SoapUI/SoapUIPro – It is a tool to test webservices.

Initially created to test Soap based webservices but later they added features to test Rest APIs.

Automating webservices:

SoapUI – Tool

HttpClient, RestAssured, Chakram – Frameworks where we write code to test RestAPIs

What do you need in order to test webservices?

Soap- WSDl or wsdl url

Specification documents/wiki links -explain functionalty and details of mandatory/optional parameters in request and response, what operations are supported.

Authentication details.

How to test web services or what kind of testcases you come across?

Functionality Testing:

status codes- 200(get/put/delete), 404(resource not found), 201(post), 400(bad request),

202, 204,500(internal server error)

header information- content type, content length

actual response- element presence/value in response, data count, data order

valid/invalid inputs/ boundary values

authentication test

EndPoint Testing

Security Testing

LoadTesting

End-End Testing:

FunctionaltyTesting, security testing, load testing, database test

Post followed - post followed by DB query (record is created with correct data)

or

Post followed by get request.

Payload – Actual body of the response or request

request payload

response payload

generally payload - response payload

WebService request or response consist – Header, authentication, actual body

CRUD operations :

TestSuite- one or more TestCases

TestCase- Different TestSteps

Datadriven testing- DataSource , DataSourceLoop

TestSteps:

SoapRequest/RestRequest

JDBC Request-

oracle – ojdbc jar should be copied to soap ui installation folder/ lib

Properties – to load properties from external file - generally used to load project specific properties from a file and use it in multiple test steps wherever required.

PropertyTransfer- Transfer data from one test step to other test step.

Directly set property values to request: ${#TestCase#token}

Generally when we are testing dependency in webservices

eg: response of one service acts as request to other service

response of first create service request- orderid/session id

orderid/sessionid is request data to get service

Groovy:

https://www.soapui.org/scripting---properties/scripting-and-the-script-library.html#2-Groovy-Script-Library

<https://www.soapui.org/functional-testing/working-with-scripts.html>

https://www.soapui.org/scripting---properties/scripting-and-the-script-library.html

https://github.com/SmartBear/soapui-groovy-examples