*<AIUB BANK LIMITED>*

*Name:zaman mD sUMSUSH*

*ID:14-27822-3*

*NAME:JARIN MALIHA MOMIN*

*ID:14-27826-3*

*NAME:FARHA ANIKA*

*ID:14-8003-3*

*NAME:HAQUE SAYED TANZIMUL*

*ID:14-27318-2*

Test Plan

Version *<1.0>*

*<22/04/2018>*

VERSION HISTORY

[Provide information on how the development and distribution of the **Test Plan**, up to the final point of approval, was controlled and tracked. Use the table below to provide the version number, the author implementing the version, the date of the version, the name of the person approving the version, the date that particular version was approved, and a brief description of the reason for creating the revised version.]

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| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 1.0 | *Zaman Md Sumsush* | *22.04.2018* | *<name>* | *<mm/dd/yy>* | Test Plan draft |
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**UP Template Version:** 22/4/018

1. TEST PLAN IDENTIFIER:

1.1 The Test plan name is: AIUB BANK LTD.

1.2 The Test plan ID is: 2016-00100.

1.3 The test plan level is: 1.1

1.4 Date 22.12.2016

1.5 Version History

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1. REFERENCES

This Test plan for the AIUB BANK LTD official website is developed on supporting documents. Refer to the actual version of the documents as stored in the configuration management system. Here is the list for those reference documents.

List of the document that supported the test plan-

* 1. Software Requirements specification report on AIUB web site – version 1.1
  2. Project plan.
  3. Details design document.
  4. International standard test plan.
  5. Test plan temple IEEE-829

For AIUB Bank test plan, we have followed IEEE- 829 format and software specification requirement (SRS).

1. INTRODUCTION

“AIUB BANK WEBSITE” will be a represent of AIUB BANK LTD. We have been developed our website well equipped technology. The document is supposed to give a complete planning of a systematic strategy for software testing of AIUB BANK Official website. The AIUB BANK LTD is composed of numerous features. This test plan is actually designed to ensure those feature work up on the mark. Both directly and indirectly affected will be address hear. The AIUB BANK LTD contains all the information about the AIUB BANK employee and customer with each and every transaction. The document represent the master plan of the AIUB BANK LTD. As we know that a master plan is the living and breathing document that summarize the overall document that is needed to a software product. It also includes of the software testing including unit, system and beta testing. And our document is enough good to describe the all the test case. It is also outline of pass and fail criteria and indicates the planed date and week. We followed the IEEE-829 for the project and strictly followed what our teacher said.

* 1. OBJECTIVES: The document supports the flowing objectives
     1. Identify the approach that should be followed.
     2. Identify the fracture that should be tested.
     3. List of the recommended the requirement.
     4. Fix the schedule of intending test activities.
     5. Identify the rick at the time of test time.
     6. List the elements of the test activities.
     7. To detail the activities required to prepare for and support the test.
     8. To communicate to all responsible parties the tasks which they are to perform and the schedule to be followed in performing the tasks.
     9. To define the sources of information used to prepare the test plan.
     10. To define the test tools and environment needed to conduct the test.
  2. Scope:

Testing will began at the component label and work toward to the integration of the entire system. The document will provide the blue print of the high level approach of the AIUB BANK LTD website. It will guidance for the test engineer and a set of milestone for our manager. It will provide the major system functions of the AIUB BANK LTD against the customer requirement. This Master Test Plan and any other testing documents at this level serve only to present the schema for organizing testing of the CT Storage Service Class and the Association Services. The testing documentation at this level does not attempt to present detailed testing information.

1. Test Item

In this section we will provide a list of all those component that have been identify as a test item. It is assumed that unit testing will be done through Black box testing and testing of all module interface will be ensured.

* 1. High level testing
     1. AIUB BANK official website released version 1.1 and supporting the interface.
     2. Website running on the different platform.
     3. Test on Mozilla Firefox, Google corm and internet explorer.
     4. The internet between the flowing subsystem will be tested:
  2. Lower label test items: For the lower test the test item should be the program unit module.
     1. Withdrawal of funds.
     2. Query of account balance
     3. Transfer amount from one bank to another.
     4. Verify the card.
     5. The card used after start date.
     6. Card before expire date.
     7. The card have not been lost or stolen.
     8. The customer provides correct personal identification number.
     9. The system will confiscate the ATM card if it detects that a lost or stolen card has been inserted by a customer
     10. The system will allow the customer to enter the correct PIN in no more three attempts. The failure to provide correct PIN in three attempts will result in the confiscation of the ATM card.
     11. The system will ask for the transaction type after satisfactory validation of the customer PIN. The customer will be given three options: withdrawal transaction, or query transaction, or transfer transaction
     12. If a customer selects withdrawal transaction, the system will prompt the customer to enter account number and amount to be dispensed.
     13. For a withdrawal transaction, the system will determine that sufficient funds exist in the requested account, that the maximum daily limit has not been exceeded, and that there are sufficient funds available at the local cash dispenser.
     14. If a withdrawal transaction is approved, the requested amount of cash will be dispensed, a receipt will be printed containing information about the transaction, and the card will be ejected. The information printed on the receipt includes transaction number, transaction type, amount withdrawn, and account balance.
     15. If a customer selects query transaction, the system will prompt the customer to enter account number.

