



BANKING SYSTEM - TESTING SUMMARY

This document summarizes test cases executed for verifying the core functionality and robustness of the banking system SQL backend.

It includes both:

-  Functional Tests (expected use cases)
-  Edge Cases (unexpected inputs, rule violations)

SECTION A: FUNCTIONAL TEST CASES

Test ID	Description	Stored Procedure	Expected Outcome
TC01	Create a valid customer	CreateCustomer	New customer created successfully
TC02	Open account for customer	OpenAccount	Account added with ₹0 balance
TC03	Deposit ₹5000 to account	DepositMoney	Balance updated, transaction logged
TC04	Withdraw ₹1000 from account	WithdrawMoney	Balance deducted, transaction logged
TC05	Transfer ₹1500 to another account	TransferMoney	Transfer recorded on both accounts
TC06	View transaction history	ViewTransactionHistory	List of recent transactions returned
TC07	Apply for a personal loan	ApplyForLoan	Loan created with "Pending" status
TC08	Generate monthly statement	GenerateMonthlyStatement	Statement with monthly transactions returned
TC09	Get account insights	GetAccountInsights	Summary of total credits, debits, balance

⚠ SECTION B: EDGE CASE SCENARIOS

Test ID	Description	Stored Procedure	Expected Behavior
EC01	Withdraw more than available balance	WithdrawMoney	Error: Insufficient balance
EC02	Transfer funds to same account	TransferMoney	Error: Cannot transfer to same account
EC03	Deposit into a frozen account	DepositMoney	Error: Account is frozen
EC04	Withdraw from a frozen account	WithdrawMoney	Error: Account is frozen
EC05	Create customer with duplicate email	CreateCustomer	Error: Email already exists
EC06	Withdraw using invalid account ID	WithdrawMoney	Error: Account not found
EC07	Apply for loan with invalid account ID	ApplyForLoan	Error: Invalid customer or account
EC08	Deposit zero or negative amount	DepositMoney	Error: Invalid deposit amount
EC09	Freeze an account that is already frozen	FreezeAccount	Error: Account already frozen or ignored

📌 Notes:

- All tests were executed in SQL Server Management Studio.
- Edge cases were deliberately inserted to validate safety.
- AuditLog captured all valid operations for transparency.