Chapter No. 05

Testing

Essential part of the application development is testing before release it in the public. These are the following subject of testing, we used after the development of an android based application called Smart Access

Functional Testing

In this subject, we test the application according to does its meet the exact need, what it’s supposed to do? The application main objective and all functional requirements are fulfilled after this testing.

Performance Testing

In this subject, we test the efficiency and quickness of the application. After the testing process, we conclude the overall efficiency and timely response of the application is very good.

Compatibility Testing

In this subject, we test the compatibility of the application on android based smartphones currently available in the market OR for website any type of laptop Available in market. The result is positive and also work well on the application programming interface level.

Testing Methodology

For android based application called Smart Access , we used the instrumented testing methodology as post-development. According to this methodology, the application is run on an android device either physical or emulated as test application. We launched an application and interact with it for user interface testing and also testing the logical operations are working well. Furthermore, we also used unit, integration and end-to-end testing methodologies under development or sometime at post-development phases (when more features are integrated).

Test Cases

In software engineering, a test case is a specification of the inputs, execution conditions, testing procedure, and expected results that define a single test to be executed to achieve a particular [software testing](https://en.wikipedia.org/wiki/Software_testing) objective, such as to exercise a particular program path or to verify compliance with a specific requirement. [1] These are the following test cases given below to test the functional working of the application.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Operator Web Login Test Case | | | | | |
| Name | Login | | | | |
| ID | TC-01 | | | | |
| Use Case Reference | UC-01 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device Have internet browser | | | | |
| Assumption | The user is on Login panel. | | | | |
| Pre-Requisite | The user Can Login Through Google | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Press signup button | N/A | Input required | Input required |
| Invalid syntax | Must Have Access Of Distribution Account | Login with Google |
| Valid input | Home screen | Home screen |
| Google account already login in device | Home Screen | Home Screen |
| Status | Approved | | | | |

Table 01: Login Distribution Center Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Stock Management Test Case | | | | | |
| Name | Stock Managment Service | | | | |
| ID | TC-02 | | | | |
| Use Case Reference | UC-02 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Stock Management Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Stock Button | Click Stock Button | Stock Management open | We Can Manage Stocks Here |
| Status | Sucess | | | | |

Table 04: Stock Managment Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Daily Sale Management Test Case | | | | | |
| Name | Daily Management Service | | | | |
| ID | TC-03 | | | | |
| Use Case Reference | UC-03 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Daily Sale Management Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Daily Sale Button | Click Daily Sale Button | Daily Sale open | We Can Manage Daily Sale (Start , close & End Sale) Here |
| Status | Sucess | | | | |

Table 03: Daily Sale Management Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sale Man / Employee Recovery Test Case | | | | | |
| Name | Sales Man / Employee Recovery Service | | | | |
| ID | TC-04 | | | | |
| Use Case Reference | UC-04 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Sales Man / Employee Recovery Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Sales Man / Employee Recovery Button | Click Sales Man / Employee Recovery Button | Daily Man / Employee Recovery Open | We Can Manage Recovery Records Here |
| Status | Sucess | | | | |

Table 03: Daily Sale Management Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Test Case | | | | | |
| Name | Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Service | | | | |
| ID | TC-06 | | | | |
| Use Case Reference | UC-06 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Button | Click Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Button | Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Opened | We Can Manage Expenses Here |
| Status | Sucess | | | | |

Table 06: Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Rate Management Test Case | | | | | |
| Name | Rate Management Service | | | | |
| ID | TC-07 | | | | |
| Use Case Reference | UC-07 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Daily Expenses & Closing / Vehicle Expenses / Miscellaneous Expenses Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Rate Management Button | Click Rate Management Button | Rate Management Open | Manage Rates According to out Available Stocks |
| Status | Sucess | | | | |

Table 07: Rate Management Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Daily Activity Test Case | | | | | |
| Name | Daily Activity Service | | | | |
| ID | TC-08 | | | | |
| Use Case Reference | UC-08 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Daily Activity Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Daily Activity Button | Click Daily Activity Button | Daily Activity Open | We Can View Daily Activity here |
| Status | Sucess | | | | |

Table 08: Daily Activity Management Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Profit & Loss Test Case | | | | | |
| Name | Profit & Loss Service | | | | |
| ID | TC-09 | | | | |
| Use Case Reference | UC-09 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Any Device with Web browser | | | | |
| Assumption | The user is on Profit / Loss Screen. | | | | |
| Pre-Requisite | The user must have a registered account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Profit / Loss Button | Click Profit / Loss Button | Profit / Loss Open | We Can View Profit / Loss here |
| Status | Sucess | | | | |

Table 09: Profit / Loss Test Case

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employee Record / Sales Man Record Test Case | | | | | |
| Name | Employee Record / Sales Man Record | | | | |
| ID | TC-10 | | | | |
| Use Case Reference | UC-10 | | | | |
| Objective | Check Login module is working properly. | | | | |
| Environment | Android App is Opened | | | | |
| Assumption | The user is Login in Android app | | | | |
| Pre-Requisite | The user must have a Valid account already. | | | | |
| Test Procedure | Steps | Action | Input | Expected Result | Actual Result |
| 01 | Open Employee Record / Sales Man Records | Click Employee Record / Sales Man Records Button | Employee Record / Sales Man Records Open | We Can View Graphical Representation of Recovery / Loan here |
| Status | Sucess | | | | |

Table 10: Employee Record / Sales Man Record Test Case

Summary

This chapter discussed the testing with its subjects as well as testing methodologies used in the testing of an application. Furthermore, we talk about the test cases and portray each of the test case in the form of table according to the functionality.