RapidValue™
Driving Digital Excellence

AutoBots Cucumber BDD Automation Framework

User Manual

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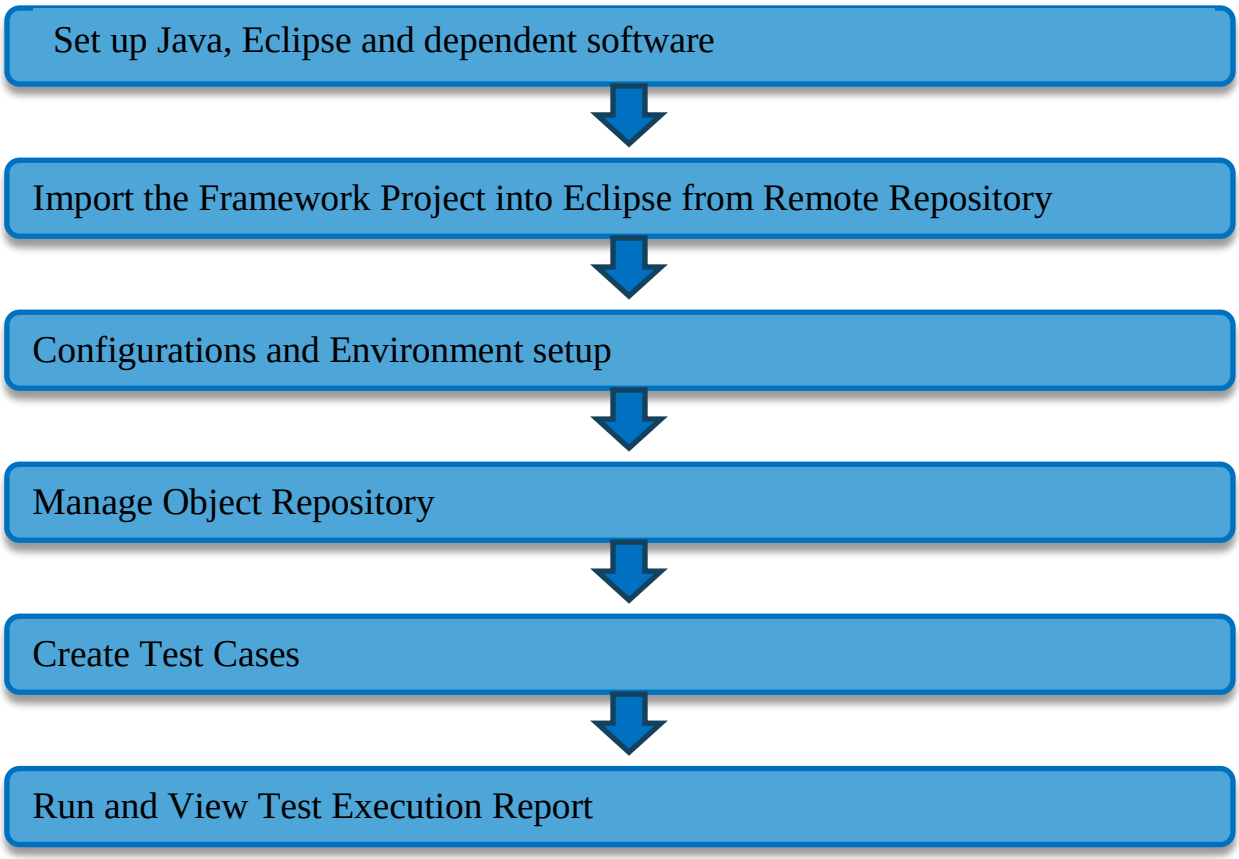
Overview

Autobots_Cucumber is a solution for the test automation of web application on different web browsers like Chrome and Firefox in real time. It provides rich features like Test Execution, Test Reporting, Capture Screenshots and Test details sharing via mail.

Autobots_Cucumber contains pre-built functions which facilitates the web automation. This manual provides the instruction to use Autobots_Cucumber.

The below mentioned steps to be followed to develop automation script using Autobots_Cucumber.



Getting Started with AutoBots Cucumber

The following sections describe hardware and software requirements as pre-requisite on Windows and Mac system. The below mentioned setups should be available in your machines to start the test execution.

