THE "COTOPHOTOCHAT" APP

Test strategy

Revision History

Date	Version	Author	Description
10.05.2023	1.0	Valeriia Serdiuk	Creating a test strategy for testing the mobile app

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Scope

The QA Lead is a person who will review the test strategy.
The Product Owner and QA manager are a people who will approve the test strategy.
The main testing activities will carry out in 3 weeks:

Testing activity	Timeline
Test plan	3 days
Test design	7 days
Test execution	7 days
Regression testing	2 days
Results analysis	2 days

Test Approach

This project will take a methodical and analytical approaches to testing because the Product Owner has provided requirements for the project.
The testing process includes:

1. Functional testing.
2. Installation testing.
3. Usability testing.
4. Ui testing.
5. Performance testing
6. Regression testing

The testing levels are as follows:

1. Unit testing.
2. Integration testing.
3. System testing.
4. Acceptance testing.

The roles and responsibilities are shown in the table below:

Role	Responsibilities
QA Lead	• Writes test-plan • Performs regression testing • Performs system testing
QA Manager	• Approves test-strategy • Distributes the work among the QA team • Completes test-report with metrics • Version control
QA Team	• Performs testing process • Performs unit and integration testing • Reports any defects found

Defects should be reported in Jira and prioritized based on their impact. For example, if the defect is considered a 'Blocker' or 'Critical,' the tester should report it to the QA manager immediately for further review.

Regression testing involves re-testing a previously tested program following modification to ensure that faults have not been introduced or uncovered as a result of the changes made. In this release this will be covered by the ongoing use of manual tests being executed after each successful build of the application, prior to release of the build for general testing use.

Test Environment

Developers perform unit testing in the development environment.
Integration and system testing take place in the HockeyApp beta test environment.
The backup of test data and restore strategy for a mobile app, with a frequency of every day at 5 pm, involves the following considerations:

- Backup storage: Google Cloud Storage.
- Automate backup process: Set up a scheduled job using a task scheduler or a cloud-based service to initiate the backup every day at 5 pm.
- Incremental backups: Perform incremental backups to save time and storage space. Only backup the data that has changed since the last backup.
- Access controls and permissions: Only QA Lead and QA Manager have access to initiate the restore process and ensure appropriate permissions.
- Monitoring and maintenance: Monitor the backup process to ensure it runs successfully and resolve any errors promptly.

Testing Tools

Test case management	TestRail
Defect tracking	Jira
Reporting and metrics	Jira Confluence
Unit coverage	GitHub
API	Postman
Perfomance testing	JMeter

Release Control

Tickets must be moved to 'Done' status and tagged with a release number before they can be released. All 'Blocker' or 'Critical' tickets must be resolved before a release.
Version and release control is performed by the QA manager.

Risk Analysis

Here are some possible risks to consider:

1. Large device variation: It is not possible to test all devices. After release, it may turn out that the app does not work properly on a particular device
2. Security vulnerabilities: Mobile apps can be vulnerable to security threats such as data leakage, unauthorized access or malicious attacks.
3. PlayMarket guidelines: Mobile apps must comply with the guidelines and restrictions imposed by app stores. Risks may arise if the app violates any guidelines, resulting in rejection or removal from the store. Testing must ensure that the app store is compliant.
4. Performance and load: Mobile apps must perform well under a variety of workloads and usage scenarios. Risks include slow response times, crashes, or excessive battery consumption.
5. Operating system updates: Regular updates to mobile operating systems can cause compatibility issues that affect application performance or functionality.
6. User feedback and expectations: User expectations will not be met.
7. Staff: Staff shortages.
8. Timelines: Too short a time frame.

Review and Approvals

The startup project has the potential to expand over time. We must ensure that the project is properly supported.
The following people are required to approve the test strategy:

Approval By	Approval
QA Manager	
QA Lead	
Product Owner	
QA team representative	