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* + 1. If a customer selects transfer transaction, the system will prompt the customer to enter from account number, to account number, and amount to be transferred.
    2. If a customer selects transfer transaction, the system will prompt the customer to enter from account number, to account number, and amount to be transferred
    3. The system will check if there are enough funds available in the ‘from account’, which are being requested for transfer to the ‘to account’.
    4. If the transfer transaction is approved, a receipt will be printed and the card will be ejected. The information printed on the receipt includes transaction number, transaction type, amount type, and account balance.
    5. The system will cancel any transaction if it has not been completed if the customer presses the Cancel button.
    6. The customer records, account records, and debit card records will all be maintained at the server and will not be the responsibility of the system.
    7. The system will enable an ATM operator to shut down or start up an ATM for routine maintenance.
    8. The system will enable an ATM operator to add cash to the cash dispenser.
    9. The system will not be responsible for opening or closing of accounts, and to create, update, or delete customer and debit card records. These tasks are performed elsewhere by the bank.
    10. The system will be linked with the bank server through communication systems, which are beyond the scope of the current system. It is assumed that this facility is always available.
    11. The system will not be responsible for the maintenance of the hardware devices of the ATM or network facilities.
    12. If a query transaction is approved, the system will print a receipt and eject the card. The information contained on the receipt includes transaction number, transaction type, and account balance

1. Software rick issue:

There are several issue which have been directly impact the website application and we have handle it carefully.

* 1. Delivery of the website and hosting.
  2. Reliability of the web hosting service.
  3. Poorly documented and changes.
  4. Back up recovery or files and database.
  5. Database security and safety.
  6. Failure of services detection and handling.
  7. The probability about the negative thing occur.
  8. The potential lost and impact within the event.
  9. Not enough training.
  10. Lack of test tools.
  11. Lack of involvement.
  12. Not enough budget or schedule for testing.
  13. Rapid change.

1. FEATURES TO BE TESTED:

|  |  |  |  |
| --- | --- | --- | --- |
| Feature | Likelihood | Impact | Priority |
| Fund withdrawal | HIGH | High | High |
| Quarry of balance | Medium | High | High |
| Transfer money | High | High | High |
| Authorized ATM card | Low | High | MEDIUM |
| Card deadline | LOW | Low | Low |
| Card lost | Medium | Medium | Medium |
| PIN verification | High | High | High |
| Number of timed | Medium | Medium | Medium |
| Enter account No | High | High | High |
| Check fund | High | High | High |
| Check minimum times | Medium | Medium | Medium |
| Print reset | Low | Low | Low |
| To enter account | High | High | High |
| Cancel | High | High | High |
| Link to the server | High | High | High |

1. Feature not to be tested:

|  |  |
| --- | --- |
| FEATURE | Description |
| New account | It need not to be tested because new account create by the admin only. |
| Password recovery | It need not to be tested because new account create by the admin only. |
| Change the services | It need not to be tested because new account create by the admin only. |
| Network security | Testing network security out of our scope. |

1. APPROACH (STRATEGY):
   1. Testing levels: The testing approach about the AIUB BANK is a master testing plan consist of unit testing, system or integration system and acceptance testing. It this project most of the tests have done by the developer and professional tester. Developer’s works to the system testing. And the professional tester the integration and system testing. And the acceptance test is done by the actual end user.
   2. Configure management: The programmer under development and those in full test phase controls tracking of change. The migration of the website from the first stage to the last stage tested according to the guideline. All kinds of change and modification change request will be handled by the published plans and guidelines.
   3. Test tools
      1. Selenium – Web browser automation.
      2. Microsoft visual studio – Load testing.
      3. CIUnit- for unit testing.
      4. Free mind- free mind mapping software.
      5. JSUnit – unit testing for JavaScript.
      6. Multi mechanize – performance and load testing.
      7. Capybara – acceptance test and framework.
   4. Meeting:

The test team will meet ones in a week to evaluate the progress and identify the problem and conduct a solution. The test teem also meets with the developer to merge their idea and about testing and quality of our website. Additional testing also may be called by the emergency situation. The inspection and the walkthrough also be perform.

* 1. Measures and Metrics: The flowing information will be collected by the development team during the unit testing process. The information will be provided to the test team at programmer turn over as well as be provided to the project team on a biweekly basis.
     1. Defects by module and severity.
     2. Defect origin.
     3. Time spent on defect resolution.
     4. Numbers of times a program submitted to test team as ready for test.

