# API Testing

**Duration-4-5 –Weekends**

**Course Content**

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

## 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