

## Solution

### Introduction:

As a solution of task, I have created the Test Automation framework using which we can capable to write automated test scripts for APIs.

### Pre-requisite:

- **Java** as Programming language.
- **TestNG** as Base Testing framework
- **Rest-assured** for API automation
- **Log4j** for Logging feature with spring class dependency injection
- **Maven** as Build tool

### Steps to execute:

1. Clone the code. [https://github.com/hardikdiyora/calculator\\_task](https://github.com/hardikdiyora/calculator_task)
2. Import the code into IDE for better visibility. (preferably, IntelliJ IDEA with maven auto-import enabled)
3. Run the provided binary on localhost: borrower-plan (So, it will be available at localhost:8080)
4. Run with "test\_suite.xml" file using following command, It will generate the log file named "test-run.log" file in "result" folder.

**`mvn clean test -Dsuredfire.suiteXmlFiles=test_suite.xml`**

### Folder Structure:

-- pom.xml.	(Maven configuration file)
-- test_suite.xml	(TestNG suite file for API tests)
-- src	
-- main	(Source code)
-- api_utils	(Utilities class for request-response)
-- logger	(Contains Log4J logger class)
-- resources	
-- log4j.properties	(Log4J properties file)
-- tests	(Tests directory)
-- api_tests.plan_api	
-- search	(API tests related to loan calculator endpoint)
-- APITestBase.java	(APITestBase class for setup)
-- results	(Execution output logs)
-- test_run.log	

**Number of Tests Automated:** 15

### Bugs:

- Acceptance criteria #7: The remaining outstanding principal of the last schedule entry equals always 0.00.