

COMP 2663 – Software Engineering 1, Fall 2024

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Contributions of each student:

Mantaj -> Discussion Question 1, Use case Diagram

Shivam -> Glossary of Terms

Neer-> Project Story , Use Cases

GROUP NO. 9

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Project Component 1 - Planning Artifacts

This file is to be used as a basic template for creating your planning artifacts. You may add more to this planning document but do not omit any of these basic sections. You should include a title page with your group number for this component. You may complete this in a group of size up to 3.

1. Discussion Questions

- a. What are the best and worst experiences you, or people you know, have had recently which have involved software?

→ **Best Experience:** One of the best recent software experiences I had was Digi locker. Digi Locker is a government-backed digital platform for securely storing and accessing important documents online. It enables users to access verified records like ID cards and certificates, reducing the need for physical copies.

My Father used to carry all the documents with him but now he has just one app. It is so manageable for him now.

Worst Experience: A recent negative experience involved video conferencing software that often had audio and video sync issues, leading to disruptions during crucial meetings. This greatly affected the overall quality and effectiveness of communication.

b. Describe the basic Functional Requirements for your project.

- 64-bit Laptop / PC
- Strong and secure network
- User-credentials
- An existing Bank Account

2. Project Story / Concept

a. **High level description of the project story / background / conception**

→ The Bank Management System is designed to modernize and streamline the customer banking experience. The project is conceived as a comprehensive banking interface allowing users to conduct transactions securely and efficiently through an ATM. This system is developed in response to the increasing need for reliable, fast, and secure access to banking services outside of traditional bank hours.

b. **Project Title**

→ Acadian-Bank Manager: A Real-time Banking System

c. **Target Users**

→ The primary users of the Acadian-Bank Manager are bank customers who need quick, secure access to their accounts for routine transactions. The Best thing about this app is that it can be used by all age groups, and it is also easy to use with simple interface so even a non tech guy use it.

d. Main Features

- It does bank transactions including money withdrawals, deposits, and transfers.
- It allows customers to check their account balances to ensure up-to-date transaction details.
- Provides a detailed view of past transactions for user accounts, aiding in financial tracking and planning.

e. Success Scenarios

A user mistakenly enters a wrong PIN; the system promptly offers a chance to correct it without compromising the security.

During peak hours, the system effectively manages multiple user requests without system crashes.

3. Use Cases

a. Brief use case(s)

Withdraw Money Example

A Customer arrives at the ATM at 2 am in the night as he is in an emergency, and he needs cash from his bank account very urgently. The ATM uses the Bank Management System to help him withdraw money. The ATM asks for his card to be inserted. Then

he enters his PIN and the amount he wants to withdraw from his account, which the system validates and records. The system updates the bank balance, and the customer receives a receipt with the details, and he gets the cash out from the ATM machine.

b. Casual use case(s)

A Customer arrives at the ATM at 2 am in the night as he is in an emergency, and he needs cash from his bank account very urgently. The ATM uses the Bank Management System to help him withdraw money. The ATM asks for his card to be inserted. Then

he enters his PIN and the amount he wants to withdraw from his account, which the system validates and records. The system updates the bank balance, and the customer receives a receipt with the details, and he gets the cash out from the ATM machine.

