



API TESTING

MANUAL & AUTOMATION
POSTMAN & REST ASSURED
WITH AI



**Industry-Relevant
Training**



**Expert
Trainers**



**Hands-on
Projects**



**100% Placement
Assistance**

API TESTING FUNDAMENTALS

- > API TESTING IN THE SDLC/STLC
- > CLIENT-SERVER ARCHITECTURE
- > REST VS SOAP
- > API ENDPOINTS, URI, URL & URN
- > HTTP & HTTPS
- > HTTP METHODS & IDEMPOTENCY
- > HTTP REQUEST STRUCTURE — HEADERS,
- > PARAMETERS & BODY
- > HTTP RESPONSE STRUCTURE & STATUS CODES
- > JSON & XML
- > API TESTING TYPES
- > API TESTING APPROACH
- > AUTHENTICATION & STATELESSNESS
- > API TESTING TOOLS
- > API TESTING CHALLENGES

POSTMAN API TESTING

- > INTRODUCTION TO POSTMAN & ITS ROLE IN API TESTING
- > POSTMAN INSTALLATION, SETUP & WORKSPACE CONFIGURATION
- > POSTMAN INTERFACE — COLLECTIONS, REQUESTS & TABS
- > CREATING & ORGANIZING COLLECTIONS
- > CREATING AND SENDING API REQUESTS
- > GET, POST, PUT, PATCH & DELETE REQUESTS
- > REQUEST PARAMETERS — PATH, QUERY & HEADERS
- > REQUEST BODY — FORM-DATA, X-WWWFORM
- > URLENCODED & RAW JSON
- > UNDERSTANDING & ANALYZING API RESPONSES
- > VARIABLES & ENVIRONMENTS
- > AUTHENTICATION & AUTHORIZATION IN POSTMAN
- > POSTMAN SCRIPTS — PRE-REQUEST & TEST SCRIPTS
- > RESPONSE ASSERTIONS & VALIDATION

ADVANCED POSTMAN & API TESTING

- > JSONPATH & RESPONSE DATA EXTRACTION
- > API CHAINING USING POSTMAN
- > DYNAMIC VARIABLES IN POSTMAN
- > DATA-DRIVEN TESTING WITH CSV & JSON
- > COLLECTION RUNNER
- > IMPORT & EXPORT COLLECTIONS
- > MOCK SERVERS & API DOCUMENTATION
- > HEADERS, COOKIES & SESSION MANAGEMENT
- > NEGATIVE API TESTING
- > ERROR HANDLING & RESPONSE VALIDATION
- > PAGINATION, FILTERING & SORTING
- > FILE UPLOAD & DOWNLOAD TESTING
- > NEWMAN & CLI EXECUTION
- > POSTMAN REPORTING & CI/CD INTEGRATION
- > REAL-TIME API TESTING PROJECT

REST ASSURED FUNDAMENTALS

- › REST ASSURED INTRODUCTION & ROLE IN API AUTOMATION
- › REST ASSURED PROJECT SETUP — MAVEN/GRADLE & DEPENDENCIES
- › GIVEN-WHEN-THEN SYNTAX & REQUEST SPECIFICATION
- › GET, POST, PUT, PATCH & DELETE REQUESTS
- › PATH & QUERY PARAMETERS IN REST ASSURED
- › REQUEST HEADERS & COOKIES
- › REQUEST BODY — HASHMAP, JSONOBJECT & POJO
- › STATUS CODE & HEADER VALIDATION
- › RESPONSE BODY VALIDATION
- › JSONPATH & RESPONSE DATA EXTRACTION
- › SERIALIZATION & DESERIALIZATION (POJO MAPPING)
- › LOGGING REQUESTS & RESPONSES
- › BASIC AUTHENTICATION & BEARER TOKEN AUTHENTICATION

ADVANCED REST ASSURED API TESTING

- › OAUTH & TOKEN-BASED AUTHENTICATION
- › JSON & XML PARSING IN REST ASSURED
- › JSON SCHEMA VALIDATION
- › CONTRACT VALIDATION BASICS
- › API CHAINING ACROSS MULTIPLE REQUESTS
- › DYNAMIC & RANDOM TEST DATA WITH FAKER
- › DATA-DRIVEN TESTING (TESTNG DATAPROVIDER/EXTERNAL FILES)
- › FILE UPLOAD & DOWNLOAD TESTING
- › NEGATIVE TESTING & ERROR HANDLING
- › PAGINATION, FILTERING & SORTING
- › DATABASE VALIDATION FOR API RESPONSES
- › CUSTOM ASSERTIONS & HAMCREST MATCHERS
- › EXCEPTION HANDLING IN AUTOMATED TESTS
- › REUSABLE REQUEST/RESPONSE SPECIFICATIONS
- › REUSABLE UTILITY METHODS & HELPER CLASSES

REST ASSURED FRAMEWORK, CI/CD & PROJECT

- › FRAMEWORK ARCHITECTURE & DESIGN PATTERNS
- › FRAMEWORK PROJECT STRUCTURE
- › CONFIGURATION & PROPERTIES MANAGEMENT
- › TEST DATA MANAGEMENT STRATEGIES
- › TESTNG INTEGRATION & TEST SUITE MANAGEMENT
- › PARALLEL TEST EXECUTION
- › REPORTING — EXTENT REPORTS/ALLURE
- › CI/CD INTEGRATION FOR API TESTING
- › JENKINS INTEGRATION
- › GITHUB ACTIONS INTEGRATION
- › COMMAND-LINE TEST EXECUTION
- › LOGGING & DEBUGGING IN THE FRAMEWORK
- › REAL-TIME API AUTOMATION PROJECT
- › END-TO-END API TESTING WORKFLOW
- › FRAMEWORK BEST PRACTICES

MODULE 7: AI-POWERED API TESTING

- > INTRODUCTION TO AI IN API TESTING
- > AI-ASSISTED API TEST CASE & TEST DATA GENERATION
- > AI-ASSISTED API REQUEST & RESPONSE ANALYSIS
- > AI-ASSISTED API TEST SCRIPT GENERATION -POSTMAN & REST ASSURED
- > AI-POWERED API TEST FAILURE & ROOT CAUSE ANALYSIS
- > AI-ASSISTED API DOCUMENTATION & TEST SCENARIO GENERATION
- > AI-POWERED API TEST OPTIMIZATION & REGRESSION SELECTION
- > REAL-TIME PROJECT: AI + POSTMAN/REST ASSURED API TESTING

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