

Week 1: API Test Automation (Postman + Python)

Week 1 Goals:

- Understand what an API is, how it works, and why it needs to be tested.
- Perform basic and advanced API tests using Postman.
- Prepare the foundations of API test automation with Python.

Day 1 (Total: 2 Hours)

Section 1: API Basics (30 min)

- What is an API? REST vs. SOAP
- HTTP methods (GET, POST, PUT, DELETE)
- HTTP Status Codes (200, 201, 400, 401, 403, 404, 500, etc.)

Section 2: Introduction to Postman (45 min)

- Installing Postman and interface overview
- Sending a basic GET request
- Query Params vs. Path Params
- Authorization: Using Bearer Token

Section 3: Hands-on Practice (45 min)

- Analyzing JSON responses
- Using environment variables
- Creating and saving collections
- Writing basic assertions in the "Tests" tab

Day 2 (Total: 2 Hours)

Section 4: Automation with Postman (45 min)

- Writing test scripts using the pm.* API
- Running collections with Collection Runner
- Data-driven testing with CSV/JSON files

Section 5: Python API Test Basics (45 min)

- Introduction to the requests library
- Writing simple GET and POST requests
- Working with JSON data
- Status code checks and basic assertions

Section 6: Mini Project (30 min)

- Choose a public API (e.g. JSONPlaceholder, reqres.in)
- Write the same test scenario in both Postman and Python:
Create user → Verify → Delete