**LEVEL 1**

Privat bank

High level test:

* Test card to card transaction

Low level tests:

| **Test Case ID** | | TC\_001 | **Test Case Description** | | Transaction between two PrivatBank cards | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Created By** | | MO | **Reviewed By** | |  | | **Version** | | 1.0 | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **QA Tester’s Log** | |  | | | |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Tester's Name** | |  | **Date Tested** | |  | | **Test Case (Pass/Fail/Not Executed)** | |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **S #** | **Prerequisites:** | | |  | **S #** | **Test Data** | | | | |
| 1 | Android 9.0 | | |  | 1 | number = 3809900000 Pass1 = df12@434c | | | | |
| 2 | Installed Privat24 | | |  | 2 | number = 3809900001 Pass2 = df12@434c | | | | |
| 3 | Authorized with credentials from first row of test data | | |  | 3 | test\_credentials = 5168525498785645 | | | | |
| 4 | Card with balance 100 grn | | |  | 4 |  | | | | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Test Scenario** | Verifying the transaction from PrivatBank card to another PrivatBank card | | | | | |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Step #** | **Step Details** | | **Expected Results** | | **Actual Results** | | | **Pass / Fail / Not executed / Suspended** | | |
|  | |
| 1 | Click “Переказ на карту” | | Windows with 4 fields (З картки, На карту, Сумма, Призначення) and displayed | |  | | |  | | |  | |
| 2 | Choose in field “З картки”card with balance 100 grn | | Card displayed in field | |  | | |  | | |  | |
| 3 | Enter test\_credentials in field “На карту” | | Data can be entered and displayed in field | |  | | |  | | |  | |
| 4 | Enter 50 in field “Сумма” | | Data can be entered and displayed in field | |  | | |  | | |  | |
| 5 | Keep field “Призначення” empty | |  | |  | | |  | | |  | |
| 6 | Click “Продовжити” | | New window opened with summary of previous field input | |  | | |  | | |  | |
| 7 | Click “Оплатити 50.00 UAH” | | New window opened with spining loading line.  Message “Платіж успішно проведено” | |  | | |  | | |  | |
| 8 | Click “На головну” | | Main window displayed | |  | | |  | | |  | |
| 9 | Check balance on card from step 2 | | Balance on card equal to 50 grn | |  | | |  | | |  | |
| 10 | Logout from account | | Authorisation page displayed | |  | | |  | | |  | |
| 11 | Authorize with credentials from second row of test data | | Authorization successful.  Main page displayed | |  | | |  | | |  | |
| 12 | Check balance of the card with test\_credentials data | | Balance on card equal to 50 grn | |  | | |  | | |  | |
|  |  | |  | |  | | |  | | |  | |
| **Test Case ID** | | TC\_002 | **Test Case Description** | | Transaction between PrivatBank card and other bank | | | | | |
| **Created By** | | MO | **Reviewed By** | |  | | **Version** | | 1.0 | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **QA Tester’s Log** | |  | | | |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Tester's Name** | |  | **Date Tested** | |  | | **Test Case (Pass/Fail/Not Executed)** | |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **S #** | **Prerequisites:** | | |  | **S #** | **Test Data** | | | | |
| 1 | Android 9.0 | | |  | 1 | number = 3809900000 Pass1 = df12@434c | | | | |
| 2 | Installed Privat24 | | |  | 2 | number = 380998954892 Pass2 = df12@434c | | | | |
|  | Installed Monobank | | |  | 3 | test\_credentials = 537598785645 | | | | |
| 3 | Authorized in Privat24 with credentials from first row of test data | | |  |  |  | | | | |
| 4 | Card with balance 100 grn on Privat24 | | |  |  |  | | | | |
|  |  | | |  |  |  | | | | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Test Scenario** | Verifying the transaction from PrivatBank card to another bank | | | | | |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Step #** | **Step Details** | | **Expected Results** | | **Actual Results** | | | **Pass / Fail / Not executed / Suspended** | | |
|  | |
| 1 | Click “Переказ на карту” in Privat24 | | Windows with 4 fields (З картки, На карту, Сумма, Призначення) and displayed | |  | | |  | | |  | |
| 2 | Choose in field “З картки”card with balance 100 grn | | Card displayed in field | |  | | |  | | |  | |
| 3 | Enter test\_credentials in field “На карту” | | Data can be entered and displayed in field | |  | | |  | | |  | |
| 4 | Enter 50 in field “Сумма” | | Data can be entered and displayed in field | |  | | |  | | |  | |
| 5 | Keep field “Призначення” empty | |  | |  | | |  | | |  | |
| 6 | Click “Продовжити” | | New window opened with summary of previous field input | |  | | |  | | |  | |
| 7 | Click “Оплатити 50.00 UAH” | | New window opened with spining loading line.  Message “Платіж успішно проведено” | |  | | |  | | |  | |
| 8 | Click “На головну” | | Main window displayed | |  | | |  | | |  | |
| 9 | Check balance on card from step 2 | | Balance on card equal to 50 grn | |  | | |  | | |  | |
| 10 | Open Monobank application | | Authorisation page displayed | |  | | |  | | |  | |
| 11 | Authorize with credentials from second row of test data | | Authorization successful.  Main page displayed | |  | | |  | | |  | |
| 12 | Check balance of the card with test\_credentials data | | Balance on card equal to 50 grn | |  | | |  | | |  | |