Hardware Configurations

Mac System

- OS Version: OS X EI Capitan (10.11.6) and above
- RAM: 16GB and above
- Stable Network connection (LAN preferred)

Windows Systems

- OS Version: 7 and above
- RAM: 16GB and above
- Stable Network connection (LAN preferred)

Software Configurations

- Eclipse Version: Mars and above (preferred Java Developer Eclipse)
- Java: JDK 8 (http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads2133151.html)
- TestNG plugin should be added into your eclipse (https://dl.bintray.com/testng-team/testngeclipse-release/6.14.3/)

Eclipse Software for Windows and MAC

Windows

- Eclipse Oxygen: http://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/oxyg en/1a/eclipse-java-oxygen-1a-win32-x86_64.zip&mirror_id=1093

- Eclipse Photon: https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/pho ton/R/eclipse-java-photon-R-win32-x86_64.zip&mirror_id=1248
- Eclipse 2019-09: https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/201 9-09/M1/eclipse-java-2019-09-M1-win32-x86_64.zip&mirror_id=1142
- Eclipse 2020-03: https://www.eclipse.org/downloads/download.php?file=/oomph/epp/2020-03/R/eclipse-inst-mac64.dmg&mirror_id=518

MAC

- Eclipse Oxygen: http://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/oxyg en/1a/eclipse-java-oxygen-1a-macosx-cocoa-x86_64.dmg&mirror_id=1093
- Eclipse Photon: https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/pho ton/R/eclipse-java-photon-R-macosx-cocoa-x86_64.dmg&mirror_id=1142
- Eclipse 2019-09: https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/201 9-09/M1/eclipse-java-2019-09-M1-macosx-cocoa-x86_64.dmg&mirror_id=1142
- Eclipse 2020-03: https://www.eclipse.org/downloads/download.php?file=/oomph/epp/2020-03/R/eclipse-inst-mac64.dmg&mirror_id=518

JDK Software for Windows and MAC

- Go to http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html. From the site you can download and install JDK. Once you done the installation set JAVA_HOME in system environment variable.)

TestNG plugin Installation to eclipse

1. Open eclipse
2. Go to Help -> Eclipse Marketplace...
3. Do search for TestNG (Type the text TestNG in Find text box > Click Go button)
4. After searching: Click Install button at TestNG for Eclipse area

After successful installation: Go to Window -> Preferences. TestNG is enlisted at the left panel in pop-up.

NOTE: If you failed to find the TestNG in marketplace, then you can install the TestNG via Install New Software option with this link https://dl.bintray.com/testng-team/testng-eclipse-release/6.14.3/

How do cucumber work in Eclipse?

To configure Eclipse with Cucumber, we need to launch the Eclipse IDE, create a Workspace, create a Project and add External libraries to the project.

- Install Java.
- Download and Start Eclipse.
- Install Cucumber Eclipse Plugin.
- Download Cucumber JVM for Eclipse.
- Configure Eclipse with Cucumber.

