

REST ASSURED API TESTING CURRICULUM

Course Description:

Our training course is designed to make you an expert in working with Backend API Testing. Our Industry Experts have more experience in working with Backend Testing and will ensure that you get trained and become experts in Rest Assured API Testing Automation & REST Assured API Test Framework Designing.

REST API Testing is defined as a service that is provided by an application on a particular device or server to another device or client application when installed through communication through the World Wide Web.

The data transfer or any requests will be done as XML or JSON through the help of HTTP OR HTTPS protocol over the application where the response is processed by the client application irrespective of the architecture, technology, and software platform.

Module 1: Introduction

- Course Outcome
- Introduction
- How to reach me anytime and ask questions?

Module 2: Rest Assured Setup

- Java Environment Setup - Mac
- Java Environment Setup - Windows
- Install Eclipse/IntelliJ - Windows
- Eclipse/IntelliJ Installation - Mac

Module 3: Rest API Introduction

- What is API?
- What is Rest API?
- What is JSON?
- REST vs HTTP
- API Request Anatomy

Module 4: Postman Essentials

- Install Postman
- Walkthrough
- Generate API Key
- API Documentation
- Execute GET Request

Module 5: JSON Essentials

- JSON syntax and data types
- Fetch JSON using Groovy's Gpath
- Fetch JSON using Jayway's JsonPath

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- Groovy's Gpath vs Jayway's JsonPath

Module 6: HTTP Essentials

- HTTP concepts : Safe, Idempotent and cacheable
- Http GET
- Http HEAD
- Http POST
- Http PUT
- Http DELETE
- Http OPTIONS
- Http PATCH
- Status Code
- Status Live Example

Module 7: Postman Mock Server

- Setup mock server with multiple examples
- Use mock server to practice all HTTP Methods

Module 8: Java Programming Essentials (OPTIONAL)

- Java Basics
- Control Statements
- OOPs Inheritance and Super Keyword
- Access Modifier
- Encapsulation
- Polymorphism
- Abstraction using Abstract class
- Exceptional Handling
- File Operations

Module 9: Rest Assured Practical

- Automate GET Request - Assert Status Code
- Automate GET Request - Assert Response
- Automate GET Request - Extract Response
- Automate GET Request - Extract Single Field
- What is Hamcrest?
- Hamcrest assert on extracted response
- Hamcrest Collection Matcher

Module 10: Request and Response Logging

- Request and Response logging
- Log if error
- Log if validation failed
- Blacklist Headers

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Module 11: Rest Assured Handling Headers With Practical

- What are Headers?
- Set Mock Environment for Headers
- Multiple Headers In Request
- Multi Value Header
- Response Header Extract and Assert
- Extract Multi value Headers

Module 12: Rest Assured Specifications

- Request Specification
- Response Specification
- Clubbing Request and Response Specification

Module 13: Automate POST, PUT and DELETE Practical

- Practice POST BDD Style
- Practice POST non BDD Style
- Practice PUT Method
- Practice DELETE Method

Module 14: Send Request In Multiple Ways

- Send Request as a file
- Send Nested JSON Object as a Map
- Send JSON Array as a List
- Send Complex JSON as Map and List

Module 15: Rest Assured Practical

- Postman Mock Introduction
- Handling Request Parameters
- Automate Multipart Data Forms
- File Upload And Download Using Rest Assured
- Form URL Encoding
- JSON Schema Validation
- Serialisation and Deserialisation
- Complex POJO Live Practice

Module 16: OAuth Flows

- OAuth Terminology
- Authentication Code Grant Flow
- Implicit Grant Flow
- Client Credentials Grant Flow
- Google OAuth2.0

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- GMAIL Get Profile API Practice
- Send EMAIL API Practice
- Handling Cookies

Module 17: Automation Framework

- Advantages of Automation Framework
- Maven Project Setup
- Organizing Framework Constants
- Project Dependencies Setup
- Building Rest Utilities
- User Timeline Framework Test

Module 18: End-To-End Framework Execution

- Spotify OAuth 2.0 Automation - Create, Get and Update a Playlist
- Running End-To-End Framework Using TestNG
- End-To-End Framework Execution Using Maven
- Allure Reporting

Module 19: Build Management with Maven

- Introduction
- Maven Features and Advantages
- Maven Setup and Installation
- Creating and Importing Maven Project
- Maven Local and Central Repositories
- POM Explanation

Build Lifecycle and Maven Commands

Build Management with Maven Documents

Module 20: Integration With Github

- Create GitHub Repository
- Git Client Various Options
- Commit Code To GitHub Repository
- How To Push Subsequent Changes

Module 21: Integration With CI

Install Jenkins on Windows

Install Jenkins on Mac

Create Automation Jenkins Job

Jenkins Auto Trigger Tests

CI Using GitHub Actions

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Module 22: Placement Guide

- Tips to clear an Interview
- Common Interview questions and answers
- Rest Assured API Testing Interview Questions and Answers
- Resume Building Guide
- Attempt for the related Global Certification Exam
- Earn Credentials and Start applying for Jobs



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