| **Test Case ID** | | TC\_003 | **Test Case Description** | | Transaction between two PrivatBank cards | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Created By** | | MO | **Reviewed By** | |  | | **Version** | | 1.0 | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **QA Tester’s Log** | |  | | | |  |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Tester's Name** | |  | **Date Tested** | |  | | **Test Case (Pass/Fail/Not Executed)** | |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **S #** | **Prerequisites:** | | |  | **S #** | **Test Data** | | | | |
| 1 | Android 9.0 | | |  | 1 | number = 3809900000 Pass1 = df12@434c | | | | |
| 2 | Installed Privat24 | | |  |  |  | | | | |
| 3 | Authorized with credentials from first row of test data | | |  |  |  | | | | |
| 4 | Card with balance 100 grn | | |  |  |  | | | | |
| 5 | Card with balance 0 grn | | |  |  |  | | | | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Test Scenario** | Verifying the transaction from PrivatBank card to another PrivatBank card of the same user | | | | | |  |  |  |  | |
|  |  |  |  |  |  |  |  |  |  |  | |
| **Step #** | **Step Details** | | **Expected Results** | | **Actual Results** | | | **Pass / Fail / Not executed / Suspended** | | |
|  | |
| 1 | Click “Переказ на карту” | | Windows with 4 fields (З картки, На карту, Сумма, Призначення) and displayed | |  | | |  | | |  | |
| 2 | Choose in field “З картки”card with balance 100 grn | | Card displayed in field | |  | | |  | | |  | |
| 3 | Choose in field “На карту” card with 0 grn | | Card displayed in field | |  | | |  | | |  | |
| 4 | Enter 50 in field “Сумма” | | Data can be entered and displayed in field | |  | | |  | | |  | |
| 5 | Keep field “Призначення” empty | |  | |  | | |  | | |  | |
| 6 | Click “Продовжити” | | New window opened with summary of previous field input | |  | | |  | | |  | |
| 7 | Click “Оплатити 50.00 UAH” | | New window opened with spining loading line.  Message “Платіж успішно проведено” | |  | | |  | | |  | |
| 8 | Click “На головну” | | Main window displayed | |  | | |  | | |  | |
| 9 | Check balance on card from step 2 | | Balance on card equal to 50 grn | |  | | |  | | |  | |
| 10 | Check balance on card from step 3 | | Balance on card equal to 50 grn | |  | | |  | | |  | |

**LEVEL 2**

Three-point estimation of test case execution:

| ID | Optimistic | Mean | Pessimistic | Estimation |
| --- | --- | --- | --- | --- |
| TC\_001 | 0.25h | 0.5h | 1h | 0.5h |
| TC\_002 | 0.3h | 0.5h | 1.25h | 0.5h |
| TC\_003 | 0.25h | 0.5h | 1h | 0.5h |

WBS:

| **No** | **Type of Task** | **Creation of test cases, min** | **Estimated time of execution, min** | **Responsible Person(s)** | **Deadline** |
| --- | --- | --- | --- | --- | --- |
| **1** | **Card transaction** | 65 | 55 | MO | 13/09/2022 |
| 1.1 | Transaction between PrivatBank card and other bank | 30 | 20 | MO | 13/09/2022 |
| 1.2 | Transaction between PrivatBank card and other bank | 20 | 15 | MO | 13/09/2022 |
| 1.3 | Transaction between two PrivatBank cards | 15 | 10 | MO | 13/09/2022 |

**LEVEL 3**

Paws

**Test Strategy**

**Revision History**

| Date | Version | Author | Description |
| --- | --- | --- | --- |
| 13.09.2022 | 1.0 | Maksym Osintsev | Initial creation of test strategy |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

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# Scope

The main scope of this document is to define such statements as test approach, test environment, testing tools, release control, risk analysis. Create appropriate data, for each topic, and deliver clear vision and realisation of testing process, during product testing, to deliver proper quality of a developing product

# Test Approach

A test approach is the test strategy implementation of a project which defines how testing would be carried out, defines the strategy which needs to be implemented and executed, to carry out a particular task.

For this product, will be used proactive tests that will be designed as early as possible to find and fix the defects.

Mainly, approach will be made of mutual implementation of Analytical and Methodical approaches with focusing testing on the most critical functionality (risk based) and failure based (error guessing and fault attack) with experience-base.

The project is using an agile approach, with weekly iterations. At the end of each week the requirements identified for that iteration will be delivered to the team and will be tested.

**Testing levels:**

**Unit testing:**

The aim is to test each part of the software by separating it. It checks that component are fulfilling functionalities or not. Performed by developers.

**Integration testing:**

Integrating testing checks the data flow from one module to other modules. Performed by testers.

**System Testing:**

System testing is performed on a complete, integrated system. It tests the overall interaction of components. It involves load, performance, reliability and security testing.

