**Use case name:**

**Description:** This use case describes how a customer can withdraw money from an ATM and also withdraw/deposit cash using Automated deposit cum Withdrawal Machine (ADWM).

**Actors:**

1. Any bank customer
2. ATM machine
3. Automated deposit cum Withdrawal Machine (ADWM)

**Tigger:**

**Pre-Conditions:**

* ATM/ADWM should be operational.
* The bank customer should have a card to insert into the machine.
* The system must have at least some cash that can be dispensed in case of withdrawal by the customer.
* The network connection to the Bank System must be active.

**Flow:**

In case of withdrawal of cash from ATM machine:

**Basic flow:**

1. The customer enters their card into the ATM.
2. The ATM verifies that the card is a valid bank card.
3. The ATM requests a 4-digit PIN code.
4. The customer enters their PIN code.
5. The ATM validates the bank card against the PIN code.
6. The ATM presents service options including “Withdraw”.
7. The customer chooses “Withdraw”.
8. The ATM presents options for amounts.
9. The customer selects an amount or enters an amount.
10. The ATM verifies that it has enough cash in its hopper.
11. The ATM verifies that the customer is below withdraw limits.
12. The ATM verifies sufficient funds in the customer’s bank account.
13. The ATM debits the customer’s bank account.
14. The ATM returns the customer’s bank card.
15. The customer takes their bank card.
16. The ATM issues the customer’s cash.
17. The customer takes their cash

**Alternate flow:**

2a Invalid card

1. The ATM indicates that it is the wrong type of card.
2. The ATM asks the customer to insert another card.
3. Rejoin the basic flow at step 2.

2b Card upside down

1. The ATM indicates that the card is upside down.
2. The ATM asks the customer to insert the card again.
3. Rejoin the basic flow at step 2.

5a PIN invalid

1. The ATM indicates that the wrong PIN has be entered.
2. If permitted number of tries is not exceeded, the ATM asks the customer to enter their PIN again and rejoins the basic flow at step 4.
3. If permitted number of tries is exceeded, the ATM retains the card and ends the use case.

10a Insufficient cash in the hopper

1. The ATM explains the limit on cash.
2. The ATM asks the customer to enter a smaller amount.
3. Rejoin the basic flow at step 9.

10b Wrong denomination of cash in the hopper

1. The ATM explains the restriction on denomination.
2. The ATM asks the customer to enter a different amount.
3. Rejoin the basic flow at step 9.

11a Withdrawal above withdraw limits

1. The ATM explains the withdrawal limit.
2. The ATM asks the customer to enter a smaller amount.
3. Rejoin the basic flow at step 9.

12a Insufficient funds in customer’s bank account

1. The ATM explains the restriction on funds in bank account.
2. The ATM asks the customer to enter a smaller amount.
3. Rejoin the basic flow at step 9.

14a Bank card stuck in machine

1. The ATM explains the machine malfunction.
2. The ATM asks the customer to speak to bank staff.
3. End use case.

15a Customer fails to take their bank card

1. The ATM prompts the customer to take their card.
2. The ATM waits for a period of time.
3. If card is not removed, the ATM retains the card.
4. End use case

16a Cash stuck in machine

1. The ATM explains the machine malfunction.
2. The ATM asks the customer to speak to bank staff.
3. End use case

17a Customer fails to take their cash

1. The ATM prompts the customer to take their cash.
2. The ATM waits for a period of time.
3. If cash is not removed, the ATM retains the cash.
4. End use case

**Exceptional flow:**