

API Testing

Prerequisites: Knowledge of API Programming and testing

Tool Covered: Postman, Rest Assured, SOAP UI

Module 1: Java Basics

- Setting up Java
- Data Types and Operators
- Control Statements
- Arrays and Strings
- OOPS- Class , Object, Method and Constructors
- “this” Keyword
- “static” Keyword
- “super” Keyword
- “final” Keyword
- Inheritance and Interfaces
- Exception Handling
- Java Array Lists and HashMap

Module 2: Overview of API Testing

- Client Server Architecture
- What is API and API Testing?
- Difference between API Testing and Unit Testing
- Overview of Web Services
- HTTP Structure
- HTTP Methods
- Status Codes

Module 3: Testing API's using Postman Tool

- Overview of Postman Tool
- Setup and Installation
- Basic HTTP requests in Postman
- Create Dummy API's
- Basic of JSON and JSON Path
- Validating Responses in Postman and JavaScripting
- Postman Scripts and Variables
- Chaining Requests
- Data Driven Testing Using JSON and CSV Files
- File Upload and Download API
- Authorization Types
- cURL
- Validating XML Response

- Converting XML Resposne to JSON
- Documentation and Publishing

Module 4: Web Services Testing with SOAP UI and Ready API Tools

- Introduction to SOAP UI
- Installation of SOAP UI
- SOAP UI Features
- Assertations in SOAP UI
- SOAP UI Properties
- Property Transfer
- Data-Driven Testing
- Data Driven Testing using Multiple Data Sources in SOAP UI Pro (Ready API)

Module 5: API Testing using Rest Assured

- Environment Setup and Http Methods
- Create Request PayLoad(Request Body)
- Types of Parameters, Headers , Cookies and Logging
- Parsing JSON Responses
- Parsing XML Response
- File Upload and Download API
- JSON & XML Schema Validations
- Serialization and DE-Serialization
- Authentication Types
- API Chaining

Module 6: Web Service / API Testing FAQs