

Introduction:

This document tells how the program will be executed, tested and extended.

Acknowledgement:

Apache commons-csv has been used for reading the csv file and parsing it. Though the working on this test was started with custom parser then in one of the previous versions I migrated from custom parser to 3rd party parser(common-csv) the reason for migration are 3rd party parser is maintained by community, optimized for speed and stability and has been tested more rigorously.

The project has **not** been deployed on a GIT as was requested not to make the code public. Private repositories are only available for premium members.

Requirements to Run and Test this Project:

- 1-JDK8
 - 2-JDK path is added in classpath
 - 3-Maven
 - 4-Maven path is added in classpath
-

Run Using Maven

- 1- Please make sure maven is installed and maven_home is set.
- 2-Please check maven is added in the classpath.
- 3-Open terminal type mvn you should see the version number like below.

```
D:\WS\WS\Java\MyEclipsesRunnable\Syed_Kazmi>mvn -v
Apache Maven 3.5.2 (138edd61fd100ec658bfa2d307c43b76940a5d7d; 2017-10-18T18:58:13+11:00)
Maven home: C:\mvn\bin\..
Java version: 1.8.0_40, vendor: Oracle Corporation
Java home: C:\java\1.8\jre
Default locale: en_US, platform encoding: Cp1252
OS name: "windows 8.1", version: "6.3", arch: "amd64", family: "windows"
```

- 4-Type "cd" to the project folder root where there is a pom.xml is residing

5-Run the follow command

```
mvn exec:java -Dexec.mainClass=com.papercut.test.Run  
-Dexec.args="path_to_your_folder/sample.csv A4"
```

*path_to_your_folder will be replaced by the location where your test file is residing.

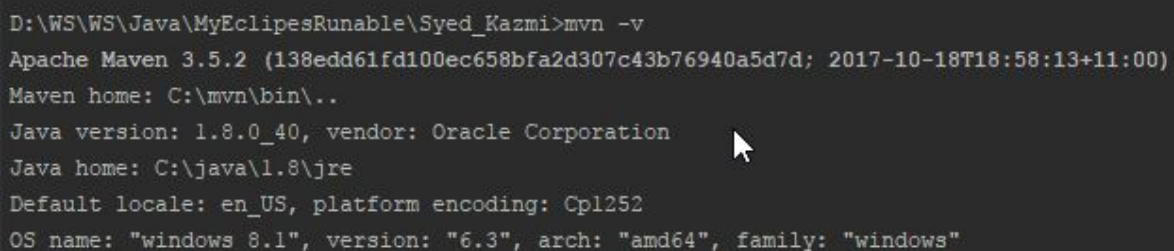
*the second argument(A4) is optional if not supplied A4 will be used as a default..

Run Tests Using Maven

1-Please make sure maven is installed and maven_home is set.

2-Please check maven is added in the classpath.

3-Open terminal type mvn you should see the version number like below.

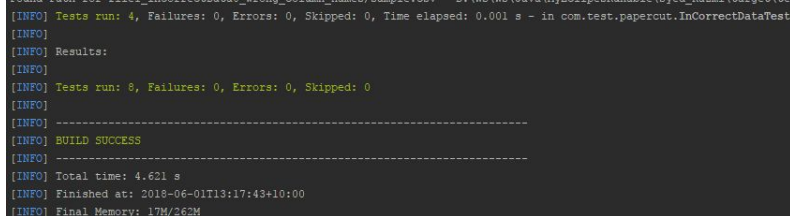


```
D:\WS\WS\Java\MyEclipsesRunnable\Syed_Kazmi>mvn -v  
Apache Maven 3.5.2 (138edd61fd100ec658bfa2d307c43b76940a5d7d; 2017-10-18T18:58:13+11:00)  
Maven home: C:\mvn\bin\..  
Java version: 1.8.0_40, vendor: Oracle Corporation  
Java home: C:\java\1.8\jre  
Default locale: en_US, platform encoding: Cpl252  
OS name: "windows 8.1", version: "6.3", arch: "amd64", family: "windows"
```

4-Type "cd" to the project folder root where there is a pom.xml is residing

5-Run the follow command "mvn test -X "