How to use Autobots_Cucumber Framework

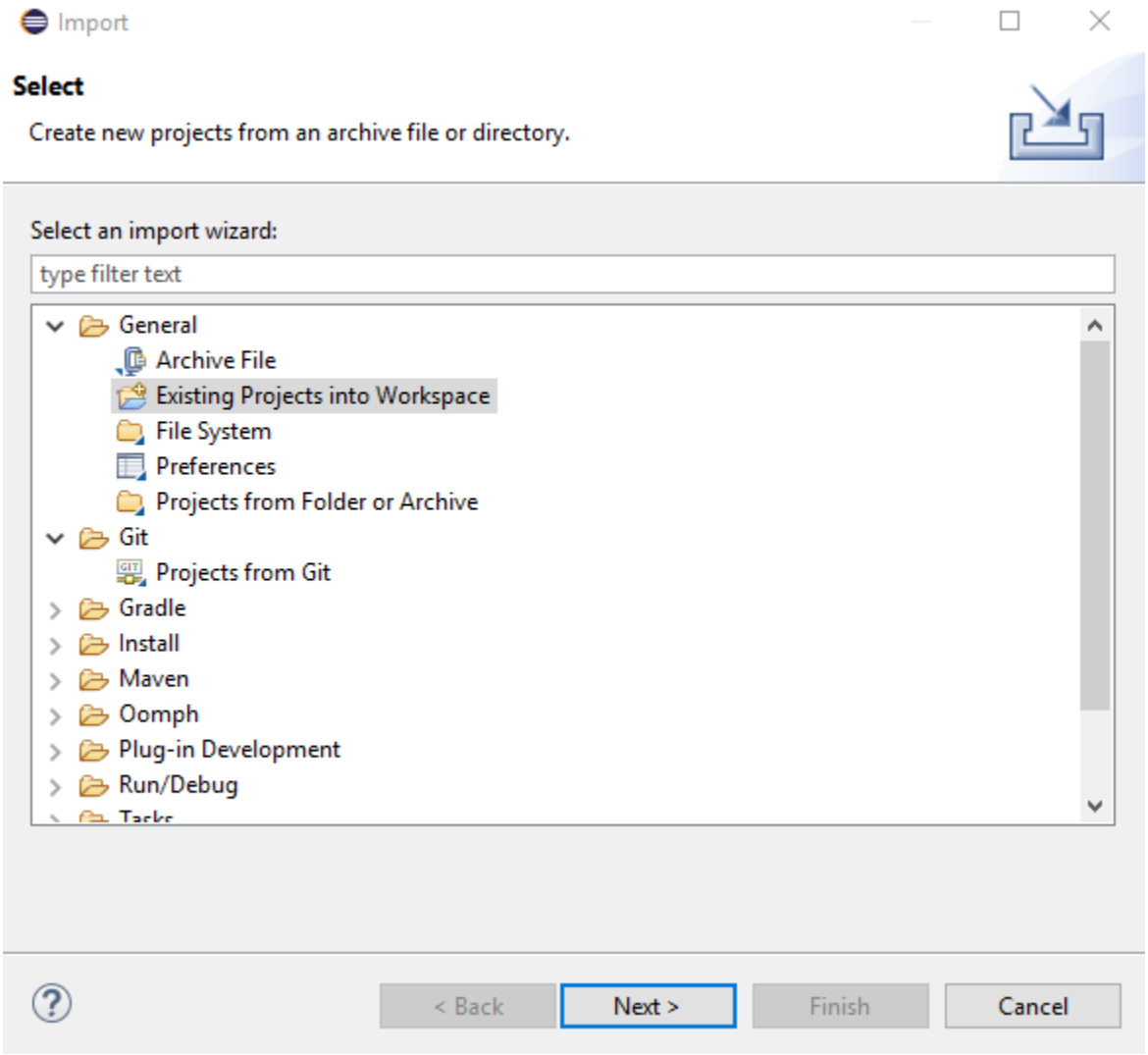
Import Project in Eclipse

The Autobots_Cucumber Framework is keeping in a remote repository and download the framework project into the system. Later you can import the downloaded project into Eclipse IDE.

To get the Framework in Eclipse

Open Eclipse and do the below steps to get the downloaded project into the eclipse.

1. Open File => Import.
2. Select "Existing Projects into Workspace" from the Selection Wizard.

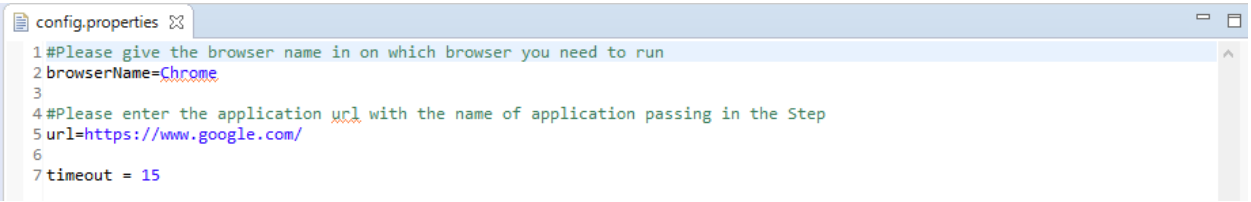


3. Select Next to get the Import Wizzard. Browse to find the location of the Project.
4. Make sure the Project you want is checked, then hit Finish

Then you will see the Cucumber framework is listed in your Eclipse project list. Now you can start to explore the framework.

Configuration setup

For running the test script on your laptops you need to update the below config.properties file.



Based on the browser name you mentioning here, the script start to execute on the respective browser. If you need to run the automation script on Chrome browser, then you need to update '***Chrome'*** there; and for executing in Firefox browser then you should update as '***Firefox'*** in browserName.

If required you can change the timeout also, this is the maximum time your script waiting for an element.

Manage Object Repository

The repository allows the user to store all the **objects** that will be used in the scripts in centralized locations rather than letting them be scattered all over the **test** scripts

Here a specific property file is used to track the web objects which are inspected from application pages.

