**REST API Automation testing from scratch-(Rest Assured java)**

Lectures: **110** Video: **19.5 hours**

**Section: 1 - REST API Basics and Terminology**

1. Introduction - <http://rest-assured.io/>

2. How to reach Trainer for Doubts in the course? [rahulonlinetutor@gmail.com](mailto:rahulonlinetutor@gmail.com)

3. Introduction to REST API - 11:04  
a set of operations where we get response for a request.

4. Understanding how REST API architecture works - 8:17  
Google Map API – Place Search

Document.pdf

5. What is BaseURL, Resources in REST API? - 12:37

6. Understanding GET, POST, PUT, DELETE requests - 10:14

7. What are headers and cookies in rest request? - 6.49

**Section: 2 - Getting started with REST API Testing**

9. Understanding google place Search API for scripting - 11:00

10. Introduction to POSTMAN -Manual testing client for REST API - 14:30

<https://developers.google.com/places/web-service/get-api-key>

AIzaSyAGezljt6qSQM\_gFwSRhrh2hl-zEtgniyQ

11. Important Note on Google Maps API - Library API.postman\_collection.json

Library API.docx

12. Adding new place in Google Maps with google API - 12:52

ADD\_DeletePlaceAPIs.docx

13. Validating responses with POSTMAN client - 11:55

ADD\_DeletePlaceAPIs.docx

GoogleMaps.postman\_collection.json

**Section: 3 - Rest Assured setup for API Automation**

14. Introduction on Test API's - 9:11

15. Setting up Test Project with RestAssured API's - 8:43

Document 1.pdf

<https://github.com/rest-assured/rest-assured/wiki/Downloads>

Download rest-assured, json-path and xml-path dist zip files and extract these 3 files and their inside folders.

In your Java project add all these external libraries.

16. Understanding given tag for passing requests - 15:06

BaseURL:

given()

Request Headers  
 Parameters  
 Request Cookies

when()

get(resource)  
post(resource)  
put(resource)

then()  
 assertions to validate response

extract()

**Section: 5 - Validating the Rest API Responses**

17. Validating the body of first Json response - 17:00

<https://jsoneditoronline.org/>

18. Examples on validating response headers and status codes - 14:47

19. Understanding query parameters on sending request - 16:03

Request Parameters:

Path, Query and Header

**Note:** Path parameter is not available for Post method.

**Section: 6 - Diving in Depth-Automating REST API's**

20. Automating POST request with payload - 6:57

21. Grabbing the response body into String for Advance validations - 11:45

Response res = given()…extract.response();

String responseString = res.asString();

JsonPath js = JsonPath(responseString);

String placeId = js.get(“place\_id”);

22. Passing the response values into subsequent requests - 8:39

23. Optimizing the scripts by centralizing the data - 12:39

Keep data like baseURL in property file

24. Data Driven testing best practises - 8:57

Create separate file e.g. resource.java where write static method to return required data.

