**SMA Test Report**

**Project:** Skybot Mobile Application Version 2.0

**Test Type:** Non Functional Testing

**Test Date**: 27-31.10.2024

**Tested By:** O.Solodka

**Network:**  Wi-fi, 5G,4G mobile Kyivstar

**Environment:** Android 14,

Version Software A536BXXSBEXH1,

Version One UI 6.1

Screen size “6,5”

Android 12,

Model: Teclast T50\_EEA

V1.06\_20230824

Screen size “11”

### **Objective**

The objective of non-functional testing for Skybot mobile application is to evaluate its performance, reliability, security, usability and compatibility across various devices and operating system versions. This testing aims to uncover potential issues affecting user experience that do not directly impact application functionality.

**Test Cases Overview:**

Total Test Cases Executed: 23

Test Cases Passed: 20

Test Cases Failed: 3

Test Cases blocked: 0

Success Rate: 86 %

**Testing Area**

* **Installation**

Successful: Installation and uninstallation were smooth

* **Performance**

Successful: App met the performance criteria under load

* **Security**

Successful: All critical security checks passed

* **Compatibility**

Issues: ***1. Localization:*** Several failures were noted in localization (both in general translation and RTL language support).

***2. Product Display:*** Significant issues with displaying products and product details were observed, including language inconsistencies and missing elements.

***3. Landscape Mode:*** The app did not support landscape mode, remaining locked in portrait orientation across both versions.

* **Fault Tolerance**

Successful: App recovered gracefully from unexpected inputs

* **Accessibility**

Unsuccessful: Identified issues in accessibility compliance

### **Detailed Test Results**

| **Requirement** | **ID/Test Cases** | **Status** | **Notes** |
| --- | --- | --- | --- |
| **0. Installing and Uninstalling an App** | 0.1 Download the Mobile App | Pass |  |
|  | 0.2 Launching the Mobile App | Pass |  |
|  | 0.3 Uninstalling an App from the Mobile Device | Pass |  |
| **12. Performance Testing** | 12.1 Application Load Time Verification | Pass |  |
|  | 12.2 Application Response Time Verification | Pass |  |
|  | 12.3 Endurance Testing Under Prolonged Load | Pass |  |
|  | 12.4 Verification of Efficient Memory Usage | Pass |  |
|  | 12.5 Verification of CPU Usage Efficiency | Pass |  |
|  | 12.6 Verification of Battery Usage Efficiency | Pass |  |
|  | 12.7 Load Testing Under High User Volume | Pass |  |
|  | 12.8 Stress Testing for Peak Load Durability | Pass |  |
| **13. Security Testing** | 13.1 Check Data Transmission over Secure Channels | Pass |  |
|  | 13.2 Check Storage of Confidential Data | Pass |  |
|  | 13.3 Check Access Restrictions and Authorization | Pass |  |
|  | 13.4 Check Abuse Prevention through Rate Limiting and Account Lockout | Pass |  |
| **14. Сompatibility Testing** | Test cases and test report for a mobile application, covering testing on various devices and different OS versions can be found at the following link: <https://github.com/OleksandraSolodka/Prometheus-Internship-QAManual-Program/blob/main/Skybot%20Mobile%20Application/OSolodka_CompatibilityTestingSMAVersion2.0.docx> |  | **Test Cases Overview:**  Total Test Cases Executed: **24**  Test Cases Passed: **16**  Test Cases Failed: **8**  Success Rate: **66.67%** |
| **15. Fault Tolerance Testing** | 15.1 Resilience to Invalid Data Input in Forms | Pass |  |
|  | 15.2 Application Resilience During Server Failure | Pass |  |
|  | 15.3 Recovery after Server Downtime During Data Load | Pass |  |
|  | 15.4 App Stability with Prolonged Server Response Times | Pass |  |
| **16. Accessibility testing** | 16.1 Accessibility Version Check | Pass |  |
|  | 16.2 UI Element Label Check | Fail | Interface elements don’t have clear and accurate labels explaining their purpose |
|  | 16.3 Color Contrast Test | Fail | The color contrast doesn’t meet WCAG standards |
|  | 16.4 Alternative Text Check for Images | Fail | Images don’t have alternative text describes content |

### **Conclusions**

Following the non-functional testing of Skybot Mobile Application version 2.0, the key results are as follows:

* **Problematic Areas:**
  1. **Compatibility:** Several significant issues were identified, including:
     + Localization inconsistencies, particularly in translation and RTL language support.
     + Issues with product display, including language inconsistencies and missing elements.
     + Lack of support for landscape mode, with the app remaining locked in portrait mode across devices.
  2. **Accessibility:** The app does not meet accessibility standards, which may present challenges for users with disabilities:
     + Insufficient color contrast that does not meet WCAG standards.
     + Missing alt text for images and unclear labels for UI elements.

### **Recommendations**

1. **Localization Improvements:** Conduct a more thorough review and adjustment to support multilingual and RTL languages effectively.
2. **Landscape Mode Implementation:** Add support for landscape orientation for improved adaptability across different devices.
3. **Accessibility Enhancements:** Improve the accessibility of the interface by adding alternative text for images and enhancing color contrast to meet WCAG standards.

In summary, the app demonstrated stable performance, met critical security requirements, and exhibited fault tolerance. However, compatibility and accessibility issues could negatively impact the overall user experience and should be addressed further before release.