Here we need to store the inspected elements details from each application pages.

For inspecting elements, you can right-click on the web object from the browser and then click "inspect".

Update the Object Repository property file after locating the elements details from each page of the test app.

objectRepository.properties

```
1 first_obj = //firstName
```

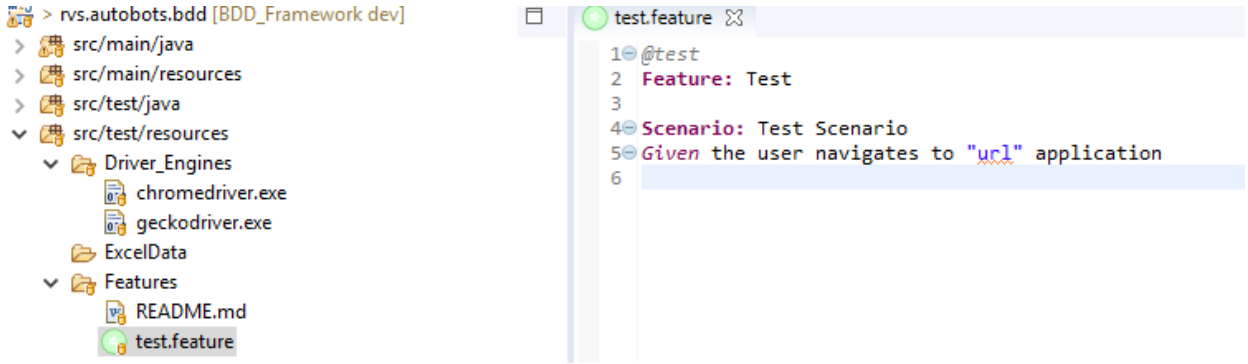
To Create Test Cases

Cucumber – Features

The file, in which Cucumber tests are written, is known as feature files. It is advisable that there should be a separate feature file, for each feature under test. The extension of the feature file needs to be ".feature".

One can create as many feature files as needed. To have an organized structure, each feature should have one feature file.

In this framework, feature files are stored inside the "Features" folder, which is located under ***src/test/resoruces*** directory.

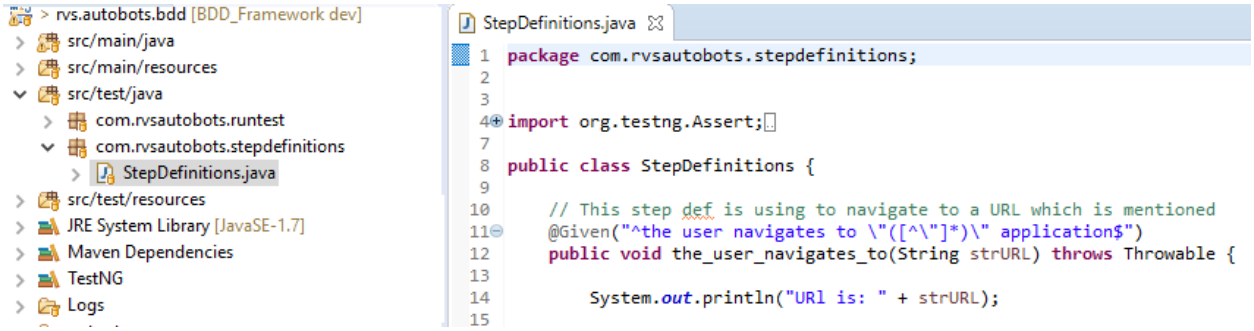


Cucumber – Step Definitions

Step definition file stores the mapping between each step of the scenario defined in the feature file with a code of function to be executed. So, now when Cucumber

