**A03 - JUnit Back-end Testing**

**Team-2**

**Need to add hyperlinks for these sections**

1. **Test Links Section:**

* Java source code <JavaSource.zip>
* Test Case Tables (xls) format <TestCasesExcelxls.zip>
* JaCoCo results <jacocoTestResults.zip>
* PIT Results <pitTestResults.zip>
* Excel test files <TestCasesExcelFiles.zip>
* Junit test files <JUnitTestCases.zip>

1. **Junit Report Section:**

# Section 1 –User:

## Section 1.1 – TestCaseTable:

[TestCasesExcelxls\UsersTest.xlsx](TestCasesExcelxls/UsersTest.xlsx) (hyperlink of the test case file)

Section 1.2 – JaCoCo Coverage Summary:

We have achieved 100% JaCoCo coverage.

Section 1.3 – Pit Test Results:

We have passed Pit Test with 90% mutators killed.

The coverage that we could not be covered for PIT mutation was because of the following Mutators surviving-

1. **Removed conditional – replaced equality check with true – SURVIVED**
2. **Substituted 0 with 1**

# Section 2 –UsersErrorMsgs:

## Section 2.1 – TestCaseTable:

[TestCasesExcelxls\UsersTest.xlsx](TestCasesExcelxls/UsersTest.xlsx) (hyperlink of the test case file)

Section 2.2 – JaCoCo Coverage Summary:

We have achieved 100% JaCoCo coverage.

Section 2.3 – Pit Test Results:

We have passed Pit Test with 96% mutators killed.

The coverage couldn’t reach because of the following **allowable Exceptions –**

1. **Equal to less or Equal**
2. **Not equal to greater than**

Since these are allowable exceptions PIT coverage cannot reach 100%.

# Section 3 – reserve:

## Section 3.1 – TestCaseTable:

[TestCasesExcelxls\ReservationTest.xlsx](file:///C:\Users\manir\Documents\SEM%206(fall%2020)\CSE%206321(AT)\Project\A03%20-%20Full%20backend%20testing%20(JUnit,%20Jacoco,%20PIT)\Files\TestCasesExcelxls\ReservationTest.xlsx)

Section 3.2 – JaCoCo Coverage Summary:

We have achieved 100% JaCoCo coverage.

Section 3.3 – Pit Test Results(reserve):

We have passed Pit Test with 87% mutators killed.

The remaining mutators are mentioned in the Allowable PIT exceptions document given.

# Section 4 – reserveErrorMsg:

## Section 4.1 – TestCaseTable:

[TestCasesExcelxls\ReservationTest.xlsx](file:///C:\Users\manir\Documents\SEM%206(fall%2020)\CSE%206321(AT)\Project\A03%20-%20Full%20backend%20testing%20(JUnit,%20Jacoco,%20PIT)\Files\TestCasesExcelxls\ReservationTest.xlsx)

Section 4.2 – JaCoCo Coverage Summary:

We have achieved 100% JaCoCo coverage.

Section 4.3 – Pit Test Results(reserveErrorMsgs):

We have passed Pit Test with 75% mutators killed.

The remaining mutators are mentioned in the Allowable PIT exceptions document given.

# Section 5 – Events:

## Section 5.1 – TestCaseTable:

[TestCasesExcelxls\ReservationTest.xlsx](file:///C:\Users\manir\Documents\SEM%206(fall%2020)\CSE%206321(AT)\Project\A03%20-%20Full%20backend%20testing%20(JUnit,%20Jacoco,%20PIT)\Files\TestCasesExcelxls\ReservationTest.xlsx)

Section 5.2 – JaCoCo Coverage Summary:

We have achieved 100% JaCoCo coverage.

Section 5.3 – Pit Test Results(reserve):

We have passed Pit Test with 99% mutators killed.

The remaining mutators are mentioned in the Allowable PIT exceptions document given.

# Section 6 – EventsErrorMsg:

## Section 6.1 – TestCaseTable:

[TestCasesExcelxls\ReservationTest.xlsx](file:///C:\Users\manir\Documents\SEM%206(fall%2020)\CSE%206321(AT)\Project\A03%20-%20Full%20backend%20testing%20(JUnit,%20Jacoco,%20PIT)\Files\TestCasesExcelxls\ReservationTest.xlsx)

Section 6.2 – JaCoCo Coverage Summary:

We have achieved 100% JaCoCo coverage.

Section 6.3 – Pit Test Results(reserveErrorMsgs):

We have passed Pit Test with 100% mutators killed.