**Acceptance testing:**

Acceptance testing conducted to find if the requirements of a specification or contract are met as per its delivery.

**Roles and Responsibilities**

| Name | Role | Responsibilities |
| --- | --- | --- |
| Maksym Osintsev | Android Developer | Develop the system/application  Develop Use cases and requirements in collaboration with the Product manager and others team members  Follow RTM changes  Conduct Unit, system, regression, and integration testing for iOS/Android/server environment  Support user acceptance testing |
| Taras Liviev | iOS Developer |
| Ahmad Husna | QA | Develop Use cases and requirements in collaboration with the Product manager and others team members  Develop test suits and report found defects  Follow RTM changes  Conduct system, UI, regression, and integration testing for iOS/Android/server/ environment |
| Nicolas Buitrigos | Front-end | Develop UI and implement it with defined framework  Follow approved UI/UX practice  Coordinate with Product manager and QA to deliver best UX options |
| Komathy Raja | Back-end | Develop server and database integration and maintenance with defined functional |
| Nuraini Mohd Isa | Product manager | Acts as a primary contact for developers  Create and update RTM  Participation in the project plan creation/update process.  Planning and organization of test process for the release.  Coordinate with all team members and client on any issues/problems encountered during development/testing/etc |
| Elena Minko | Test Lead | Coordinate with team members on any issues/problems encountered during process and assign tasks after Project Manager revision  Constant contact with members and Project Manager, for timely decision |
| Konstantin Grishenko | Developer Lead |

**Types of testing :**

Functional Testing:

Verify creation of account from user side

Verify possibility of account editing by the user

Verify access to the main page of application for user

Verify access to gallery for upload pictures

Verify like system from users

Performance Testing:

Verify response time to access main page

Verify response time to access personal gallery

Verify response time to access another user gallery

Verify download speed of posts for main page

Interrupt Testing:

Verify correct deployment of the application after call interruption

Verify correct deployment after minimization of application

Verify correct deployment after restart of mobile phone

Verify correct deployment with floating window

Usability Testing:

Verify ease of navigation through a sample set of screens.

The application shall be easy-to-use and shall be appropriate for the target market of animal lovers

The user-interface shall be represented by designed layout

Data and Database Integrity Testing:

Verify access to database of cat pictures for each user

Verify simultaneous record read accesses.

Verify correct retrieval of update of database data.

Load Testing:

Verify system response when loaded with 50000 logged on user.

Verify system response when 5000 simultaneous user active

Installation and Launch testing:

Verify installation and launch on iOS platforms

Verify installation and launch on Android platforms

Security testing:

Verify Logon security through username and password mechanisms.

Verify two-step identification authorization

Regression testing:

Check notified critical and major defects are resolved

**Defect triage:**

Each bug is prioritized based on its severity, frequency, risk. The goal of Bug Triage is to evaluate, prioritize and assign the resolution of defects.

Members that take part in Defect Triage Meetings are

* Project Manager
* Test Team Leader
* Development Team Leader

Optional Participants

* Developers
* Testers

# Test Environment

**List of testing platforms**

| Name | Platform |
| --- | --- |
| iOS | iOS 12.0 and higher |
| Android | Android 6.0 and higher |
| AWS Amplify | Version 3.4.3 |

**Test Environment**

| Android | iOS |
| --- | --- |
| Redmi Note 9 | iPhone 12 |
| Google Nexus 10 | iPad pro |
| One Plus 9 | iPhone 10 |

**Test Data**

Login data must be created with clear and easy to understand input.

For password or invalid input, can be used any symbol generator

Server configuration defined by default deployment of AWS Amplify and changes based on project/test needs

All testing data (usernames, passwords, server configuration, database sets , list, images, different attachments) stores on FTP server located on private company server

Backup occurs every 24h at 1:00am and stores information up to 1 month.

# Testing Tools

Tools, that will be implemented on product development must cover defect tracking, problem capturing, creation and management of test cases.

These requirements covered with products bellow:

| Requirement | Product |
| --- | --- |
| Defect tracking | Jira |
| Test Cases | Testrail |
| Screenshot/Video capture | Snagit 21/Lighshot |
| Project management | Testrail |
| Performance test | Apache JMeter |
| Security test | W3af |

# Release Control

| Date | Version | Responsible | Modification |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Risk Analysis

| Risks | Possible resolving |
| --- | --- |
| The build contains many serious defects which seriously or limit testing progress. | Priorities critical/high defects on near sprints to resolve limitation of testing progress |
| Software/Hardware problems | Create inspection of software/hardware issues.  If after inspection, fixing of these problems is relevant, implement it.  If not, create work around.  If problems progress to the blocking environment of development, create a consideration on migration to similar by function analogue |
| Availability of devices | Create a temporal simulation of device on desktop, until requested devices will be unavailable |
| New features and modification which have not been planned in advance | New features can be implemented, with subsequent agreement on budget and time increase |

# Review and Approvals

Document signed and approved by:

| Initials | Role | Signature |
| --- | --- | --- |
|  |  |  |
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|  |  |  |