00 – Module 15: Final Integration Project + Certification Ceremony

## Certification

Participants will receive a Certificate of Completion in Fundamentals of API-Based Integrations, recognizing their competency in building and managing API-driven systems.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

### In-House / Customized Training

Interested in running this course for your team?

Please contact us:

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