# 1. Testing Strategy

This document will list various test cases that will be created and executed to verify the functionality and usability of the Smoothie Cart Manager app developed by Team 80. The testing will be done manually and a matrix of test cases will be created during the development of systems and issues detected by the tests will be logged on github.com for developers to resolve.

# 2. Test Cases

The app consists of 3 main buttons in the main menu and test cases below are organized by these three sections;

## 2.1. Customer Button

The "Customer" button consists of subsequent buttons to manage customer information in which you can; "Add", "Edit" and "Print Transactions" for a customer.

| Test Number (T) | Test | Expected Result | Actual Result | Tester | Pass/ Fail | Comments |
|---|---|---|---|---|---|---|
| 1.1.1 | Click on Customer button | Manage Customer menu is displayed | Manage Customer menu is displayed | Gandharv | Pass | |
| 1.1.2 | Check back button functionality for this whole section. | Takes user back to previous screens | Takes user back to previous screens | Gandharv | Pass | |
| 1.2.1 | "Manage Customer" click ADD | Add Customer Info is displayed | Add Customer Info is displayed | Gandharv | Pass | |

| 1.2.2 | "Add Customer Info" allows user to enter name, address and email. | The text fields can be populated | The text fields can be populated | Gandharv | Pass | |
|---|---|---|---|---|---|---|
| 1.2.3 | Customer ID is automatically generated. | Generates 32-bit unique hexadecimal ID | Generates 32-bit unique hexadecima l ID | Gandharv | Pass | |
| 1.2.4 | Add customer to database. | Click on SUBMIT button adds customer to DB. | Click on SUBMIT button adds customer to DB. | Gandharv | Pass | |
| 1.2.5 | Indicate if customer was successfully added | Once the customer is successfully added a popup message informs the user. | Once the customer is successfully added a popup message informs the user. | Gandharv | Pass | |
| 1.2.6 | Check if name field is empty and report error. | If the name field is empty the user gets a notification to populate name field. | If the name field is empty the user gets a notification to populate name field. | Gandharv | Pass | |
| 1.2.7 | Check if the email format is correct else report error. | Under the Email field check if a valid email format is typed and if not notify | Under the Email field check if a valid email format is typed and if not notify | Gandharv | Pass | |

| | | user to fix it. | user to fix it. | | | |
|---|---|---|---|---|---|---|
| 1.3.1 | Manage Customer click EDIT | Edit Customer Info is displayed | Edit Customer Info is displayed | Gandharv | Pass | |
| 1.3.2 | SCAN QR button functionality | Automatically fills in the customer information; name, address and email. | Automatically fills in the customer information; name, address and email. | Gandharv | | |
| 1.3.3 | SCAN QR customer ID validation | SCAN QR button loads customer ID in correct field which is non-editable | SCAN QR button loads customer ID in correct field which is non-editable | Gandharv | Pass | |
| 1.3.4 | Edit Customer Info allows the user information to be updated. | Can edit name, address, email and when SUBMIT is clicked, the info is updated. | Can edit name, address, email and when SUBMIT is clicked, the info is updated. | Gandharv | Pass | |
| 1.3.5 | Edit customer notification | After the SUBMIT button is hit the user is notified that the record was updated or error is reported. | After the SUBMIT button is hit the user is notified that the record was updated or error is reported. | Gandharv | Pass | |

| 1.3.6 | Print Transactions, SCAN QR functionality | SCAN QR button loads Name and Customer ID in non-editable fields. | SCAN QR button loads Name and Customer ID in non-editable fields. | Gandharv | Pass | |
|---|---|---|---|---|---|---|
| 1.3.7 | Print Transactions, PRINT functionality | PRINT button prints customer purchase history in a table consisting of Transaction ID, Date, Price and Discount Type | PRINT button prints customer purchase history in a table consisting of Date, Price and Discount Type. The table is scrollable if long. | Gandharv | Pass | |

## 2.2. Rewards Button

The "Rewards" button consists of subsequent buttons to set rewards program and also to get the rewards information for a particular user.

| Test Number (T) | Test | Expected Result | Actual Result | Tester | Pass/ Fail | Comments |
|---|---|---|---|---|---|---|
| 2.1.1 | Click on Rewards button | Rewards Manager menu is displayed | Rewards Manager menu is displayed | Gandharv | Pass | |
| 2.1.2 | Check back button functionality for this whole section. | Takes user back to previous screens | Takes user back to previous screens | Gandharv | Pass | |

| 2.2.1 | Click on SET to go to Set Rewards menu | Takes user to Set Rewards menu | Takes user to Set Rewards menu | Gandharv | Pass | |
|---|---|---|---|---|---|---|
| 2.2.2 | Load default amounts specified in requirements for Set Rewards menu | Credit Threshold = 50, Credit Amount = 5, Gold Status Threshold = 500, Discount % = 5 | Credit Threshold = 50, Credit Amount = 5, Gold Status Threshold = 500, Discount % = 5 | Gandharv | Pass | |
| 2.2.3 | Fields in Set Rewards editable | Modifiable rewards specifications | Modifiable rewards specifications | Gandharv | Pass | |
| 2.2.4 | Update Set Rewards using SUBMIT with notification | Successfully updated rewards and pop up notification | Successfully updated rewards and pop up notification | Gandharv | Pass | |
| 2.3.1 | Click on GET to go to Get Rewards menu | Takes user to Get Rewards menu | Takes user to Get Rewards menu | Gandharv | Pass | |
| 2.3.2 | SCAN QR functionality | SCAN QR button should scan QR code and return the associated field values for the customer. The field values are Gold Status, Credits and Expiration | SCAN QR button should scan QR code and return the associated field values for the customer. The field values are Gold Status, Credits and | Gandharv | Pass | |

| | | Date | Expiration Date | | | |
|---|---|---|---|---|---|---|

## 2.3. Transaction Button

The "Transaction" button allows the user to process a transaction for the customer based on his/her purchase by applying the relevant discounts.

