What is API Testing?

API testing involves verifying that the Application Programming Interfaces (APIs) of software systems meet their functional and performance requirements. It focuses on assessing how well APIs communicate and interact with other software components, ensuring they deliver accurate data, perform reliably, and handle various inputs and outputs effectively. Through API testing, developers can identify bugs, assess security vulnerabilities, and ensure compatibility across different platforms, enabling robust and efficient software integration.

Who are supposed to pursue API Testing?

API testing is typically pursued by software developers, quality assurance engineers, and software testers who are responsible for ensuring the functionality, reliability, and performance of software systems. Additionally, individuals involved in software integration, system architecture, and API design may also engage in API testing to verify that APIs meet their intended specifications and effectively communicate with other components. Overall, anyone involved in the development, testing, or integration of software systems that rely on APIs can benefit from pursuing API testing.

DEMAND?

The demand for API testing worldwide has been steadily increasing due to several factors:

1. Growth of API usage: With the rise of web and mobile applications, the usage of APIs has become ubiquitous. Businesses leverage APIs to connect various systems, share data, and enable seamless interactions between applications. As a result, the need to ensure the reliability and functionality of these APIs through testing has become crucial.

2. Agile and DevOps practices: Agile development methodologies and DevOps practices emphasize continuous integration and deployment (CI/CD), rapid iteration, and automation. API testing fits well within these frameworks, as it allows for early detection of issues, faster feedback loops, and greater automation of testing processes.

3. Microservices architecture: Many organizations are transitioning from monolithic architectures to microservices architectures, where applications are composed of loosely coupled, independently deployable services. APIs play a central role in microservices architectures, facilitating communication between services. Consequently, the need to thoroughly test APIs for interoperability, performance, and reliability has increased.

4. Focus on digital transformation: As businesses undergo digital transformation efforts to modernize their operations and enhance customer experiences, the demand for robust, scalable, and reliable APIs has surged. API testing ensures that APIs meet the requirements of digital initiatives, such as supporting omnichannel experiences, enabling third-party integrations, and facilitating data exchange.

SALARY EXPECTATIONS

SALARY INR LAKHS

12
10
8
6
4
2
0

Entry-Level   Mid-Level   Senior-Level

Globally:

- In the United States, salaries for API testing roles typically range from $60,000 to $120,000 per year for mid-level positions. Senior API testers or test leads can earn salaries upwards of $120,000 per year, depending on location and experience.
- In Europe, API testing salaries vary by country but are generally in a similar range to the United States, although they may be slightly lower in some regions.
- In countries with lower costs of living, such as some parts of Southeast Asia or South America, salaries for API testing roles may be lower compared to India or Western countries, but they can still offer competitive compensation relative to local standards.

TOP COMPANIES HIRING

Infosys

CISCO

DELL

vmware

IBM

ORACLE

WELLS FARGO

Honeywell

WHY AiNS?

"AiNS Computer Institute stands out as the premier choice for API testing courses due to its exceptional faculty and comprehensive curriculum. With industry-leading instructors boasting extensive experience in API testing, students receive top-tier training tailored to meet current industry demands. The institute's commitment to excellence ensures students gain practical skills, enabling them to excel in the competitive field of software testing."

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OUR CERTIFICATION:

ISO course certification offers several advantages:

