

TAKA APPLICATION

Test Plan

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Version History

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1.0.0	2023/09/01	Initial version, Scope of work is updated, Release plan is update	Mir Mohaiminul Islam	Enisha Ashrefa
1.0.1	2023/09/08	Scope of work and QA Scope of work file is update	Takia Maliha	Enisha Ashrefa
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Abbreviation List

Term	Abbreviation
GUI	Graphical User Interface
PC	Personal Computer
OS	Operating System

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1. Introduction

Project **Taka** involves the development of a comprehensive mobile financial service system under the authority of Bangladesh Bank.

This existing system is currently at version 1.03. The client's objective is to revamp the system entirely using C#, where our company will be responsible for creating new services and introducing additional features. Following the integration of new features and functionalities, and a thorough 1.5-month testing phase, we aim to launch the latest version of the **Taka** application, which will offer mobile financial services.

The provided Test Plans delineate the testing process for the Taka application's functionality. This document primarily aims to ensure clarity on the overall testing procedures, quality assurance plan, testing scope, test acceptance criteria, delivery timeline, test reporting mechanisms, and more.

2. High Level Test Objectives

Our Main purposes are to ensure the overall quality of the product after feature enhancement, new feature implementation, issue fixing. There are some test objectives we will follow here:

- Ensure the overall functionality of Application works as expected of requirement.
- Our ultimate goal is to prevent bugs and if bugs found, we will ensure that the bug or issue is fixed.
- Make sure that the result meets the requirement.
- Ensure that the product satisfies the requirement specification.
- Achieve the confidence of customers by providing quality product.

3. Reference

Ref. No	Document Title
1.0	Client Provided Figma Forms https://www.figma.com/file/%BF%EF%BC%89?node-id=530%3A0
2.0	Existing system https://staging.hotelrev.info/

3.0	http://redmine.companyname.com/redmine/documents/0000
4.0	http://redmine.companyname.com/redmine/documents/0011

4. Test Strategy

4.1 Strategy

Our main goal is to test the Taka Project to ensure the quality and for that we will also follow the strategies:

- **UI/UX Testing:** When the UI of "Taka" application is prepared after that QA team will test it according to the requirement of Client as it is working as expected or not.
- **Pixel Perfection:** QA team should check the user interface by comparing with the figma design provided by the client.
- **Functional Testing:** Functional Testing will be conducted after the test cases are written for each functionality.
- **Non-Functional Testing:** Security testing and Load testing will be conducted after the functional testing.
- **Retesting:** After testing the functionalities any issues or bugs found then that will be send to the developer and after fixing the issues the functionalities will be retested to ensure that the bug or issues is fixed.
- **Regression Testing:** If any new code added, issue fixing or new functionalities added for that the existing functionalities should not be changed or modified that should be checked by QA team.

4.2. Test Types

Functional Testing:

Project functions will be tested as per project requirement. Negative and positive testing will be conducted as per requirements and system testing will be done here. Unit and integration test will be conducted by the developer.

Non-Functional Testing:

Security testing will be conducted. Load testing will check here also.

GUI Test:

This testing will cover the graphical user interface of the application to verify faultless implementation based on UI specifications. The goal of GUI testing is to see how the application and the user interact. This comprises how the application accepts user input and displays screen text, graphics, buttons, menus, dialogue boxes, icons, toolbars, and other elements.

Pixel Perfection: This testing will cover following:

- Responsiveness
- Alignment (Margin, Padding, Image Breathing space with other content, Position and placement).
- Image Ratio (make sure the aspect ratio is the desired screen, icon and image resolution).
- Font (size, color, style, Line spacing, Char spacing).

Regression Testing:

After developing a feature or adding or deleting a feature, there will be a regression testing happening, so it can easily check whether an area is affected by the changes or not.

Retest:

Retesting will be conducted to verify the reported bugs are fixed or not. The relevant test cases will be re-executed to ensure the fix.

