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| Home | AIUB  **American International University - Bangladesh**  **Course: Software Quality and Testing**  **Section: E**  **Final Assignment** |

## Developing a Test Plan for a AIUB Bank ATM Systems

**Submitted to:**

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# Test Plan Identifier:

TP\_AIUB\_BANK\_1.0

# References:

Given requirement documents

# Introduction:

This document is about master test plan of AIUB Bank ATM Systems. Here we will care the interaction between user and the systems where we need to think about impact of different user activities to the systems. The main target of doing this is to develop software test plan for AIUB Bank ATM Systems by following the requirements and functionalities. We will follow some testing technique like black box testing, white box testing and gray box testing. Beside different level of testing will be need one by one and these are unit testing, integration testing, System testing, Acceptance testing. The system will include number of ATMs, three types of transaction will be possible and there an ATM card usage will be considered valid if it meets all the declared conditions. A number of tasks may perform by user now we will plan to understand and justify the system behave against user.

# Test Items:

* Transaction menu selection
* Verifications of each condition
* Number of chances giving to enter pin
* Withdrawal amount limitation
* Printing details of transaction
* Prompt of different transaction
* Timely card ejection
* Cancelling transaction
* Enabling Routine maintenance
* Enabling to add cash
* Facilities are available
* User & admin access
* System apology

# Software risk issues:

The primary concerns in any system are risk detection and management where risks are identified and monitored prior to the program's execution. As a result, it is critical to understand what change to be suggest and what the fundamental areas are. Some of them for this project are-

* Possible transactions
* Declared conditions required
* Attempts possible for inserting pin
* Transaction menu selection
* Showing responsible prompt
* Withdraw possible
* Printing receipt
* Needed fields available to transfer transaction
* Cancelling transaction
* Routine maintenance
* Adding cash
* Stolen card inserted

# Features to be tested

* The interface and keyboard interaction will be tested to see if they are working properly.
* Need to test the transaction menu to ensuring all transaction activeness.
* All the conditions should pass to use ATM with valid status.
* System should confiscate the lost and inserted ATM card.
* If someone failure to provide correct PIN in three attempts will result in the confiscation of the ATM card.
* User can see the sufficient funds exist in the requested account.
* Maximum daily limit can’t be exceeded.
* Cash need dispensed accurately.
* Printed receipt should contain information about the transaction.
* Card should eject timely.
* For query transaction, system prompt the customer to enter account number.
* For transferring transaction, the system will prompt required fields.
* System should check if there are enough funds available in the ‘from account’ to transfer.
* The system should cancel any transaction if it has not been completed.
* Is the ATM operator can access routine maintenance.

# Features not to be tested

* Don’t need to test collecting records of the customer account to test as it will all be maintained at the server and will not be the responsibility of the system.
* We should not test opening or closing of accounts, and to create, update, or delete customer and debit card records as these tasks are performed elsewhere by the bank.
* It’s not required to test maintenance of the hardware devices of the ATM or network facilities as the system is not responsible for that.
* For different admin works there we don’t need validation/verification test.
* If the pin is ok there will be no activity to check even if it is stolen but not notified.
* Is printing working for all the ATMs

# Approach:

We learned two type of testing approach and these are manual testing and automated testing. Manual testing is a testing method that is performed by hand in order to detect faults without the use of tools or automation scripting. Software test automation uses specialized tools to control test execution and compares actual results to expected results. For this project we will use both type of testing approach.

# Item Pass/Fail criteria:

We need to set the pass/fail criteria for this project to measure is it passed or failed. If most of the test are related to the requirements and 80% or more of these was done properly then we can say the project passed. Similarly, if small amount of failed test has less relation with requirements and 75% is ok then we can say the project passed. But if requirements and failed test has good relation and 75% or less is ok then we should say its failed.

# Suspension Criteria and Resumption Requirements:

When targeted test is done for a specific amount of time and need to ready for meeting or assigning someone then the testing will be stop for a short period of time. After that when implementation will start the testing which will be done by programmer these will start at the same time in different level of testing tester required to start testing too.

