

Web Services API Automation Testing

1. API & Web Services Introduction
 - a. Difference between API & Web Services
 - b. Difference between REST & SOAP
 - c. Different HTTP Calls GET/POST/PUT/PATCH / Delete

2. POSTMAN
 - a. Introduction to POSTMAN
 - b. POSTMAN installation
 - c. Creating API Test Cases
 - d. Working with GET, POST, PUT, PATCH& DELETE Calls
 - e. Calling REST API
 - f. PATH & Query Parameters
 - g. Set Headers
 - h. Working with JSON / XML Payload
 - i. Verify Response Codes (2XX, 3XX, 4XX, 5XX)
 - j. Verify JSON / XML response messages
 - k. Working with Collections & Folders
 - l. Publishing collections
 - m. Working with GET, POST, PUT, PATCH& DELETE Calls under collections
 - n. Different Environments (Locals & Globals)
 - o. Batch Execution
 - p. Working with API Documentation
 - q. POSTMAN Console & Logs
 - r. Test Cases in POSTMAN
 - s. Monitors in POSTMAN
 - t. Mock Servers
 - u. Working with Workspaces
 - v. Different Authentications

3. NEWMAN
 - a. Introduction to Newman
 - b. Newman installation
 - c. Exporting POSTMAN scripts
 - d. Exporting environments
 - e. Commands used in Newman

- f. Generating HTML reports
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- 4. SOAPUI
 - a. Introduction to Newman
 - b. SOAPUI Installation
 - c. Types of Testings done using SOAPUI
 - d. Working with SOAP
 - e. Working with REST
 - f. Create Project, Test Suite & Test Cases
 - g. SOAP & REST Assertions
 - h. Executing Test cases (Sequential & Parallel)
 - i. Document Generator
 - j. Properties
 - k. Different levels of properties
 - l. Properties Transfer / Value Transfer
 - m. Groovy Scripting
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- 5. SOAPUI PRO (Ready API)
 - a. Configuring Ready API
 - b. Working with Excel Sheets
 - c. Working with Text files
 - d. Data Generators
 - e. Grid
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- 6. SWAGGERS
 - 7. RESTASSURED WITH TestNG
 - a. Introduction to RESTAssured
 - b. BDD Approach
 - c. Non-BDD Approach
 - d. Creating MAVEN Project
 - e. RESTAssured Configuration
 - f. Different HTTP Calls (GET, POST, PUT, PATCH & DELETE)
 - g. Sending request with Authorization Codes (Basic, OAUTH 2.0???)
 - h. Working with XML files
 - i. XML file validations
 - j. Root Settings
 - k. Multiple ways of reading responses
 - l. Response Headers validations

- m. Cookies validation
 - n. Specification Builder (Request & Response)
 - o. Different logging mechanisms
 - p. Serialization concept using POJO
 - q. Creating common utilities to send Request
8. GITHUB
- a. Introduction to GIT HUB
 - b. Difference between GIT & GIT HUB
 - c. GIT Configuration
 - d. Creating new repository
 - e. PUSH Code into repository
 - f. PULL Code from repository
9. API FRAMEWORK
- a. What is a Framework?
 - b. Advantages of Framework
 - c. Various components in Framework
 - d. Building Framework from scratch
10. JENKINS through DOCKERS (CI / CD)
- a. What is Continues Integration (CI) & Continues Deployment (CD)
 - b. Introduction to Dockers
 - c. Advantages of Dockers
 - d. Configuring Dockers
 - e. Introduction to JENKINS
 - f. Advantages of JENKINS
 - g. Configuring JENKINS
 - h. Executing Test Cases using JENKINS