5. Test Details

5.1 Module need to be tested

- Registration Module
- Cash In Module
- Cash Out Module
- Pay Bill Module
- Mobile Recharge Module
- Send Money Module

5.2 Features to be tested

SL.		Features/Modules
1		Complete UI/UX of the application
2	Registration	Registration
3		OTP Verification
4		Collecting User Information with NID & checked Through API
5		Verify PIN Code
6	Cash In	Cash In Merchant Number
7		Cash In using Bank
8		Cash In using Internet Banking(with API Integration)
9	Cash out	Cash Out through QR Code(with API Integration)
10		Cash Out through Merchant Number
11	Mobile Recharge	Mobile Recharge Prepaid & Postpaid(with API Integration)
12		Search Mobile Operator

13	Send Money	Send Money (Between two 'Taka' account holder).
14		Send Money (Between 'Taka' account holder and Bank. Need API Integration)
15	Pay Bill	Pay Bill (Need API Integration)
16		Search Organization
17		Transaction Number Generate
18		Receipt and Token
19		Balance Update After Transection
20	Login	Login
21		Forget PIN

5.3. Features not to be tested

Some features are not going to be tested they are:

- User Dashboard is not going to tested by our company because of requiring much time and resources.
- System failure (hardware issue) will not be tested. Client will take necessary action to recover.
- Session expiration at the time of transaction will not be checked because of requiring much time.
- Full Regression testing of **Pay Bill Module** will not conduct because of requiring much time and required more resources, so we may not cover the full regression test.

6. Test Estimation

Testing effort of **Taka** Application depends on several characteristics

- Requirements and Specifications

- Number of features of Product
- Complexity of the problem domain
- Software Architecture
- Project Timeline
- Risk Analysis

7. Release Procedure

Release process involves several sequential steps:

- **Requirement Analysis:** Initial phase where requirements are gathered and understood.
- **Development and Internal Release:** Development begins, and an internal release is made for Quality Assurance (QA) to start their testing.
- **QA Testing and Bug Reporting:** QA rigorously tests the internal release, identifying and reporting any bugs encountered.
- **Bug Fixing:** Developers address the reported bugs and work on their fixes.
- **Final Release Preparation:** A final release is prepared for the current phase, integrating bug fixes and updates.
- **Bug Verification by QA:** QA confirms that the bugs reported earlier have been successfully resolved in the final release.
- **Comprehensive Phase Testing by QA:** QA conducts thorough testing across the entire scope of the respective phase, documenting any new issues that arise.
- **Release Decision:** The release is evaluated based on the severity of remaining issues. If there are no critical problems and low-severity bugs, the application proceeds to release. If not, the release is postponed.
- **Deferring Bugs:** Any outstanding bugs are scheduled for resolution in the next development phase.

8. Test Suspension Criteria

Testing will be suspended, and QA team will reject the receivables upon the following criteria:

- Any blocking issue is identified during testing.
- Build release without release note.

- Respective bug is not fixed in dedicated release.

9. Test Acceptance Criteria

- Application UI should match Figma UI Specification:
 - (<https://www.figma.com/file/%BF%EF%BC%89?node-id=530%3A0>)
- Application does not have any blocking issue.
- Application has 90% Test case coverage.
- Application have covered supported in android & ios .

10. QA Task List & Working Process

Below Tasks will be performed by the QA Team:

- Requirement analysis
- Identify Test areas
- Test Case writing on identified test areas
- Prepare Test environment
- Execute Test Cases
- Bug reporting/retest
- Deliver Test report
- Perform Test closure activity
- Daily morning meeting
- Spec grooming meeting

11. Test Environment

To prepare test environment for “Taka” Application following software, hardware and tools will require:

Hardware Requirement:

- PC(Windows, MAC)
- Android Device(Emulator)
- IOS Device(Emulator)

Software Requirement:

- Operating System: Windows 11, MAC OS
- Microsoft Office
- Android & IOS Emulators.

Network Requirement:

- Internet Connectivity with PC.

Tools to be used:

- **Test Case management:** JIRA/Microsoft Excel
- **Document management:** Alfresco/Google Drive
- **Project management:** Redmine
- **Design Tool:** Figma
- **UI/Pixel Perfections Test Tool:** Emulator.

