

## Web Services- API Testing

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Duration-4-5 –Weekends

### Course Content

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#### 1. Introduction to JAVA basics

- Objects and Classes
- OOPs Concepts in Java
- String handling
- Collections Framework
- JUnit

#### 2. Web service Basics

- What is web service?
- Web service Example
- Different types of Services: SOAP & REST

#### 3. Setup Environment

- Setup SOAPUI Free Version
- Setup SOAPUI Pro Version
- Free SOAP Web services
- Difference between SOAP and Rest Services
- Advantage of Rest Services over SOAP Services
- UDDI

#### 4. Jump into SOAP UI

- What is SOAPUI
- SOAPUI work hierarchy
- First SOAP Test Case/SOAP Request test step

#### 5. Properties At Different SOAPUI Level

- Global properties
- Project level property
- TestSuite level property
- TestCase Level Property

#### 6. Test steps in SOAPUI

- Delay Test Step
- Groovy Script test step
- Property test step
- Manual Test Step
- Run Test Case Step
- Assertion Test step

#### 7. Parameterization/Data driver test cases

- Data Source-Data source Loop using Grid
- Data Source looping using text file
- Data Source looping using excel file
- Data Sink Step
- Data source Loop using Data sink

#### 8. Reporting in SOAPUI/Pro

#### 9. Command Prompt Execution

- Run Functional suite from command prompt
- Run Load test suite from command prompt

#### 10. Groovy Programming-Basic to Advance

- Groovy coding environment setup
- Class and objects
- Groovy Basics
- Groovy Programming KickOFF
- Programming Exercise-Number Swapping
- Groovy Condition Handling
- Programming Exercise-Check Even Odd
- Groovy: Arrays
- Groovy: For Loop
- Groovy: While Loop
- Groovy: For Each Loop
- Programming Exercise: Prime Number
- Programming Exercise: Fibonnaci series
- Groovy String Handling

#### 11. XPATH and XQUERY Assertion

- XPATH Assertion
- XQuery Assertion in soapUI

#### 12. Reporting in SOAPUI

- Generating html reports in SOAPUI
- PDF Report SOAPUI Pro

#### 13. Basics of Restful services

- What is Web service
- Request and Response
- What is Rest
- HTTP Methods
- Request and Response Methods

#### 14. Using Postman for Testing

- Deploying the Test Application in Tomcat
- Application under Test
- Testing GET end point

#### 15. Query Parameter

- Handling query parameter from code
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## **16. Introduction to Rest Assured**

- Introduction to course material
- Setting up the Rest Assured Framework
- Rest assured with BDD Framework
- Coding style

## **17. HTTP Get Method using Rest Assured**

- Writing GET Method
- Handling Response
- Handling and validating response status code
- Setup using rest assured environment variable
- Creating GET Request with custom headers
- Validating Response Content
- Validating using XMLpath class
- Validating using JsonPath Class
- Handling query parameters

## **18. HTTP Put and Delete method using Rest Assured**

- Writing the PUT method
- Writing Delete Method

## **19. Working with Twitter API**

- Introduction and creating app for Twitter
- POST Status-Update on Twitter
- Get the list of followers
- Deleting status update from Twitter wall

## **20. Framework-Behaviour Driven development with Rest Assured**

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