6-The output should be similar to below

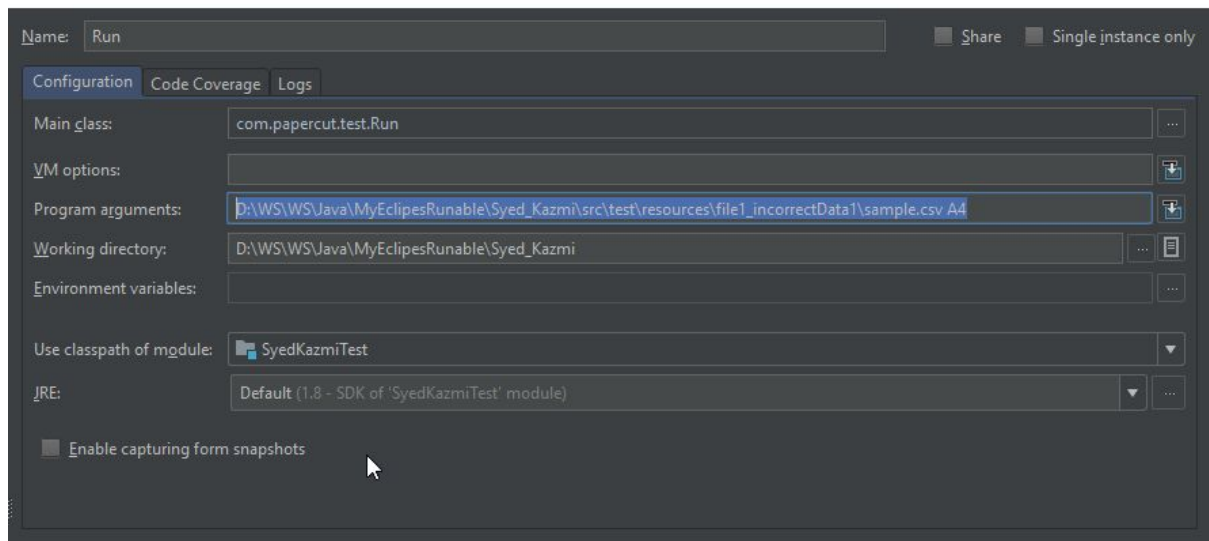


```
[INFO] Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.001 s - in com.test.papercut.InCorrectDataTest  
[INFO] Results:  
[INFO] Tests run: 8, Failures: 0, Errors: 0, Skipped: 0  
[INFO] BUILD SUCCESS  
[INFO] Total time: 4.621 s  
[INFO] Finished at: 2018-06-01T13:17:43+10:00  
[INFO] Final Memory: 17M/262M
```

Run Using IntelliJ IDE

The program has been built with Maven so it can be imported into any IDE, preferably IntelliJ.

Once the program is opened in an IDE the com.papercut.test.Run can be run directly with passing the command line args from IDE like below image.



Run Tests Using IntelliJ

Tests can be run in a similar way by running “JUnitTestSuite” or “TestRunner” file.

Extendibility

If in the future new paper types are required they can be added by minimalistically modifying the existing code.

To add the new “paper type” add a new class called “A5PriceVisitor”. The newly added class has to be added and to extended from “Page” abstract class and implement abstract methods.

Add the pricing for the new added class.

The newly created class also has to be registered in “PaperTypes” enum and a case has to be added like demonstrated for A5 page. Please refer to “PaperTypes.java” on line number 52 or see image below.

```
        break;
    case "A5" :
        visitor= new A5PriceVisitor();
        break;
    }
    paperTypesList.put(name,visitor);
```

To run the program with new PaperType use the below command and pass the page type as second argument.

```
mvn exec:java -Dexec.mainClass=com.papercut.test.Run  
-Dexec.args="path_to_your_folder/sample.csv A5"
```

*A5 being new page type

If the company later on decides to add a papetype in the jobs csv file they can do so by adding the new column and call the column name "Paper Type" like shown in "file1_correctData_with_additional_column/sample.csv" file .

*When the new column is added, the relevant Paper Type also has to be added i.e if adding A5 in csv file the A5PriceVisitor also has to be added like described in the beginning of this section.