12. Schedule

Feature No	Features	Req. Analysis	Test Items	Test case Design	Start Date	Finalized Date
1	Registration <ul style="list-style-type: none"> • UI/UX • OTP Verification • Collecting User Information with NID & checked Through API • Verify PIN Code • Login • Forget PIN • Confirmation Notification 		7	158	08/09/2023	15/08/2023
2 & 3	Cash In <ul style="list-style-type: none"> • Cash In UI/UX • Cash In Merchant Number • Cash In using Bank • Cash In using Internet Banking(with API Integration) • Confirmation Notification • Balance Update Cash Out <ul style="list-style-type: none"> • Cash Out UI/UX • Cash Out through QR Code • Cash Out through Merchant Number • Confirmation Notification • Balance Update 		10	300	15/09/2023	22/09/2023
4	Pay Bill <ul style="list-style-type: none"> • API Integration 		4	105	22/09/2023	29/09/2023

	<ul style="list-style-type: none"> • Receipt and Token Generate after Transection • Confirmation Notification • Search Organization 					
5 & 6	Mobile Recharge <ul style="list-style-type: none"> • Search Mobile Operator (Mobile Operator API needed) • Prepaid • Postpaid • Recharge Confirmation • Balance Update Send Money <ul style="list-style-type: none"> • Send Money with a Merchant Number. • Send Money(Between two 'Taka' account holders). • Send Money(Between 'Taka' account holder and Bank.) • API Integration 		9	376	29/09/2023	06/10/2023

13. QA Summary Report

Phase	URL
1 st Release (V-1.0.0)	http://redmine.com/redmine/issues/000000
2 nd Release (V-1.0.1)	http://redmine.com/redmine/issues/000000
3 rd Release (V-1.0.2)	http://redmine.com/redmine/issues/000000
4 th Release (V-1.0.3)	http://redmine.com/redmine/issues/000000

14. Roles and Responsibilities

Resource Name	Roles and Responsibilities
Enisha Ashrefa	Project Manager
Xxxx	Programmer
Xxxx	Programmer
Xxxx	Programmer
Mir Mohaiminul Islam	QA
Takia Maliha	QA

15.Risk & Contingencies

Schedule:

- If SRS are not Cleared as per schedule, then we may not be able to meet the Testing deadline.
- If Releases for Testing are not provided as per schedule, then we may not be able to meet the deadline.
- Any changes to the requirements/scope could affect the test schedule.

Testing:

- Application may have side effects due to implementation of new features and function enhancement and this may affect to the functionality of existing feature due to lack of proper testing time. Mitigation can be the proper testing scope, testing time.

Application Risk:

- Application may behave abnormally, and major functions may not work in non-supported devices/interfaces.

- Application may also not work expectedly in latest browsers for which application modified and tested.

Application Risk:

- Application may behave abnormally, and major functions may not work in non-supported devices/interfaces. Application may also not work expectedly in latest browsers for which application is not modified and tested.

16. Test Exit Criteria

Testing process of the **Taka** application will be ended if following criteria are met:

- All specified functions are functioning properly.
- Major bugs are identified, resolved and retested.
- All test cases are executed and passed.
- Testing is ongoing but PM requested to release the system.

17. Bug Status Explanation

We maintain following status of the Bug in our Test Execution report:

- **New:** When any defect or bug is found and validated, the status of bug or defect is logged in as To-do.
- **In-Progress:** When assigned developer working on the respective ticket.
- **Done:** This status means that the issue is fixed, Now tested can retest.
- **Verified:** The tester re-tests the bug after it got fixed by the developer. If there is no bug detected in the software, then the bug is fixed, and the status assigned is "verified."
- **Reopened:** If the bug persists even after the developer has fixed the bug, the tester changes the status to "reopened". Once again, the bug goes through the life cycle.
- **Closed:** If the bug is no longer exists then the tester assigns the status "Closed."
- **Duplicate:** If the defect is repeated twice or the defect corresponds to the same concept of the bug, the status is changed to "duplicate."
- **Rejected:** If the developer feels the defect is not a genuine defect then it changes the defect to "rejected."
- **Deferred:** If the present bug is not of a prime priority and if it is expected to get fixed in the next release, then status "Deferred" is assigned to such bugs.
- **Not a bug:** If it does not affect the functionality of the application then the status assigned to a bug is "Not a bug".

18. Test Deliverables

Followings are the deliverables from QA for **Taka** project:

Test Deliverables before Testing

- Test Plan
- Test Cases

Test Deliverables after Testing

- Test execution report

Note: Known issues are needs to well mentioned in each Phase release note.

19. Test Plan Approval

Name	Role	Signature	Date
Enisha Ashrefa	Project Manager	Enisha Ashrefa	