Test Summary Report

# 1. Purpose

This document explains the various activities performed as part of Testing of ‘Shopping-list’ application.

# 2. Application Overview

The 'Shopping-list' application is a comprehensive task management tool designed to optimize shopping organization. It allows users to add, delete, edit, and manage tasks efficiently. Real-time updates ensure the list is always current. The user-friendly interface facilitates easy access to all functions, enhancing productivity and ensuring all shopping needs are met with precision and ease.

# 3. Testing Scope

### a) In Scope

Functional testing covered task creation, deletion, editing tasks and completion management.

### b) Out of Scope

Stress testing was not included in the testing scope for this application, despite having conducted performance testing.

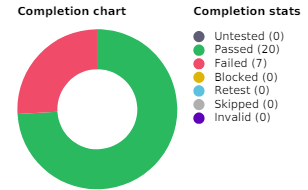
### c) Items not tested

Integration testing with external systems or APIs was deferred due to current project constraints. This aspect will be prioritized for validation in subsequent testing phases to ensure seamless integration and functionality.

# 4. Metrics

### d) No. of test cases planned vs executed e) No. of test cases passed/failed

|  |  |  |  |
| --- | --- | --- | --- |
| **Test cases planned** | **Test cases executed** | **TCs Pass** | **Tcs Failed** |
| 27 | 27 | 20 | 7 |



### f) No of defects identified and their Status & Priority

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **High** | **Medium** | **Low** | **Total** |
| **Closed** | 6 | 0 | 1 | 7 |
| **Open** | 0 | 0 | 0 | 0 |

### g) Defects distribution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Creation** | **Deletion** | **Editing** | **Management** | **Total** |
| **High** | 2 | 0 | 4 | 0 | 6 |
| **Medium** | 0 | 0 | 0 | 0 | 0 |
| **Low** | 1 | 0 | 0 | 0 | 1 |
| **Total-->** | 3 | 0 | 4 | 0 | 7 |

# 5. Types of testing performed

1. **Functional Testing:**

* Task addition, deletion, editing, and completion management functionalities were thoroughly tested.
* Verification of user interface adaptability to different device states (folded and unfolded) and orientations).

1. **Usability Testing:**

* Assessment of smooth scrolling and user interaction with the shopping list.
* Testing application responsiveness during various user actions, such as task management and interface adaptation.

1. **Compatibility Testing:**

* Testing across different operating system versions to ensure consistent performance.
* Validation of application behavior under different network conditions (Wi-Fi and mobile internet).

1. **Reliability Testing:**

* Verification of application stability across scenarios like device restarts, interruptions (calls and notifications), and power management (charging and low battery conditions).

1. **Performance Testing:**

* Load testing to assess the application's performance under varying user loads.
* Stress testing to evaluate application stability under peak loads and stress conditions.

1. **Installation and Upgrade Testing:**

* Successful installation and uninstallation of the application from the APK file.
* Testing application behavior during upgrades and reinstallation after uninstallation.

# 6. Test Environment & Tools

|  |  |
| --- | --- |
| **Application name** | Shopping-list |
| **Application version** | 1.0 |

# 7. Lessons Learnt

|  |  |  |
| --- | --- | --- |
| **S. No** | **Issues faced** | **Solutions** |
| 1 | Completed tasks were not moving to the bottom of the list. | Identified a sorting logic issue where completed tasks were not automatically relocated. Implemented a sorting algorithm based on task status (completed/uncompleted) and timestamp to ensure completed tasks are consistently displayed at the bottom of the list. Conducted thorough testing to validate the sorting functionality across various scenarios. |
| 2 | Challenges with saving special characters in task names after editing. | Implemented encoding and decoding mechanisms to correctly handle special characters in task names during editing and storage. Conducted extensive validation testing with various special characters to ensure compatibility and data integrity. |
| 3 | Limitations encountered when creating more than 10 tasks. | Reviewed application logic and scalability constraints related to task creation limits. Implemented optimizations to handle larger task volumes while maintaining application performance and user experience. Conducted load testing to validate scalability improvements. |

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# 8. Recommendations

* Enhance error handling and validation mechanisms to address edge cases such as special characters, maximum character limits, and input formats to improve overall data integrity.
* Introduce a user feedback mechanism within the app to gather insights on usability and feature enhancements directly from users.
* Optimize performance by conducting regular load testing to ensure the application can handle peak user loads without compromising speed or stability.
* Provide clear user guidance and tooltips for effective use of task management features, ensuring a seamless and intuitive user experience.

# 9. Best Practices

* The testing team opted to utilize Android Studio emulators instead of physical devices for testing purposes. This decision resulted in significant cost savings associated with device procurement, maintenance, and upgrades.
* Emulators provided a flexible testing environment, allowing for rapid deployment of test cases across different Android versions and device configurations without the need for physical hardware.
* Regular updates and configurations of emulators ensured that testing could simulate a wide range of real-world scenarios, enhancing the thoroughness and coverage of testing efforts.
* Emulator-based testing facilitated seamless integration with continuous integration and delivery pipelines, promoting efficient testing cycles and faster feedback loops for developers.

# 10. Exit Criteria

a) All test cases related to task addition, deletion, editing, and completion management functionalities have been executed and passed successfully – **Yes.**

b) All defects categorized as Critical, Major, and Medium severity have been identified, verified, and closed after resolution – **Yes.**

# 11. Conclusion/Sign Off

As the Exit criteria was met and satisfied as mentioned in Section 10, this application is suggested to ‘Go Live’ by the Testing team. Appropriate User/Business acceptance testing should be performed before ‘Go Live’.