| Test Number (T) | Test | Expected Result | Actual Result | Tester | Pass/ Fail | Comments |
|---|---|---|---|---|---|---|
| 3.1.1 | Click on Transaction button | Transactions Summary page is displayed | Transactions Summary page is displayed | Gandharv | Pass | |
| 3.1.2 | Check back button functionality for this whole section. | Takes user back to previous screens | Takes user back to previous screens | Gandharv | Pass | |
| 3.1.3 | SCAN QR functionality | SCAN QR button should scan QR code and return the associated field values for the customer. The field values are Customer Name and Customer ID. | SCAN QR button should scan QR code and return the associated field values for the customer. The field values are Customer Name and Customer ID. | Gandharv | Pass | |
| 3.1.4 | Price field takes number input | Enter non-number | Enter non-number returns | Gandharv | Pass | |

| | | else reports error | returns error. | error. | | | |
|---|---|---|---|---|---|---|---|
| 3.1.5 | SUBMIT button functionality - 1 | After entering price, the user hits submit to calculate subsequent fields. | After entering price, the user hits submit to calculate subsequent fields. | Gandharv | Pass | |
| 3.1.6 | SUBMIT button functionality - 2 | Date field automatically populated after hitting SUBMIT button | Date field automaticall y populated after hitting SUBMIT button | Gandharv | Pass | |
| 3.1.7 | SUBMIT button functionality – 3 | Discount amount correctly calculated after SUBMIT button | Discount amount correctly calculated after SUBMIT button | Gandharv | Pass | |
| 3.1.8 | SUBMIT button functionality – 4 | Discount Type code correctly displayed on clicking SUBMIT | Discount Type code correctly displayed on clicking SUBMIT | Gandharv | Pass | |
| 3.1.9 | SUBMIT button functionality – 5 | Final price after discounts automatically calculated after clicking SUBMIT | Final price after discounts automaticall y calculated after clicking SUBMIT | Gandharv | Pass | |
| 3.1.10 | Correct gold status calculated | Default discount of 5% was | Default discount of 5% was | Gandharv | Pass | |

| | | applied correctly | applied correctly | | | |
|---|---|---|---|---|---|---|
| 3.1.11 | Correct credit calculated and applied on SUBMIT - 1 | Default credit of $5 was applied to purchases over $50 | Default credit of $5 was applied to purchases over $50 | Gandharv | Pass | |
| 3.1.12 | Correct credit calculated and applied on SUBMIT - 2 | Credit carried over and added to current purchase correctly. | Credit carried over and added to current purchase correctly. | Gandharv | Pass | |
| 3.1.13 | Correct credit calculated and applied on SUBMIT - 3 | If credit subtracted from final price is less than $50 new credit for spending $50 is not applied | If credit subtracted from final price is less than $50 new credit for spending $50 is not applied | Gandharv | Pass | |
| 3.1.14 | Correct combo of gold status and credit calculated and applied on SUBMIT | If the customer has gold status and previous credit, it is applied according to requirement correctly | If the customer has gold status and previous credit, it is applied according to requirement correctly | Gandharv | Pass | |
| 3.1.15 | APPLY TRANSACTION button | Scans credit card and processes transaction | Scans credit card and processes transaction | Gandharv | Pass | |
| 3.1.16 | APPLY TRANSACTI | Notifies when | Notifies when | Gandharv | Pass | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | ON button notification – 1 | transaction is successfully complete with transaction ID | transaction is successfully complete with transaction ID | | | |
| 3.1.17 | APPLY TRANSACTION button notification – 1 | Notifies when transaction is not successful with error | Notifies when transaction is not successful with error | Gandharv | Pass | |

## 2.4. Email Notifications

Email notifications are sent out on 2 occasions and these scenarios were part of the tests.

| Test Number (T) | Test | Expected Result | Actual Result | Tester | Pass / Fail | Comments |
|---|---|---|---|---|---|---|
| 4.1.1 | Email is sent when a customer gets credit. | Email with default credit subject and credit message is sent when a credit is applied to transaction | Email with default subject and credit message is sent when a credit is applied to transaction | Gandharv | Pass | |
| 4.1.2 | Emails is sent when he/she achieves "Gold" Status. | Email with default "Gold Status" subject and message is sent when a customer achieves | Email with default "Gold Status" subject and message is sent when a customer | Gandharv | Pass | |

| | | "Gold" status. | achieves "Gold" status. | | | |
|---|---|---|---|---|---|---|

# 3. Issue Tracking and Reporting

While testing issues identified were logged in Github Issues page and the team members resolved them as they were created. Presented below is a screenshot of some issues created and resolved during the testing process. All the issues of that were detected and resolved for this project can be found on the project issues page.