Webservices\ API

Web Services Concepts
- What are Web services?
- SOAP Protocol Explanation
- Advantages and Disadvantages of SOAP
- REST Protocol Explanation
- Advantages and Disadvantages of REST
- Challenges in API\Webservices testing

REST API TESTING
- REST API Basics and Terminology
- Introduction to REST API
- Understanding how REST API architecture works
- What is Base URL URI and Resources in REST&API?
- Understanding GET, POST, PUT, DELETE etc.
- What are headers and cookies in rest request?
- Understanding how to create request
- Detail explanation about response
- Detail explanation about Status codes 1XX, 2XX, 3XX etc.

JSON Overview
- JSON creation explanation
- JSON supported data types
- JSON reading and storing in Java classes
- Automation Utilities for Parsing the Json
- Files using GSON\JACKSON

API\Webservices manual test through POST MAN Tool:
- Introduction of Postman tool
- Installation of postman tool
- Difference between Standalone and Chrome extension
- Execution of requests and Validation responses with POSTMAN

API\Webservices Automation through Rest assured Tool
- Introduction of Rest Assured tool
- Difference between HTTP client and Rest Assured Tool
- Rest Assured tool integration with JAVA project
- Automation of GET, POST, PUT and DELETE requests
- Examples on validating response headers and status codes
- Optimizing the scripts by centralizing the data

Jenkins Integration with Webservices project

- Overview of CI Tools
- Introduction about Jenkins Tool
- Introduction about Continuous integration
- Installing Jenkins tool
- Creating Jobs in Jenkins tool
- Scheduling Jobs for timely Execution
- Integration with Webservice Scripts and Running Scripts
- Configure mail notification in Jenkins

Automation Reports and Logs

- Importance of Reporting in Test automation
- Different types of Reports and Logs
- Creation of HTML Report using Test NG
- Print Logs using Log4j
- Advanced HTML reports creation using Extent report.

Version Control Tools

- Overview Version Control Tools
- Importance of Version Control Tool
- Git Tool Setup in Machine
- Hosting Automation project in Git Hub
- Integration of Git Hub Project with Jenkins