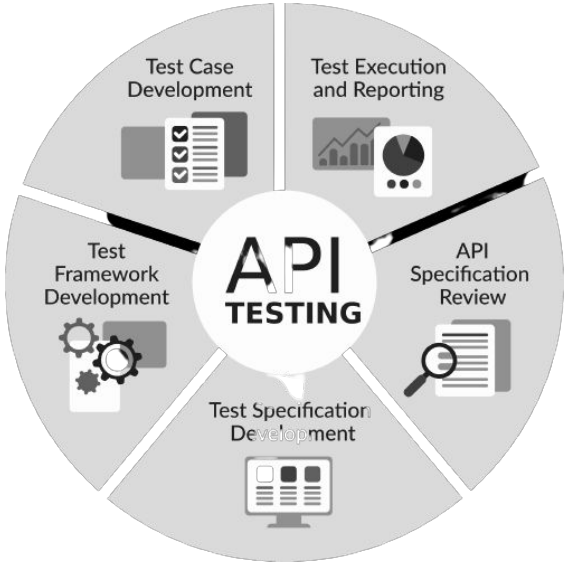
Rest Assured Basics



Pramod Dutta
Lead SDET.

Jenkins + Rest Assured

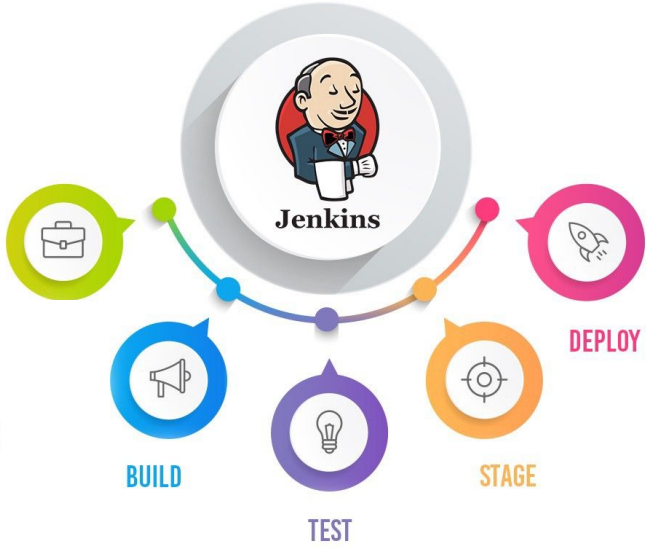
Agenda

- Jenkins Overview
- Running POSTMAN project in Jenkins.
- Rest Assured Hello World
- Rest Assured Overview

Install Jenkins

https://www.jenkins.io/dow

nload/



Sample commands:

- Install the latest LTS version: `brew install jenkins-lts`
- Install a specific LTS version: `brew install jenkins-lts@YOUR_VERSION`
- Start the Jenkins service: `brew services start jenkins-lts`
- Restart the Jenkins service: `brew services restart jenkins-lts`
- Update the Jenkins version: `brew upgrade jenkins-lts`