1. Item fail and passed criteria:

The test process will be completed when the project leader satisfied with the result of the test. For this, at least 90 percent of the test case must be passed. All functionalities must be covered in this test cases and most of all, high and medium severity must be detected and fixed. Minor defected, but make sure that it will not create major defects. The project leader will decide the whether the detected defects and critically will ensure the AIUB BANK of version 1.0 to delay.

1. SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS:
   1. SUSPENSION CRITERIA:

In general, testing will only stop if somehow the website is unavoidable. But certain portion of testes may be suspended or skipped if prerequisite tests have failed previously.

* 1. RESUMPTION REQUIREMENTS:

In the case of unavailability, testing will be resumed after across to the website is reestablished. And about the skipped test case, they can be tested after the related failed cases are fixed.

1. TEST DELIVERABLES:
   1. Master test plan.
   2. Unit test plan.
   3. System/Integration testing.
   4. Acceptance test plan
   5. Screen prototype.
   6. Defects repot and summaries.
   7. Tests logs.
   8. Automated test scripts and supporting test data.
2. REMAINING TEST TASKS:

|  |  |  |
| --- | --- | --- |
| Task | Assigned to | Status |
| Define unit testing and rules and producer | Test manager. Project manager. Developer |  |
| Create system/interrogation test plan | Test manager. Project manager. Developer |  |
| Create acceptance test plan | Test manager. Project manager. Clint |  |
| Verify prototype of the screen | Test manager. Developer. Clint |  |
| Verify prototype of report | Test manager. Developer. Clint |  |
| Automated test scripts | Test manager. Developer |  |
| Verify test data | Test manager. Project manager |  |

Table 3: Remaining test task.

1. Environment:

Our project about AIUB BANK LTD. We have two feature about this. First one is bank employee and second is the customer side. The website is maintained by the admin.

* 1. Environment needs
     1. Any kind of operation system supported by this site.
     2. Minimum hardware configuration of PC’s and server
     3. Reliable communication link with our website supported software.
  2. Description actual testing environment:
     1. Available client side environment
     2. Available admin side environment
     3. Available tests tools

1. STAFFING AND TRAINING NEEDS:

This is a website for the AIUB BANK LTD. So a lot of user will interact with the system as well as employee. For employee we have six person member to understand them. We can take beta test for the software.

* 1. Development period:
     1. General development and testing techniques and QA process.
     2. Simple knowledge about website development lifecycle, DB management system
     3. Development tools, testing tools that may be required to use.
  2. Production Period:
     1. Reverent people should be trained by developer and tester.
     2. Train at least two person who will maintains the AIUB BANK LTD software.

1. RESPONSIBILITIES:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Overall operation | Test manager | Project manager | Development team | Testing clients | Clint |
| Unit test documentation and execution | X |  | X | X |  |
| System/Interrogation test documentation and execution | X | X |  | X |  |
| Acceptance test documentation and execution |  |  | X | X | X |
| System design review | X | X | X |  |  |
| Details design review | X | X |  |  |  |
| Test producer and rules | X | X |  | X |  |
| Regressing testing | X |  | X | X |  |

1. SCHEDULE

Scheduling is a very important part of the project monument system. In a software project there are many steps like requirements generating, designing, development, QA and testing. Every steps have fixed times. To develop a test plan we need to consider the flowing parts:

* 1. Review the requirements document.
  2. Create a design, observe the test execution and produce summary writing.
  3. Develop a master test plan.
  4. Develop the unit, system/integration and acceptance test plan of the test projects.
  5. Review of the system design documents.
  6. Unit testing within the development phase.
  7. Allocating time for system/integration and acceptance testing.

All work should done within the given time and budget.

1. PLANNING RISKS AND CONTINGENCIES
   1. Unavailability of website.
   2. Unavailability of testing software
   3. Time problem
   4. Lack of tester.
   5. Large number of defects.
2. GLOSSARY

|  |  |
| --- | --- |
| IEEE | The institution of the electrical and electronic engendering. Publisher of the engineering department. |
| INTREAGATION TESTING | A label of test undertaken to validate to the interface face the internal component of a system. |
| BLKCK BOX TESTIG | Testing do what the system supposed to do. |
| SMOKE TESTING | Smoke Testing, also known as “Build Verification Testing”, is a type of software testing that comprises of a non-exhaustive set of tests that aim at ensuring that the most important functions work. The results of this testing is used to decide if a build is stable enough to proceed with further testing.t. |
| TEST ITEM | The individual element to be tested. There usually is one test object and many test items |
| WHITE BOX TESTING | White-box testing (also known as clear box testing, glass box testing, and transparent box testing, and structural testing) is a method of testing software that tests internal structures or workings of an application, as opposed to its functionality. |
| SYSTEM TESTING | System Integration Testing (SIT) is a black box testing technique that evaluates the system's compliance against specified requirements. |
| UNIT TESTING | Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. |