**Project Components**

* **Config.property**: All possible configurations can be made from this file like setting timeouts/generating data automatically/providing test data path, Browser Preference, testing environment etc.
* **Features** : All possible feature files are stored in this folder.
* **Step definition**: All steps needed to execute any feature reside here. All test validation reside here. This also consist baseStepDefinition hook to cover some pre/postcondition steps like browser setup and browser close.
* **Pages** : This consist of all the possible pages of application. All pages extend Base page which contains basic code common across all pages.
* **Utility**: All possible utility reside here like File util, project constant, Fake data generator etc
* **Project constant**: All the test data variables are stored here. Logic is to assert expected output vs actual output we use this.
* **Application log** : Application log can be accessed from this file.
* **Report**: This contains test execution report/ bug report and automation report.
* **Test runner** : Test can be executed via this file
* **References** : maven/chat gpt/stack overflow/google/YouTube
* **Library**: cucumber, Java faker, selenium, cucumber junit , log4j,TestNG
* **Build tool** : maven
* **Future scope** : Leveraging Ai tools like open ai to generate test data and some basic scripts.

Utility Files)

Fake Data Generator

FileReadUtil

Project Constants

Config Properties

Features

BasePage

Step Definitions

Pages

Config.properties file

Reports(Cucumber Report)

Application Logs(Log4J)

Hooks

**How to use this Framework** :

1. Go to Project Repository and clone this framework into one of IDE.
2. Provide some preferences like preferred browser/Test Environment/Test Data Preference like generating data Automatically or using some csv file/Timeouts etc in config.properties file.
3. Define the features under ‘Features’ folder. Write test steps in layman terms using BDD terminology like Given/When/Then/And. Write concrete steps of the same in the respective step definition file. Define respective functions as per the functionality in the respective page class. Also define the page locators of the respective page in page class using page Factory. Assert expected result in the step definition file.
4. Run the tests from Test Runner File. Define which all features needs to be run in this file using feature tags/name etc., Also define the respective step Definition File name using which feature steps should get run this should be defined under **glue**. Define desired report format here under **plugin.**
5. Provide the Test Data if any from ‘Test Data’ folder. Put your respective file in the folder defined. For example if csv file contains data put that file under ‘Test Data’ -> ‘csv’ folder.
6. If there are any common steps which gets repeated before/after every feature like ‘Browser startup/Opening application url/Logging out of browser/Closing browser window, define them under Step Definitions -> Base Page Step Definition file.
7. View Reports generated after running tests from Target -> Reports -> Cucumber.html file in the preferred browser.
8. To access application logs please check application.log file.

**Note**: Application login credentials needs to be provided from environment variables for security purpose. Set Environment variables as ‘EMAIL’ and ‘PASSWORD’.