# Test Deliverables:

Test deliverable will cover the outcome done by testing team and these are-

* Test cases
* Test plan
* Test Strategy
* Test Data Sets
* Test Evaluation Report
* Test Results
* Test Environment
* Test Defect log
* Execution log files
* Error log
* RTM
* Summary report

# Remaining test tasks:

* User interaction with GUI
* Test plan for integration level
* Different framework
* Database effectiveness
* Verifying different model
* Integration level test plan

# Environmental needs:

* A commonly used software is required to use the framework.
* Software or web app need to do automated testing
* For the team work some tool may requires to keep tracking deadline
* Specific type of environment may need to do some testing
* The interaction between programmer and tester should be smooth enough to execute everything properly for immediate feedback or help

# Staffing and Training needs:

With the initial project planning, the project manager can take the responsibility of a test engineer. Following the completion of the fundamental form, the approval and confirmation tests necessitate the involvement of two full-time tester. From them one should be tester at the beginning who will be the assistant of project manage. Then the project lead and Manager must work with the workforce of an organization to train on the internal operation of a project stream and to learn about more. In between if they need any kind of must help or solution then they may hire expert for specific amount of hour.

# Responsibilities:

**Project lead:**

* Ensuring budget and time schedule
* Checking risk and inform
* Available resources should be provided
* Take care of quality
* Taking regular feedback

**Quality assurance lead of the project:**

* Guide and demanding from test related employees
* Testing progress feedback
* Ensuring proper testing with the team
* Checking regular activity of tester

**Test planner:**

* Test planning
* Choose condition for testing
* Reporting test progress in meetings
* Test outcome review
* Set up steps to test
* Reporting problems
* Choosing exit requirements

**Testers:**

* Execution of function
* Choosing test data
* Testing with different possible input
* Evaluation of result
* Giving feedback
* Measuring issue weight
* User friendliness

# Schedule:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Serial | Tasks | Start | Duration | Responsibility |
| 1 | Unit testing | 3-11-21 | 6 days | Developer/Tester |
| 2 | Integration testing | 9-11-21 | 6 days | Tester/Developer |
| 3 | System review | 15-11-21 | 4 days | Testing team lead |
| 4 | Design review | 19-11-21 | 4 days | Testing team lead |
| 5 | Changing control | 21-11-21 | 2 days | Developer/Tester |
| 6 | Regression testing | 25-11-21 | 4 days | Tester |
| 7 | System testing documentation | 27-11-21 | 2 days | Tester/Team lead |
| 8 | System testing | 1-12-21 | 4 days | Tester |
| 9 | Changing control | 5-12-21 | 2 days | Developer/Tester |
| 10 | Regression testing | 7-12-21 | 4 days | Tester |
| 11 | System testing documentation | 11-12-21 | 2 days | Tester/Team lead |
| 12 | System testing | 13-12-21 | 4 days | Tester |
| 13 | Acceptance testing | 17-12-21 | 4 days | End user/Third party testing team |
| 14 | Reviewing test case | 21-12-21 | 4 days | Testing team lead |

**Gant chart:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Task | 03-11-21 | 05-11-21 | 07-11-21 | 09-11-21 | 11-11-21 | 13-11-21 | 15-11-21 | 17-11-21 | 19-11-21 | 21-11-21 | 23-11-21 | 25-11-21 | 27-11-21 | 29-11-21 | 01-12-21 | 03-12-21 | 05-12-21 | 07-12-21 | 09-12-21 | 11-12-21 | 13-12-21 | 15-12-21 | 17-12-21 | 19-12-21 | 21-12-21 | 23-12-21 |
| Unit testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Integration testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| System review |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Design review |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Changing control |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Regression testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Testing documentation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| System testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Changing control |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Regression testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Testing documentation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| System testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Acceptance testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reviewing test case |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Planning Risk and Contingencies:

The required number of test employee may not be obtained on time, which can be a danger for the working schedule. The schedule must be updated in time to account if needed. At the time of working some software may need to use which are not available at that moment. For this the person who will realize it firstly he/she should inform the lead and lead has to manage these resources if they are must. Similarly, if any contingencies will appear at the time of using available resource, then the person who will face should knock the lead immediately. If the possibility of finishing project in the deadline will decrease day by day manager or main project lead should take some necessary steps to fix with ay parameter even the schedule may need to change too. If any small problem of different team will appear then tester may knock them directly.

# Approvals:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Designation** | **Date** | **Signature** |
| Abul Hasan | Test lead, Datatasoft | 03-12-21 | Hasan |
| Kamal Hossain | Project manager, Datatasoft | 03-12-21 | Kamal |
| Salim Ullah | Development lead, AIUB Bank | 04-12-21 | Salim |
| Kiron Das | Director, IT, AIUB Bank | 04-12-21 | Kiron |