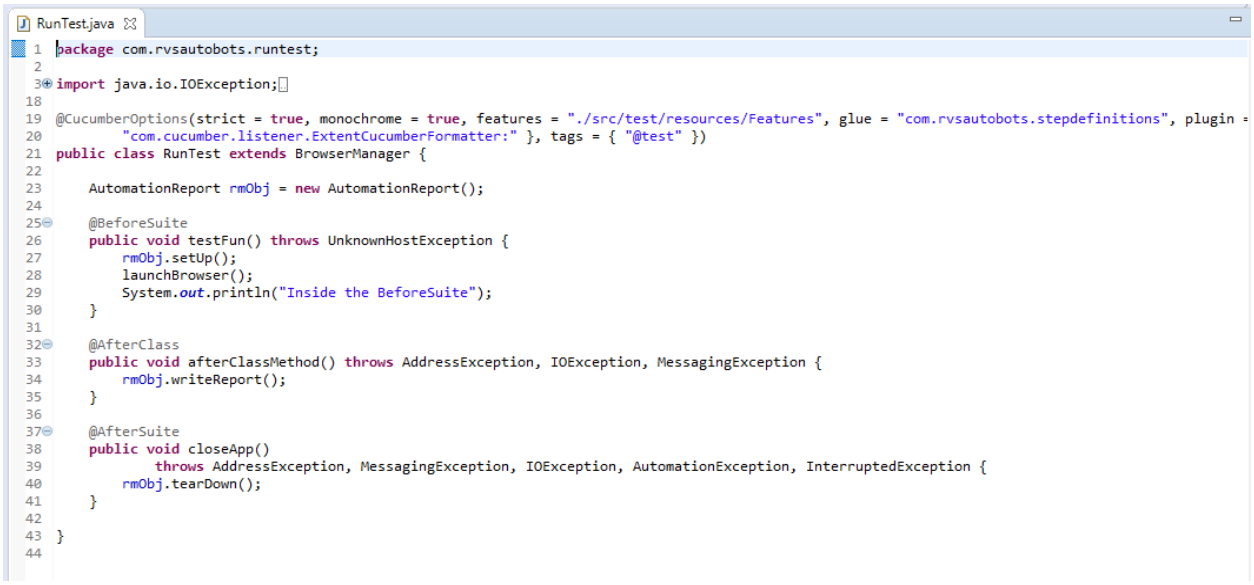
executes a step of the scenario mentioned in the feature file, it scans the step definition file and figures out which function is to be called.

Step Definitions files are stored inside the *stepdefinitions* folder, which is inside the ***src/test/java*** directory.



Cucumber – Runner Class

The package **'com.rvsautobots.runtest'** which contains our important test runner class **'TestRunner'**

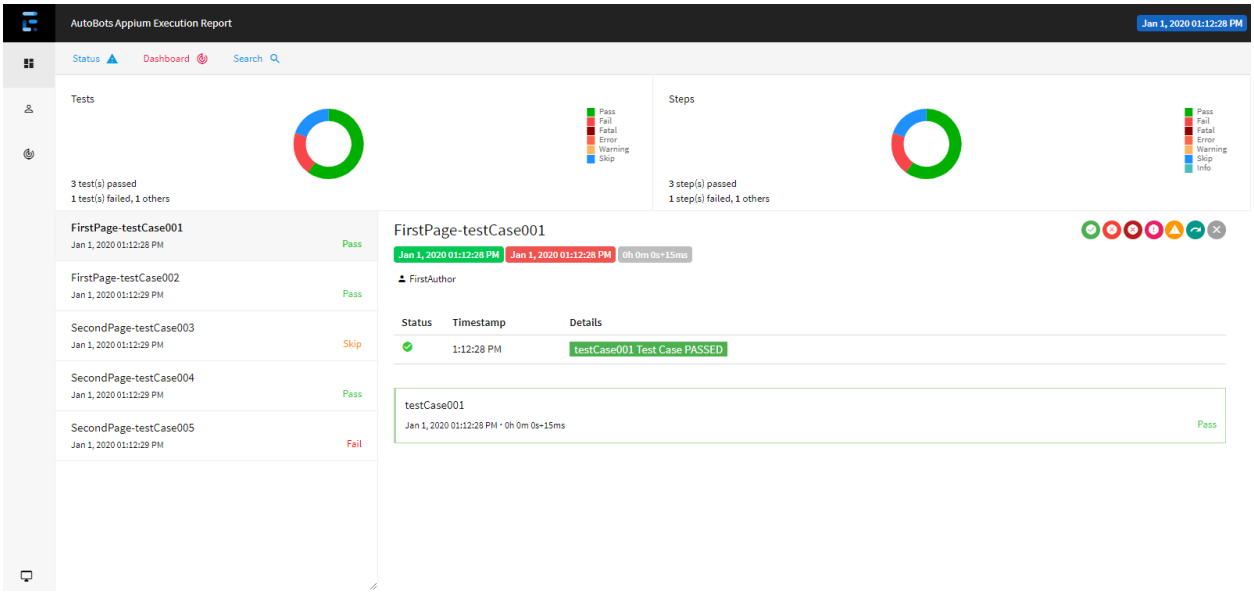


This TestRunner class will execute along with the test case classes and this will run the framework functionalities like launch app, execution report generation, and send mail with execution report.

