UML Sequence Diagram for ATM Machine

System Description

An automated teller machine (ATM) is a self-service banking machine that allows customers to perform basic banking transactions without the need for a human teller. ATM machines are typically located in banks, shopping malls, and other public places.

Sequence Diagram

The following sequence diagram shows a typical ATM withdrawal transaction:

Actor: Customer

ATM: Automated Teller Machine

Bank Database: Bank's database of customer accounts

- 1. Customer inserts card into ATM
- 2. ATM reads card information and verifies with bank database
- 3. ATM prompts customer to enter PIN
- 4. Customer enters PIN
- 5. ATM verifies PIN with bank database
- 6. Customer enters amount
- 7. ATM verifies that customer has sufficient funds in account
- 8. ATM dispenses cash
- 9. Customer takes cash
- 10. ATM returns card

Operating Process

To use an ATM machine, customers typically follow these steps:

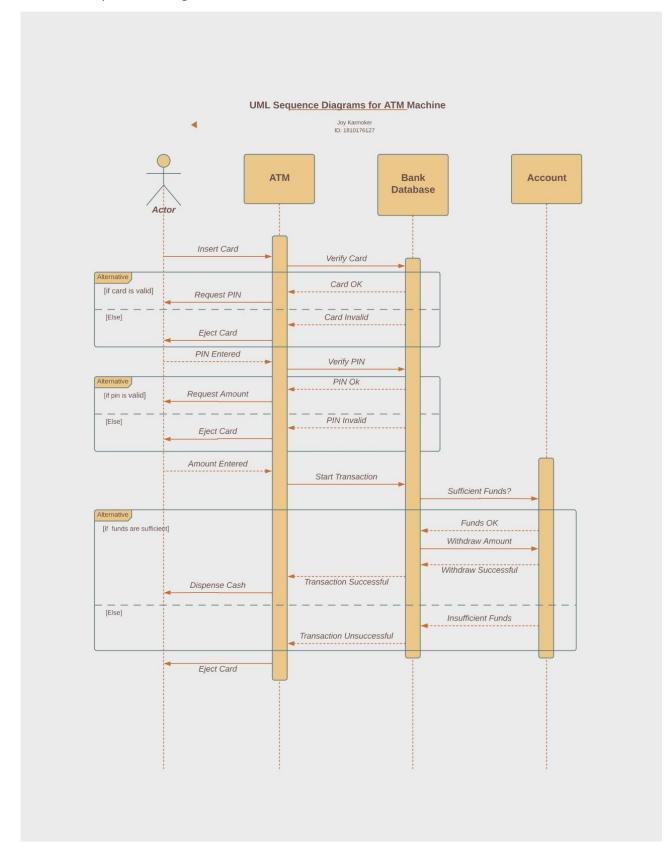
- 1. Insert their bank card into the ATM.
- 2. Enter their PIN when prompted.
- 3. Select the transaction type they want to perform (e.g., withdrawal, deposit, balance inquiry).
- 4. Follow the instructions on the ATM screen to complete the transaction.
- 5. Take their card and cash (if applicable).

Technical Report

• Introduction

An automated teller machine (ATM) is a self-service banking machine that allows customers to perform basic banking transactions without the need for a human teller. ATM machines are typically located in banks, shopping malls, and other public places.

• UML Sequence Diagram



The above sequence diagram shows a typical ATM withdrawal transaction. The customer inserts their card into the ATM, enters their PIN, selects the withdrawal transaction type, and enters the amount they want to withdraw. The ATM then verifies that the customer has sufficient funds in their account and dispenses the cash.

Operating Process

- To use an ATM machine, customers typically follow these steps:
- Insert their bank card into the ATM.
- Enter their PIN when prompted.
- Select the transaction type they want to perform (e.g., withdrawal, deposit, balance inquiry).
- Follow the instructions on the ATM screen to complete the transaction.
- Take their card and cash (if applicable).

Conclusion

ATM machines are a convenient and efficient way for customers to perform basic banking transactions. They are also relatively secure, as they use a variety of security measures to protect customer data.

Additional Remarks

In addition to the withdrawal transaction shown in the sequence diagram above, ATM machines can also be used to perform other transactions such as deposits, balance inquiries, and fund transfers. Some ATM machines also offer additional features such as bill payment and check cashing. ATM machines are an important part of the modern banking system. They provide customers with a convenient way to access their bank accounts and perform basic banking transactions 24/7.