Lot 8 : Test Automation

Integration Testing

Training @FPS on October 29th 2020

Agenda

1. Recap Day 1
2. BDD workshop
3. Integration Testing
4. REST API
5. REST-Assured Workshop

Day 1

- Recap

- Questions ?

Requirements

Install npm

https://www.npmjs.com/get-npm

Update already installed npm

npm install -g npm

Install json-server

npm install -g json-server

TDD Vs BDD – Key Differences

TDD	BDD
Stands for Test Driven Development.	Stands for Behavior Driven Development.
The process starts by writing a test case.	The process starts by writing a scenario as per the expected behavior.
TDD focuses on how the functionality is implemented.	BDD focuses on the behavior of an application for the end user.
Test cases are written in a programming language.	Scenarios are more readable when compared to TDD as they are written in simple English format.
Changes in how the application functions impact a lot on the test cases in TDD.	BDD scenarios are not much impacted by the functionality changes.
Collaboration is required only between the developers.	Collaboration is required between all the stakeholders.
Might be a better approach for projects which involve API and third-party tools.	Might be a better approach for projects which are driven by user actions. For eg: e-commerce website, application system, etc.
Some of the tools which support TDD are: JUnit, TestNG, NUnit, etc.	Some of the tools which support BDD are SpecFlow, Cucumber, MSpec, etc.
Tests in TDD can only be understood by people with programming knowledge,	Tests in BDD can be understood by any person including the ones without any programming knowledge.
TDD reduces the likelihood of having bugs in your tests.	Bugs in tests are difficult to track when compared to TDD.

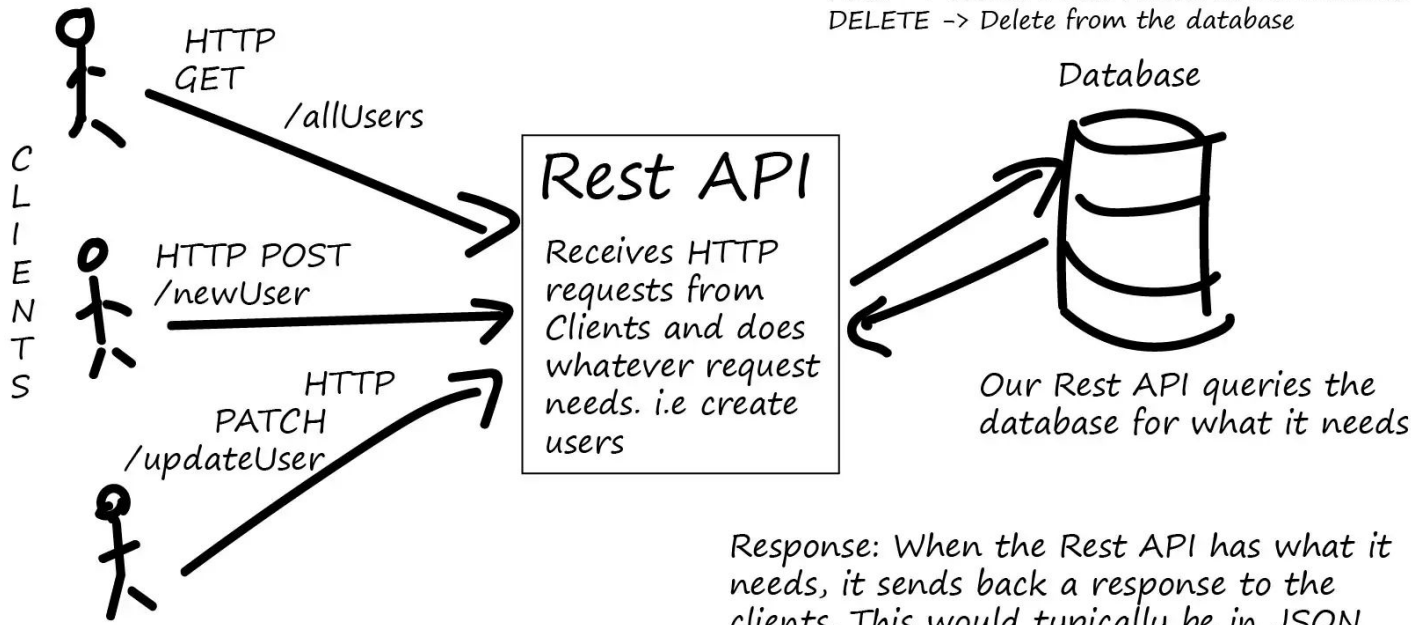
Gherkin reference

- Defined by a set of keywords
  - Feature
  - Scenario
  - Given, When, Then
  - Background
  - Scenario Outline
  - But

https://cucumber.io/docs/gherkin/reference/

Rest API Basics

Typical HTTP Verbs:
GET -> Read from Database
PUT -> Update/Replace row in Database
PATCH -> Update/Modify row in Database
POST -> Create a new record in the database
DELETE -> Delete from the database



Our Rest API queries the database for what it needs

Our Clients, send HTTP Requests and wait for responses

Response: When the Rest API has what it needs, it sends back a response to the clients. This would typically be in JSON or XML format.