1. International Recognition: ISO certifications are globally recognized, demonstrating compliance with international standards and best practices.
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5. Risk Management: ISO standards help identify and mitigate risks, ensuring better management of potential threats to the organization.
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7. Competitive Advantage: Certification can give a competitive edge by demonstrating commitment to quality, safety, and environmental responsibility.
8. Legal Compliance: ISO standards often align with legal requirements, ensuring compliance and reducing the risk of penalties or legal issues.
9. Continuous Improvement: ISO certification encourages a culture of continuous improvement, leading to ongoing refinement of processes and performance.
10. Employee Morale: Employees often take pride in working for a certified organization, leading to increased morale and motivation.
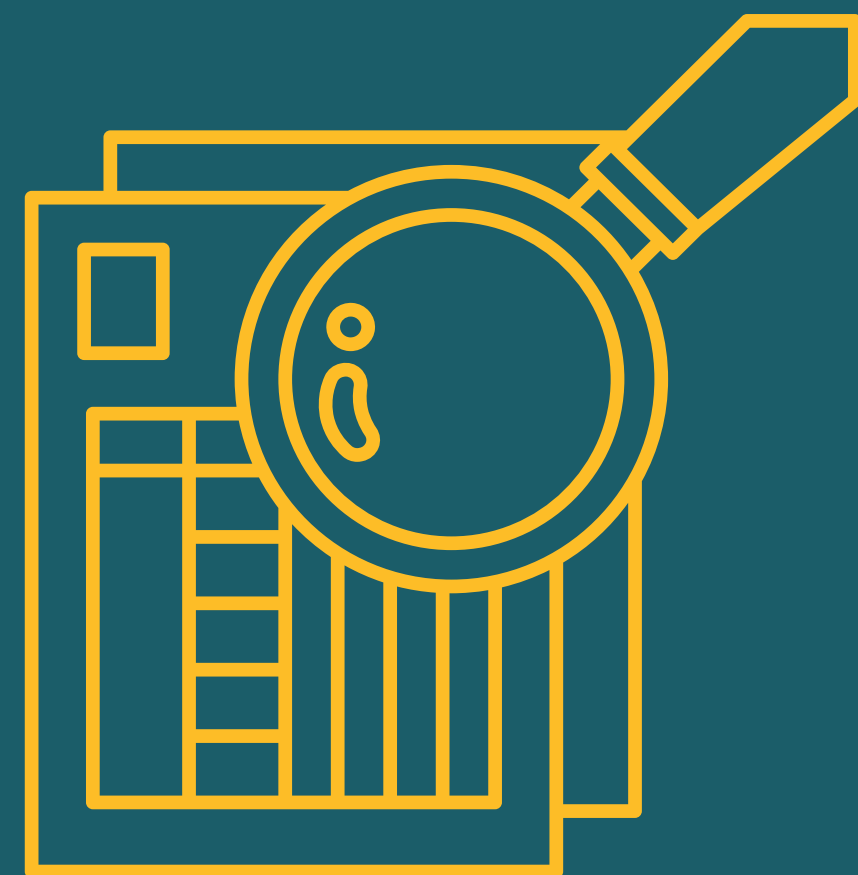
Manual API Testing Syllabus

- Overview of API Testing
- What is API Testing
- Different Tools used in API Testing (like - SOAP UI/Rest Client/Postman etc.)
- Different Methods of WebServices
- All about postman Tools with WebServices:
- Postman – Introduction
- Need of Postman
- Working with Postman
- Postman — Environment Setup
- Standalone Application
- Chrome Extension
- Postman — Environment Variables
- Create Environment
- Environment Variables Scope
- Postman — Authorization
- Types of Authorization
- Authorization at Collections
- Postman — Workflows
- Postman — GET Requests
- Create a GET Request

- Postman — POST Requests
- Create a POST Request
- Postman — PUT Requests
- Create a PUT Request
- Postman — DELETE Requests
- Create a DELETE Request
- Postman — Create Tests for CRUD
- Tests in Postman
- Postman — Create Collections
- Create a New Collection
- Postman — Parameterize Requests
- Create a Parameter Request
- Postman — Collection Runner
- Execute Tests with Collection Runner
- Postman — Assertion
- Writing Assertions
- Assertion for Object Verification
- Assertion Types
- Postman — Mock Server
- Benefits of Mock Server
- Mock Server Creation
- Example Request
- Postman — Cookies
- Cookies Management
- Access Cookies via Program
- Postman — Sessions
- Postman — Newman Overview
- Newman Installation
- Postman — Run Collections using Newman
- Run Collections
- Common command-line arguments for Newman
- Postman — OAuth 2.0 Authorization
-

Other:

- Practicals
- Special handwritten Notes

API Testing(Automation) Syllabus

-Introduction

-Install and setup

-Tour of Postman

-Importing Tests

-Creating and Running Mocks in Postman

-Postman Workspaces

-Newman Runner

-Postman Automation with examples

o Signup Request #

o Signin Request #

o Listing/New Request #

-Mini Project cum Examples

o REST API Testing with Cucumber Using BDD Approach

-How Does Cucumber Work?

o Feature Files

o Step Definition Files

-Setting Up Cucumber Test Framework On Windows

o Installation

   - Cucumber Plug-in Installation in Eclipse

   - Cucumber jars, to run the Cucumber project

o Project Setup

   - Package Structure of Test Project

o Feature File

o Steps Definition Implementation

o Running The Tests

o Reports

         - CucumberTest Result in Html Format

Other:

-Practicals

-Mini Project (lectures with mini project)

-Hand written Notes