



ADEMIZE SOLUTIONS

Course Outline

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Welcome to our Course

Course covers Basics To Advanced Level With Rest Assured, Postman, Java, TestNG, Framework Implementation From Scratch with rich examples like Jira, Twitter, YouTube, Google Maps API examples.

Learn Everything You Need to Know About REST API Automation including Postman Even If You've Never worked Before on API's.



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What you will learn in this Course

- > By the end of this course, you will get complete knowledge on REST API Automation testing.
- > You will be able to DESIGN and IMPLEMENT structured API AUTOMATION FRAMEWORKS with REST Assured API.
- > In-depth understanding of REST API Automation using RestAssured with real time examples.
- > Thorough knowledge on REST Manual testing tools like POSTMAN with many Practices API's demo.
- > Additional knowledge of generating excellent client reports for API Test execution results.



THE KEY TAKEAWAYS FOR THE COURSE

- ✓ Always be learning
- ✓ Know that you don't know
- ✓ Ask for Help if necessary
- ✓ There's always a solution



Course Outline

REST API Basics and Terminology

- > Introduction to REST API and where it is used in Project Architecture.
- > Real time Usage of API's in industry with Examples.
- > Understanding GET, POST, PUT DELETE Http Crud operations of API.
- > What are Path, Query Parameters & Headers in Rest API.
- > Brush up on Java concepts

Getting started with API Testing using Postman

- > Introduction to POSTMAN and Google Maps API's.
- > Understand Add Place API and execute it through Postman.
- > Understand Get & Delete Place API using GET, Delete http Methods using Postman.
- > Update Place API using PUT http method using Postman.

Rest Assured setup for API Automation Testing

- > Setting up Eclipse and Java with system variables in Windows.
- > Setting up Rest Assured Maven Project with Eclipse installation.
- > Build Rest API Automation Test to Add Place and validate Status codes.

Validating the Rest API Responses

- > Assertions on Json Response Body and Headers through Automated code.
- > Parsing the Json Response body using JsonPath class.
- > Integrating the Multiple API's with common Json response values.
- > Building End to End Automation using GET, POST and PUT Http Methods.
- > Importance of TestNG Assertions in validating the responses.



Course Outline

Diving in Depth-Automating REST API's

- > Understanding Structure of Complex Nested Json and its array notations.
- > Json used in this Section with Queries to solve.
- > Retrieving the Json Array Size and its elements using JsonPath.
- > Iterating over every element of Json Array and accessing elements in it.
- > Retrieving Json Nodes on Condition logic using JsonPath.
- > Real Time example to solve Business logic through Json response.

Handling Dynamic Json Payloads with Parameterization

- > Why Dynamic Json payloads are important to understand.
- > Introduction to Library API.
- > Rest Assured Test for Library API Add Book http method.
- > Sending parameters to payload from Test.
- > Understanding TestNG Data provider for parameterization.
- > Example on Parameterization of API Tests with multiple data sets.

Real world Example-Automating Jira API's

- > Setting up Jira Cloud Account for API Testing.
- > Basic Authentication Mechanism to authenticate for Jira API's.
- > Understanding Contract to create Bug in Jira using API in the Postman.
- > How to send files as attachment to the Post API call for associated Jira Bug.
- > Rest Assured Automation test to create Bug and send files as attachment for Jira.

Handling oauth 2.0 Authorization Grant type - Client Credentials

- > Introduction to OAuth 2.0 Client credentials Grant type.
- > Practical example on OAuth 2.0 with its contract details for testing.
- > Postman testing for the OAuth related API's and generating response.
- > Rest Assured automation script for OAuth end to end API's test.



Course Outline

Deserialization using POJO classes with Rest Assured

- > What is Serialization and Deserialization in Rest Assured.
- > Libraries needed to support Serialization in Rest Assured.
- > Strategies in Parsing Complex nested Json using POJO classes.
- > Creating POJO classes for the real time Nested Array Json.
- > End to end Automation examples using POJO Deserialization.
- > Solving Complex Queries from Json with simple POJO methods.

Serialization of Input Payload using Google Maps API Example

- > Build POJO classes for constructing Json Payload to API Rec 12-19-19 2.
- > Complete End to end Test case with Serialization Implementation Rec 12-19-19 34.

Understand Request and Response Spec Builders in Rest Assured

- > Significance of Spec Builders in Rest Assured Rec 12-19-19 5(builderDoc).
- > Practical Example in implementing Spec Builders and optimize code Rec 12-19-19.

End to End ecommerce API example with Automation Concepts

- > Understand Ecommerce API Contract and build manual API's in Postman.
- > Create Rest Assured automation for Login Call to generate Auth token.
- > Automate Post calls which have form parameters and attachments using Rest Assured.
- > Implement POJO Classes to build nested Json for Create Order for Product added.
- > Script implementation with Delete Product using Path parameters & HTTPS relaxed.



Course Outline

Cucumber BDD API Framework Development from Scratch

- > CheckPoint before starting Framework lectures.
- > Cucumber BDD overview and its related terminologies.
- > Creating Maven project with Cucumber Rest Assured Dependencies.
- > Building Test Runner and Step Definition files for Add Place API Feature Test.
- > Implementing Real code in Step Definition files with reusable components.
- > Running the Test in Cucumber Standards with necessary Configuration changes.
- > Building Utility Files and Implement Logging feature in Framework.
- > Implement Mechanism to drive Global property values from Properties file.
- > Data Driven Testing Mechanism for API Tests using Cucumber example feature.
- > Parameterize API Test with multiple Data sets using Cucumber Framework features.
- > What are Enum classes? How Framework can utilize the Enum concepts.
- > Removing Hardcoded resource details with Enum class Methods.
- > Build End to End Testcase with Add and Delete Place in Framework Standards -1-6
- > Running the Complete Framework using Maven commands 23/1.
- > Generate Excellent Cucumber HTML reporting with additional Plugins -23/2.





Course Outline

Cucumber BDD API Framework Development from Scratch – 2

- > Introduction to Jenkins CI tool.
- > Integrating the API Framework into Jenkins and triggering with new job setup 24.
- > Setting up Parameterized Jenkin Job for API Framework with multiple Tags.

Understanding Version Control System GIT

- > Introduction to GIT.
- > Importance of Github and its uses.
- > Creating Git config and repositories.
- > How to push code to remote repository.
- > Understanding Staging and commit in git.
- > Add remote repository and push the committed code.
- > End to end working example on Git commands -1-2.
- > Importance of Branching in GIT.



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QUALITY
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About Ademize

Learn . Grow . Succeed

Ademize Solutions is a US based IT Development & IT Training company committed to provide end-to-end IT Development Solutions and IT Training for becoming best IT Engineer.



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