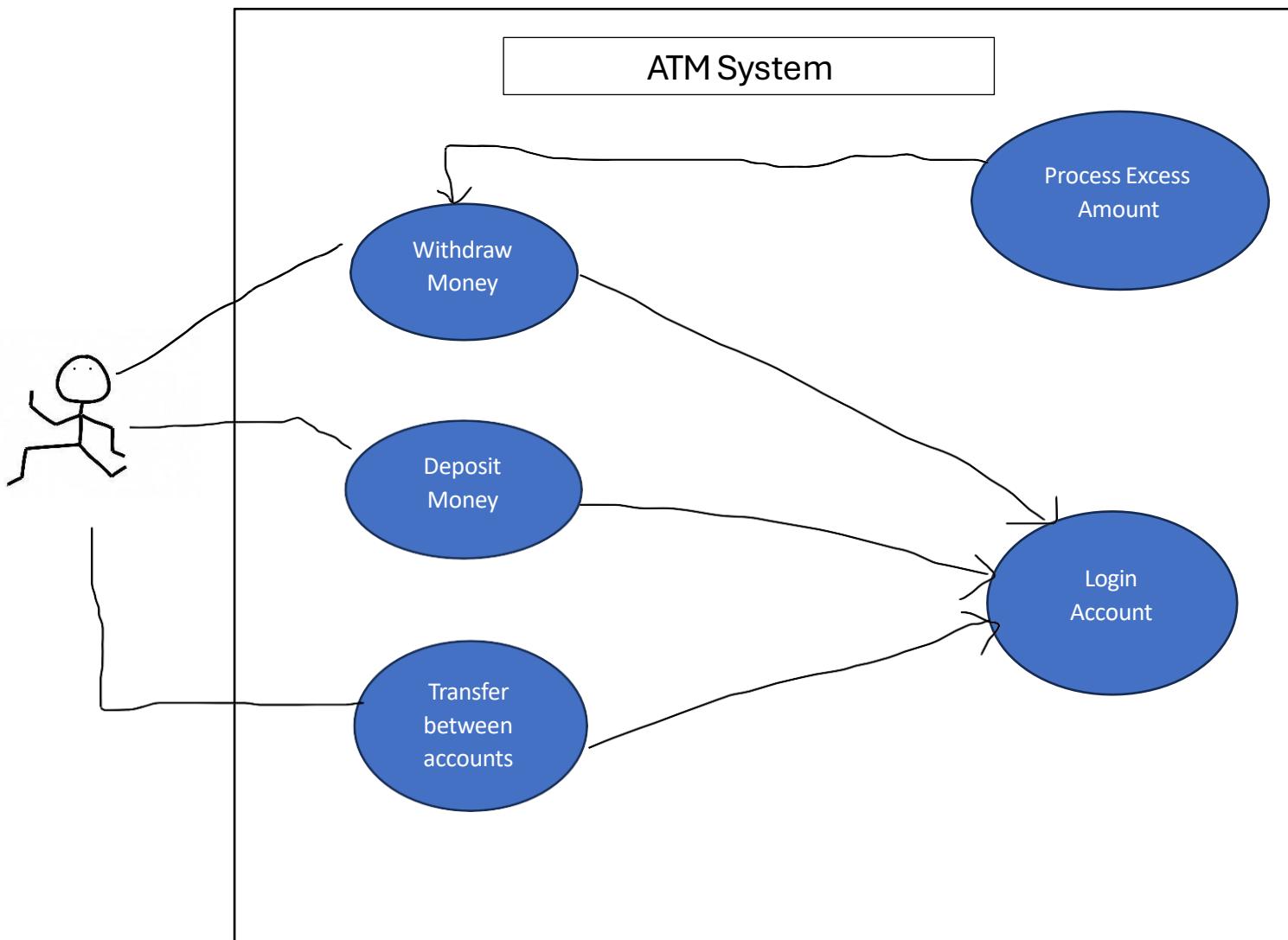
c. Formal use case(s)

Transfer Money Example

A customer uses the ATM to transfer money between accounts. They insert their card, enter their PIN, and select the “Transfer Money” option. After choosing the source and destination accounts and entering the amount, the system verifies the balance, processes the transfer, and prints a confirmation receipt.

4. Use Case Diagrams

a. Basic use case diagram



5. Glossary of Terms

Customer: An individual or entity that holds an account with the bank and interacts with the bank's services.

Bank Management System: The software system that manages various banking operations, including customer accounts, transactions, and ATM interactions.

ATM (Automated Teller Machine): A self-service machine that allows customers to perform banking transactions, such as withdrawals and balance inquiries, without the need for human intervention.

Bank Card: A plastic card issued by the bank to customers, allowing them to access their bank accounts through ATMs and make electronic transactions.

PIN (Personal Identification Number): A secret numeric code used by customers to authenticate themselves and access their accounts through ATMs and other banking channels.

Account Balance: The amount of money available in a customer's bank account, which can be used for withdrawals, transfers, or other financial transactions.

Transaction: Any financial activity or operation carried out by a customer, such as withdrawals, deposits, transfers, or balance inquiries.

Receipt: A printed document issued by the ATM or bank, providing details of a transaction, including the date, time, transaction type, amount, and account balance.

Bank Database: A centralized repository that stores customer account information, transaction records, and other banking data used by the Bank Management System.

Emergency: A critical or urgent circumstance in which a customer requires immediate access to their funds, often outside of regular banking hours.

Encryption: The process of converting data into a coded format to protect it from unauthorized access or data breaches during communication between the ATM and the Bank Management System.

Data Security: Measures and protocols implemented to safeguard customer information and financial data from unauthorized access, theft, or tampering.

Technical Issues: Unexpected problems or malfunctions that may occur in the ATM or Bank Management System, leading to disruptions in service or transaction failures.

Customer Support: The bank's dedicated service to assist customers in resolving issues, answering inquiries, and helping with banking-related matters.

Cash Reserves: The physical currency or funds maintained within an ATM to fulfil customer withdrawal requests.