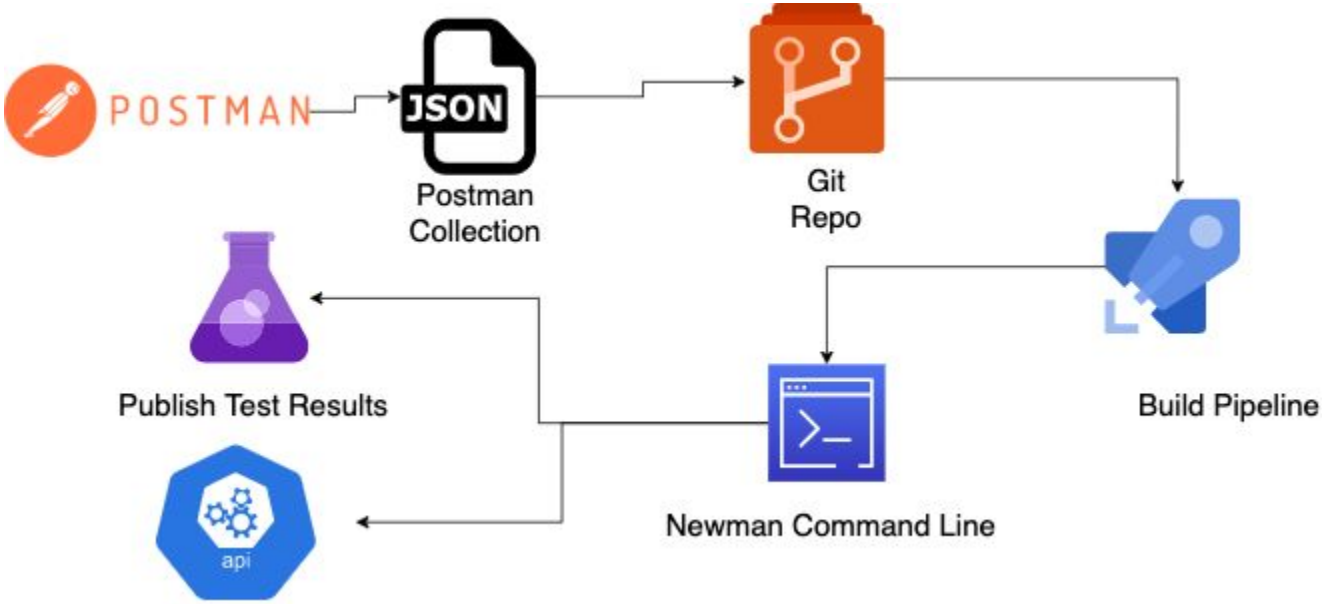
What is FreeStyle Job in Jenkins

Freestyle means improvised or unrestricted.

According to the official Jenkins wiki, a freestyle project is a typical build job or task. This could be as simple as running tests, building or packaging an application, sending a report, or even running some commands. Before any tests are run, data is collated.

Jenkins Freestyle Project is a **repeatable build job, script, or pipeline that contains steps and post-build actions**

Run Postman Collection on Jenkins



Why We need Parameters in Jenkins?

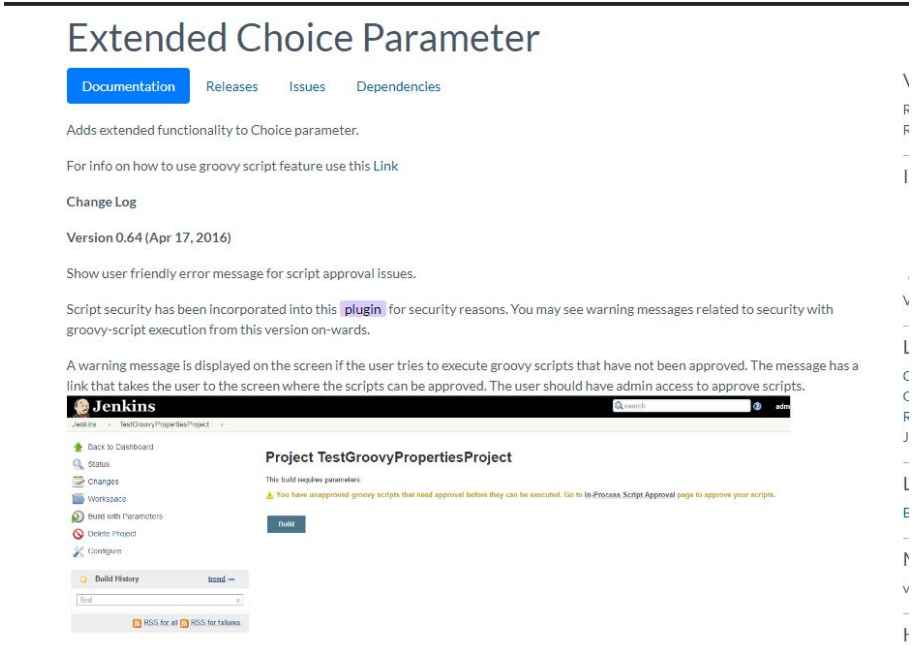
- Make our Project more generic
- You can change branch, env and other param while running
- You can use logic based on env which command to run
    - E.g if Windows run this
    - Else run this
-

Executing Bash script in Jenkins

- START "" notepad.exe D:\Project\notepad.bat

Extended Choice Parameter

Adds extended functionality to Choice parameter.



Rest Assured Basics

What is REST Assured?

- REST Assured is a Java Domain Specific Language (DSL) API used for writing automated tests for RESTful APIs.
- It is used to invoke REST web services for POST, GET, PUT, DELETE, OPTIONS, PATCH, and HEAD requests and validate the response.

Benefits of REST Assured.

- Contains tons of helper methods and abstraction layers.
- Remove the need for writing a lot of boilerplate code for connections, sending a request, and parsing a response.
- Easy to Understand Domain specific Language.
- Seamless integration with Java, TestNG.

Install Rest Assured in Maven Project

- https://mvnrepository.com/artifact/io.rest-assured/rest-assured
-

Given/When/Then

given()

- given part describes the state of the world before you begin the behavior you're specifying in this scenario.
- Building the DSL expression request.
- You can add Headers, params, message body, authentication.
- Its is pre request method(before making actual GET,POST, PUT. DELETE).

