Manual Testing Report: Library and Account Management System

Overview

This document presents the **manual testing report** for the *Library and Account Management System*, focusing on key modules: **Account Management**, **Transaction Management**, **Fund Transfers**, and **Loan Management**. The aim of the testing is to ensure the system behaves as expected across various scenarios, with proper handling of both valid and invalid user inputs.

Manual testing was chosen for this project due to its straightforward implementation and ease of understanding during the early phases of software quality assurance. It allows for hands-on exploration of user workflows and helps detect usability or interface issues alongside functional bugs.

Testing Approach

Manual testing was performed by executing predefined test cases for each functional module. Each test case includes:

- **Test Scenario ID and Description**: Unique identifier and a brief of the test goal.
- **Test Case ID**: Specific case being tested.
- **Test Steps**: Step-by-step actions to simulate user behavior.
- **Expected Result**: The system behavior expected based on requirements.
- **Actual Result**: The observed behavior during testing.
- **Status**: Indicates whether the test passed or failed.

All test cases were executed manually by following the defined test steps and comparing the actual result with the expected result.

Modules Tested

1. Account Management

This module manages user account creation, update, and deletion.

- Tested account creation with valid and invalid inputs.
- Verified update functionalities (email and phone).
- Ensured deleted accounts are inaccessible.

2. Transaction Management

This module includes depositing and withdrawing funds.

- Tested valid deposit and withdrawal operations.

- Verified system response to insufficient balance.

3. Fund Transfers

Tests fund transfers between accounts.

- Checked valid transfers and system balance updates.
- Verified system behavior when transferring to invalid accounts or with insufficient funds.

4. Loan Management

This module handles loan application and eligibility.

- Verified successful loan applications.
- Tested validations for incomplete or ineligible loan applications.

Results Summary

- **Total Test Scenarios Executed**: 12
- **Total Passed**: 12
- **Total Failed**: 0
- **Pass Rate**: 100%

Each test scenario passed successfully, indicating the core functionalities are stable and working as intended in the current build.

	A	B	C	D	E	F	G
1				ACCOUNT MANAGEMENT			
2	Test Scenario ID	Test Scenario Description	Test Case ID	Test Steps	Expected Result	Actual Result	Status
3	AM-01	Create account with valid inputs	AM-01	Fill all required fields (name, address, NIC, phone, email, initial deposit)	Account created successfully	Account created successfully	Pass
4	AM-02	Create account with missing required fields	AM-02	Leave name and contact info empty and submit	Error message: "Name and contact are required"	Correct error displayed	pass
5	AM-03	Delete an existing account	AM-03	Select an existing account and delete it	Account is deleted and inaccessible	Account deleted and inaccessible	pass
6	AM-04	Update account details	AM-04	Modify email and phone number	Changes saved and reflectedr	Details updated successfully	pass
7				Transaction Management			
8							
9	TM-01	Deposit valid amount	TM-01	Deposit rs.500 into an account	Balance increases by rs.500	Balance updated correctly	pass
10	TM-02	Withdraw amount within balance	TM-02	Withdraw rs.200 from account with rs.500 balance	Balance decreases by rs.200	Balance updated correctly	pass
11	TM-03	Withdraw more than balance	TM-03	Try to withdraw rs.600 from account with rs.500	Error message: "Insufficient fund	Correct error displayed	pass
12				Fund Transfers			
13	FT-01	Valid fund transfer	FT-01	Transfer rs.100 from Account A to B	rs.100 debited from A, credited t	Balances updated correctly	pass
14	FT-02	Transfer to invalid accou	FT-02	Enter wrong recipient account nur	Error message: "Recipient accoun	Correct error displayed	pass
15	FT-03	Transfer with insufficien	FT-03	Try to send rs.1000 with only rs.20	Error message: "Insufficient funds"	Correct error displayed	pass
16				Loan Management			
17	LM-01	Apply for loan with valid	LM-01	Enter loan amount, term, income	Loan application submitted and s	Loan appears in record	pass
18	LM-02	Apply with incomplete d	LM-02	Leave income or term empty	Error message: "All fields are required"	Correct error displayed	pass
19	LM-03	Apply with ineligible acc	LM-03	Use account younger than require	Error message: "Not eligible"	Correct error displayed	pass