**Section: 7 - Automation Utilities for Parsing the Json/XML responses**

25. Validating Advanced xml responses - 15:35

26. Shortcut methods to convert Raw data to xml/Json - 13:57

27. Parsing Json response to extract values - 13:53

28. Logging feature to debug automation scripts - 12:14

**Section: 8 - Real world Example-Automating Jira API's**

29. How Jira API Works? - 11:03

Downloaded Jira API from <https://www.atlassian.com/software/jira/download>

31. Cookie Authentication API for Jira requests - 16:25

32. Jira GET, POST API Scripting for creating bugs - 14:09

33. End to end Solved examples on automating Jira API - 16:01

34. Adding comment API using POST and PUT - 14:34

35. Jira API scripting examples with response validations - 7:01

36. Code download - code8.txt

37. New examples Added

**Section: 9 - Real world examples - Twitter API Automation**

38. Introduction to Twitter API - 10:31 (Twitter API Testing Workflow.docx)

39. Understanding OAuth Authentication Mechanism - 6:40

40. Retrieve Tweets from the Account with API's - 10:37

41. Publish Tweets to your account with the API calls - 11:23

42. Delete the Tweets from API - 9:14

**Section: 10 - OAuth Authentication setup for API Tests**

43. OAuth Authentication setup for Rest Assured Scripts - 14:07

44. Scripting Exercises on Twitter API -1 - 11:20 (code.txt)

45. Scripting Exercises on Twitter API -2 - 7:11 (code.txt)

46. code download - code.txt

**Section: 11 - REST API Framework Learning Plan**

47. Learning Plan - 9:46

**Section: 12 - Framework Phase 1- Maven- Build Management tool**

48. Importance of Maven in Framework development - 10:58

49. Installing and configuring Maven - 11:04

50. Understanding Terminologies of Maven - 15:53

51. Creating Maven Project and importing into eclipse - 11:05

52. Understanding POM.xml file and its dependencies - 13:10

53. Importance of surefirePlugin in executing Tests - 13:08

54. Integration of Testng with Maven - 12:28

55. Switching the Tests with Maven profiling - 10:41

**Section: 13 - Framework Phase 1- Jenkins- Continuous Integration Tool**

56. Importance of Jenkins in Test frameworks - 10:42

57. Install and configure Jenkins - 10:45

58. Configuring Jenkin Settings and Workspace - 12:18

**Section: 14 - Framework Phase 1 - TestNG Reports for Jenkin Jobs**

59. Testng Reporting Plugin into Jenkin jobs - 17:12

**Section: 15 - Framework Phase 1- Logging Framework - log4j**

60. What is log4j? its usage in Rest API framework - 9:01

61. Importing log4j into Eclipse project - 14:29

62. Importance of log4j xml file - 10:52

63. Understanding the xml file to control logging in Testcase - 14:51

64. Testcase logging with log4j example-1 - 16:29

65. Testcase logging with log4j example continued... - 6:35

**Section: 16 - REST API Framework development from scratch Part -1**

66. Converting Project to TESTNG framework - 13:48 (Info.txt)

67. Creating Maven REST API test Project - 10:35 (Info.txt)

68. End to end testing API's on Maven Project - 12:03 (Info.txt)

69. Generating reports and creating BAT file - 12:13 (Info.txt)

70. Download full project code - RESTAssuredTest.zip

**Section: 17 - REST API Framework development from scratch Part -2**

71. Integrating Log4j into Rest API Tests - 13:50

72. Configuring and generating log file for the tests - 13:53

73. Importance of Global environment variables in Framework - 16:46

74. Creating Modules to drive the data into Tests - 15:14

75. Organizing files and folders as per test structure - 11:11

76. Extent Reports in generating Test execution results - 15:05

77. Integrating Rest API tests into JENKINS CI tool - 11:13

78. code download - RESTAssuredTest(1).zip

**Section: 18 - Excel Integration with Rest Assured Test**

79. what is Apache POI API & Download Instructions - 10:09

80. Strategy to Access Excel Data - 15:18

81. Getting rows and its cells from Sheet - 15:16

82. Retrieving Data from Excel based on condition - 8:48

83. Practise Exercise- Excel Driven testing -1 - 11:45

84. Practise Exercise- Excel Driven testing -2 - 10:59

85. Practise Exercise- Excel Driven testing -3 - 10:00

86. Code download - ExcelDriven.zip

87. Introducion to Library API - 7:48

88. Library APi Postman and Rest Assured examples - 10:56

89. Conversion of HashMap into Json - 14:11

90. Excel Integration with Rest Assured Test - 15:22

91. Code download - RESTAssuredTest.zip

**Section: 19 - TESTNG Framework component-(optional)**

92. Introducion to TestNg Framework - 3:46

93. Environment setup in eclipse - 4:25

94. TestNG Annotations basics - 11:34

95. Annotations discussion continued.. - 13:09

96. TestNg Annotations conclusion - 25:12

97. Prioritizing the testcases with TESTNG - 7:46

98. Enabling and disabling the scripts with testng controls - 6:25

99. Importance of TESTNG xml file - 8:15

100. Java first program basics - 8:34

**Section: 20 - Core Java basics**

101. Java program principles - 8:32

102. Classes, objects in Java - 17:53

103. Strings in Java - 15:54

104. String Practise exercises - 9:22

105. What is Interface? - 11:22

106. How Java classes can take advantage of Interface? - 10:10

107. Usage of Inheritance in Java - 10:58

108. Practical examples on types of inheritances - 7:04

109. Introduction to Arrays - 8:56

110. Single dimensional and Multidimensional arrays usage - 12:37