Given/When/Then

when()

- When section is that behavior that you're specifying.
- After when we mention the HTTP Method
- Body

Given/When/Then

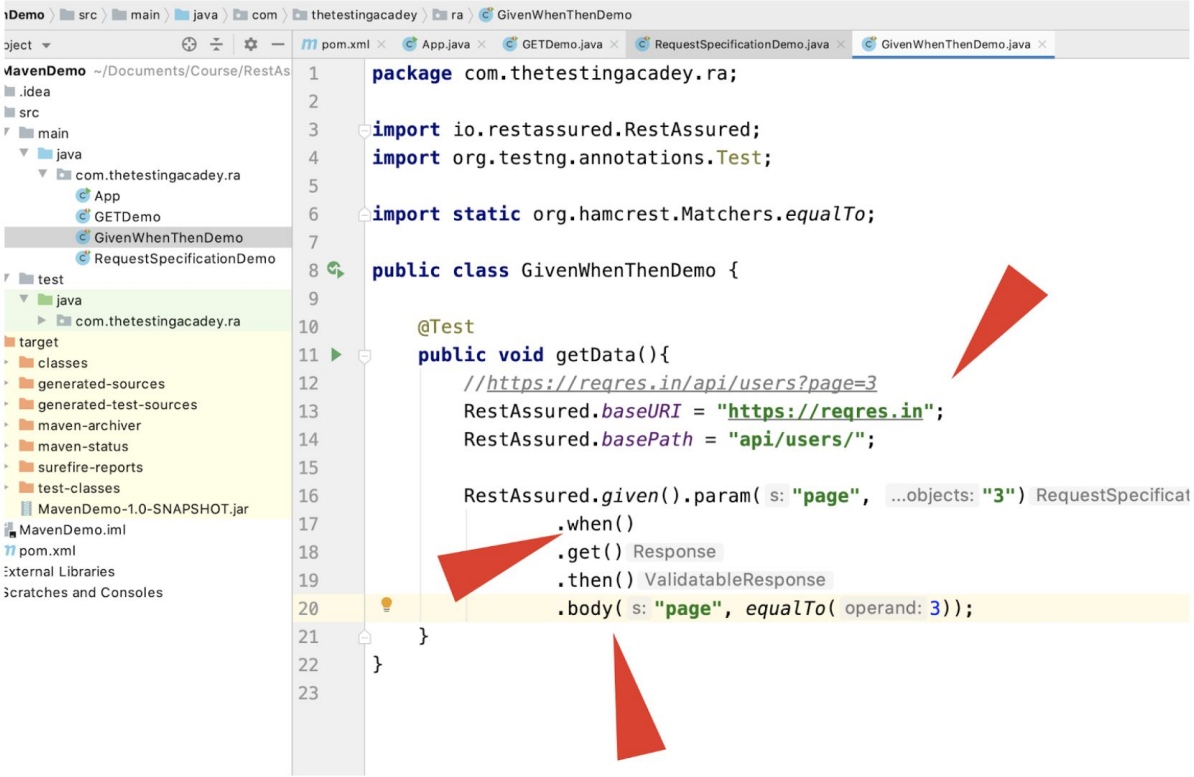
Then()

- Finally the then section describes the changes you expect due to the specified behavior.
- After Request is made this will give you body of the response
- You can assert the response now.
- Validation happens here.

Given/When/Then

https://martinfowler.com/bliki/GivenWhenThen.html

Given/When/Then



Download Pom.xml

https://codeshare.io/2B0gbK

Best Practices For Writing Automation Test Code

- Follow Programming Language Guidelines(method name-getPayload(), class name- APIEndpoints, package name-com.testingsumo.backend.tests, variable name-authToken
- Follow Oops Concepts Wherever Possible- Abstraction(base classes), Inheritance(multiple implementation of same things/multiple inheritance), Polymorphism(many forms with something different), Data Hiding(hide unnecessary/sensitive info), Encapsulation(Bind small entities into a single large entity)
- Reduce code duplicacy (think before writing new code, can i use/make change in existing code?)
- Increase code reusability
- Make your code generic wherever possible
- Leave no hardcoded data in source code
- Keep your static data outside the source code
- Keep your dynamic data dynamic in testcode (fetch it from db queries or scripts)
- Test your code properly, use IDE options such as call heirarcy or show usage to test your changes end 2 end

Best Practices For Writing Automated Testing Code Cont...

- Use Extensive logging- everything which is part of source code should be analyzed from logs without looking at the source code
- Generate and save failure proofs outside the src code- videos/data/screenshots/logs
- Focus on making your code scalable and faster without compromising the code quality
- Your code should be platform and system independent
- Use as many assertions as possible focus on automated testing rather than automation
- Leave no hardcoded data in source code
- Always think for the future, separate out tech dependencies so that migration to new tech is easy in case it is needed
- Keep your tests independent for better results in multithreading unless they are related (example publisher subscriber related tests)
- Use Proper Documentation
- Create code which is can be easily read and modified by others

Thanks, for attending Class

I hope you liked it.

Fin.