

Use Case Specifications

Example 2: ATM Machine

Use Case Description: Allows any bank customer to obtain cash from their bank account. This use case begins when an ATM customer chooses a type of account from which the cash is to be withdrawn (e.g. checking) from a list of possible accounts, and to choose a dollar amount from a list of possible amounts. The system sends the transaction to the financial system for verification. If the financial system approves the transaction, the machine dispenses the appropriate amount of cash and issues a receipt. The dispensing of cash is also recorded in the ATM's log.

Use Case Name: Withdraw Cash

Actors:

- Any Bank Customer (Has an existing account)
- Banking System (Any bank's ATM and its infrastructure)

Triggers:

- The user wants to withdraw money from one of his/her account.

Preconditions:

- The ATM is operational.
- The bank customer has a card to insert into the ATM.

Post conditions:

- The bank customer has received their cash (and optionally a receipt).
- The bank has debited the customer's bank account and recorded details of the transaction.

Normal Flow:

1. The customer enters the bankcard into the ATM.
2. The ATM verifies that the card is a valid bankcard.
3. The ATM requests a PIN code.
4. The customer enters the PIN code.
5. The ATM validates the bankcard against the PIN code.
6. The ATM presents service options including "Withdraw".
7. The customer chooses "Withdraw".
8. The ATM verifies sufficient funds in the customer's bank account.
9. The ATM presents options for amounts.
10. The customer enters an amount.
11. The ATM verifies that the customer is below withdrawing limits.
12. The ATM verifies that it has enough cash in its hopper.
13. The ATM debits the customer's bank account.
14. The ATM returns the customer's bankcard.
15. The customer takes the bankcard.
16. The ATM issues the customer's cash.
17. The customer takes the cash.
18. Use case ends.

Use Case Specifications

Alternate Flows *(Try to fill out the alternate flows below):*

2A1: *Invalid bankcard*

5A1: *Invalid PIN*

8A1: *Insufficient funds in the customer's bank account*

11A1: *Exceeding daily withdrawal limits*

12A1: *Hopper does not have enough cash*

12A2: *Wrong denomination of cash*

14A1: *Bankcard stuck in machine*

15A1: *Customer forgets to take the bankcard*

16A1: *Cash stuck in machine*

17A1: *Customer fails to take their cash*