Manual Testing Report for Library and Account Management System

1. Introduction

This document outlines the manual testing activities performed for the **Library and Account Management System (LMS + AMS)** as part of a software quality assurance internship project. The objective was to verify that core functionalities of the system perform correctly under various user actions and input conditions.

The system includes modules for **Account Management**, **Library/User Management**, **Transaction Handling**, **Fund Transfers**, and **Book Search & Borrowing**. Testing was carried out manually to ensure proper functionality, usability, and reliability of the system from an end-user perspective.

2. Testing Methodology

The testing approach followed **manual black-box testing** techniques. This involved:

- Creating test cases for each functional module.
- Executing those test cases manually.
- Comparing the **actual result** with the **expected result**.
- Marking the test as **Pass** or **Fail** accordingly.

Each test case included:

- A **Test Scenario** and **Test Case ID** for tracking.
- Detailed **Test Steps** simulating user interactions.
- Clearly defined **Expected Results** based on system requirements.
- Documented **Actual Results** from the system behavior.
- Final **Status** indicating pass/fail.

3. Modules Tested

A. Account Management System (AMS)

This section covers the creation, update, and deletion of user accounts, as well as transaction and fund handling.

- **Account Creation:** Tested both valid and invalid account setups.
- **Account Updates:** Verified updates to phone and email.
- **Account Deletion:** Confirmed that deleted accounts are inaccessible.
- **Transactions:** Verified deposit and withdrawal limits and behaviors.
- **Fund Transfers:** Checked both valid transfers and error messages for invalid or insufficient transfers.

- **Loan Management:** Ensured loan eligibility checks and error handling work as intended.

All AMS test cases passed, indicating stable performance of account-related functionalities.

B. Library Management System (LMS)

This module tested user registration, search, and book borrowing operations.

- **User Registration:** Verified both successful registrations and validations on missing fields.
- **User Profile Updates:** Confirmed contact information is updated in real-time.
- **Book Search:** Tested book search by title and author name with fast response times.
- **Book Borrowing:** Checked proper status updates for borrowed books and error handling when books are already checked out.

All LMS test cases passed, showing that the system handles both typical and edge scenarios effectively.

			Library Management System (LMS)		
	User Management				
Test Scenario	**Test Case**	**Test Steps**	**Expected Result**	**Actual Result**	**Status**
Register with valid inputs	UM-01	Enter valid name, ID, email, and role; submit registration	User account created successfully	User account successfully created; confirmation message shown.	pass
Register without mandatory fields	UM-02	Leave email or ID empty and submit	Error message: "Email and ID are required"	Error displayed: "Email and ID are required"; registration blocked.	pass
Update user contact information	UM-03	Login, navigate to profile, update phone/email	Contact info updated successfully	Contact information updated; changes reflected in user profile immediately.	pass
	Book Search & Borrowing				
Test Scenario	**Test Case**	**Test Steps**	**Expected Result**	**Actual Result**	
Search book by title	BSB-01	Enter book title, submit search	Display list of matching books within 2 seconds	List of books matching the title displayed within 1.5 seconds.	pass
Search book by author	BSB-02	Enter author name, submit search	Display list of matching books within 2 seconds	List of books by the author displayed within 2 seconds.	pass
Borrow an available book	BB-01	Select available book, click borrow	Book status updated to "checked out" for user	Book status changed to "Checked Out"; user borrowing record updated.	pass
Borrow a book already checked out	BB-02	Attempt to borrow a checked out book	Error message: "Book already checked out"	Error message shown: "Book already checked out"; borrowing prevented.	pass