

Module - 1 Basics of API

Lesson 1: Intro to API Testing

- What is an API
- Who is the end user of an API?
- Why is it important to test the API?
- Tools for viewing APIs— Web Dev Tools (Chrome and Firefox) and Proxies

Lesson 2: Postman Tool

- Postman Installation
- Basic Requests
- Importing Requests
- Creating Collections

Lesson 3: API Automation in Postman

- Basic tests
- Data-driven tests
- Advanced Tests

Lesson 4: Introduction to SOAP services

- How SOAP is different to REST
- SOAP UI Tool features
- Configuring the wsdl
- Request and Response
- Assertions within the tool

Module - 2 API Automation

Lesson 5. Setup Project

- Download and Configure Maven
- Setting the env variables
- Setting up the Maven Project
- Dependencies to setup RESTful APIs

Lesson 6. Get Request

- What is HTTP protocol
- What is HTTP verb GET
- How to automate GET request using REST assured library
- What is request object
- What is Response object
- Asserting GET response
- Status Code vs Status Line

Lesson 7. Query Parameter

- QueryParam1 / QueryParam2
- How to automate RESTful parameters with query parameters

Lesson 8. JSON Creation

- What is JSON
- Dynamically constructing the request body using JSON
- How to construct JSON using Java
- Code Beautify and its purpose in verifying the JSON requests and responses

Lesson 9. JsonPath

- Using library Jayway JSONPath
- Adding Dependencies and configuring
- How to use JSONPath Evaluator
- How to traverse through every element within a JSON array
- How to retrieve the JSON Array elements having some specific values
- Programmatically how to retrieve the JSON Path
- Example on fetching data from JSON responses

Lesson 10. POST Request

- What is POST http verb
- How to send POST request using API
- Asserting the response body
- How to handle POST response
- How to Programmatically evaluate the Status code and Status Line
- Traversing a locally saved .json file

Lesson 11. Logging in RESTful API

- What is Logging
- How to log Query parameters
- How to log Header information
- How to log every single parameter in request / response objects

Lesson 12. PUT Request

- What is significance of PUT request
- How to extract sessionId from a request
- How to use a common sessionId in subsequent requests

Lesson 13. Automating Axone Shop

- How to automate E2E API application
- How to use Swagger tool to understand API
- How to use CURL commands
- How to try the HTTP operations from Swagger
- Automating the Order Counts and Orders APIs

Lesson 14. Automating Post Orders Controller

- Asserting the response
- How to fetch specific element from response
e.g. order Number from the Response object

Lesson 15. PATCH Request

- What is the usage of PATCH request?
- How to update the payload of an existing data using PATCH
- Asserting the response
- How to verify the specific element from response has updated or not

Lesson 16. Automating E2E application

- Difference between PUT and PATCH
- How to update the payload using PATCH request.
- Asserting the response.

Lesson 17. Delete Request

- How to automate a DELETE request
- How to fetch list of specific elements from each node
- How to traverse the list of elements
- How to assert the response

Lesson 18. End to End Framework

- BDD cucumber
- TestNG
- Reporting the outcomes using Extent Report 4.0
- Test Listeners
- Common Framework for automating E2E API automation