

## Description of the use case diagram for a banking system

Actor: Customer

Use Case 1: Open account

The Customer can initiate the process of opening a new bank account the system collects necessary information verifies it and generates an account.

Use Case 2: Deposit Money

Customers can deposit money into their accounts through various channels such as over the counter transactions, ATM's or Mobile banking.

Use Case 3: Withdraw money

Customers can initiate a withdraw of funds from their accounts through ATMs, over the counter transactions or online banking.

Use Case 4: Transfer funds

Customer can transfer funds between their own accounts or to other accounts with the same bank or to external accounts.

Use Case 5: Check Balance

Customer can check the balance of their accounts through ATMs, Online banking, or by visiting a bank branch.

Actor : Bank teller

Use Case 6: Process Deposit

The bank teller can assist customer in processing deposits over the counter verifying the transaction details and the account balance.

Use Case 7: Process withdrawal

The Bank teller can assist customers in processing withdrawal's over the counter verifying the transaction details and updating the account balance.

Use Case 8: Open account from Customer

The bank teller can assist Customers in opening new accounts by collecting necessary information and completing the account setup process

Actor : System

Use Case 9: Generate monthly statement

The System generates monthly account statements for customers providing a summary of transactions and the current balance.

Use Case 10: Verify Customer Information

The system verifies customer information during account opening ensuring accuracy and compliance with regulating requirements.

Use Case 11: Process fund Transfer

The system process fund transfer initiated by customer updating the respective accounts and ensuring transaction security.



Name of the Experiment : .....

Actor : Manager

Use Case 12: Monitor Transactions.

The manager can monitor and review transactions logs and reports to ensure the security and compliance of the banking system.

Use Case 13: Approve Loan application

The manager has the authority to review and approve or reject loan applications submitted by customers.

Actor : ATM

Use Case 14: Dispense Cash

The ATM dispense cash to customers who request withdrawals updating account balances accordingly.

Use Case 15: Accept deposits

The ATM allows customers to deposit cash or checks updating account balances accordingly.

This use case diagram provides an overview of the interactions between different actors and the banking system capturing the primary functionalities and transactions in a typical banking environment.

## Description of the activity diagram for a banking system:

Activity: Customer account management

Activity 1: Open Account

The Customer initiates the account opening process by providing necessary information. The system verifies the information, generates an account and sends a confirmation to the customer.

Activity 2: Deposit money

The Customer chooses the deposit option and specifies the amount. The system updates the account balance accordingly and generates a deposit confirmation.

Activity 3: Fund transfer

Activity 3: Transfer funds. The customer selects the fund transfer option, specifies source and destination accounts and provides the transfer amount. The system verifies the amount of the accounts and updates the balances of both accounts.

Activity 4: Withdrawal

Activity 4: Withdrawal Money

The Customer requests a withdrawal specifying the amount. The system checks the account balance, processes the withdrawal and updates the account balance accordingly.



Name of the Experiment : .....

Activity: Banking Operations

Activity 5: Monthly Statement Generation

The system periodically generates monthly statements for each customer summarizing transactions and providing the current balance.

Activity 6: Loan Application

The Customer applies for a loan the system reviews the application check eligibility and either approves or rejects the loan. A notification is sent to the customer.

Activity: Bank Teller operations

Activity 7: Over the counter transactions

A bank teller assists customers in processing transactions such as deposits and withdrawals over the counter the teller verifies details updates the account balance and issues relevant receipts.

Activity 8: New Account Setup

The bank teller assists in the account opening process collecting necessary information verifying and completing the account setup.

Activity: ATM transactions

Activity 9: ATM withdrawal

The customer uses an ATM to withdraw cash the system verifies the account and dispense cash while updating the account balance.

### Activity 10: ATM deposit

The Customer deposits money through an ATM the system verifies the deposit and updates the account balance.

### Activity: System maintenance

#### Activity 11: Security checks

The system regularly conducts security checks to ensure the integrity of customer data and protect against unauthorized access.

#### Activity 12: Database maintenance

Routine maintenance tasks are performed on the database to optimize performance and ensure data integrity.

This activity diagram illustrates the flow of activities within a banking system highlighting interactions between customers, the system, bank tellers and ATMs. It provides a comprehensive view of the key processes and operations involved in managing customer accounts and conducting banking transactions.