To Check Execution Output details

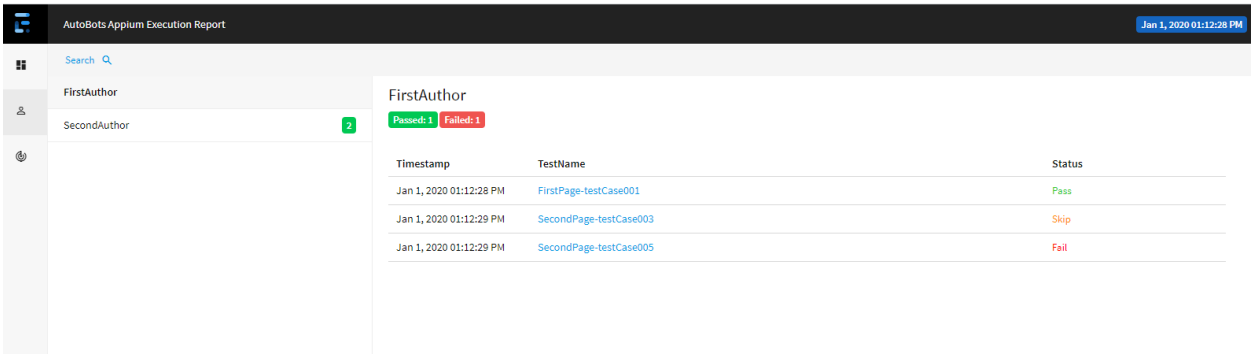
Execution Report

To view the execution report, go to the **'Reports'** folder which created automatically after the execution.
Take the latest execution report which is on top with the execution time.
Open the html report in your browser.



From this report you will get the entire test cases execution status.
In case of failed test cases the respective screenshot is attached with this report.

It's easy to track the developer scripting quality based on the test case created user details. The user section on html report is filter the test case executed based on the created user.



And in the environment details you will get from the next dashboard tab. And the script executed time is showing at the top right.
If you are not interested with the light theme, you can change it to dark using the bottom left theme button.

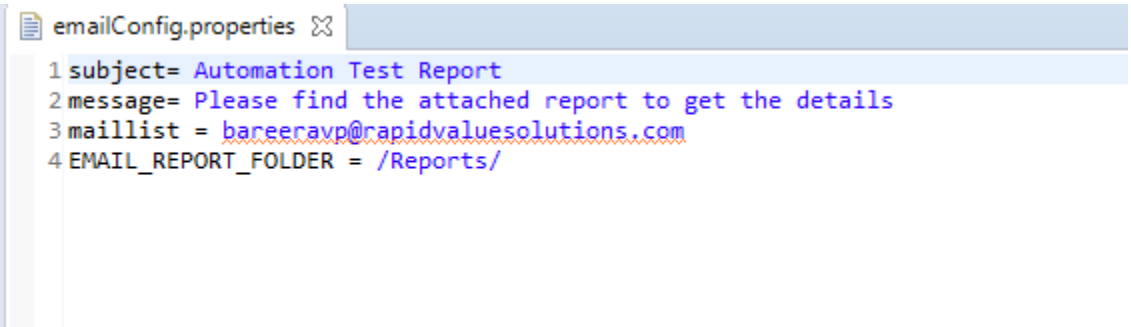
To View failed cases Screenshots

It's there in the screenshot folder which automatically created when a test case script got failed, you need to open the same from project structure in order to view the failed case screenshot. Using the screenshots you can easily trouble shoot the failed cases.

Automated Mail Setup

The framework is capable to share the execution reports to the stakeholders with the attachments of current execution report.

In order to change the mail content or recipients details, you need to update the same in **'emailConfig.properties'**



You can update the required text that you need to show in the report mail in the fields of Subject and message.

The maillist handles the recipient's details, who all need to get your execution details. You can add multiple recipients in case if needed.

From AutomationReport folder, it automatically select the latest file and will attach that with your report mail.

About RapidValue

RapidValue is a leading provider of end-to-end mobility, omni-channel, IoT and cloud solutions to enterprises worldwide. Armed with a large team of experts in consulting, UX design, application engineering and testing, along with experience delivering global projects, we offer a range of services across various industry verticals. RapidValue delivers its services to the world's top brands and Fortune 1000 companies, and has offices in the United States and India.

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