

Use Case ID:1

Use Case Name:Withdraw Cash from an ATM

Primary Actor: Customer

Stakeholders and Interests:

- Customer: The primary actor who wants to access and withdraw cash from their bank account conveniently.
- Bank: Interested in providing secure and efficient cash withdrawal services to customers.
- ATM Service Provider: Responsible for maintaining and servicing the ATM machines.
- Regulatory Authorities: Interested in ensuring that ATM transactions comply with financial regulations and are secure.

Preconditions:

- The customer possesses a valid and active bank account with an associated ATM card.
- The ATM machine is operational and connected to the bank's network.
- Sufficient funds are available in the customer's bank account.

Main Success Scenario:

1. The customer approaches the ATM machine.
2. The customer inserts their ATM card into the card reader.
3. The ATM prompts the customer to enter their Personal Identification Number (PIN).
4. The customer enters the correct PIN.
5. The ATM validates the PIN and displays a menu of transaction options, including cash withdrawal.
6. The customer selects the "Withdraw Cash" option.
7. The ATM prompts the customer to enter the desired withdrawal amount.
8. The customer enters the amount.
9. The ATM validates the withdrawal amount and checks the customer's account balance.
10. If the account balance is sufficient for the requested withdrawal, the ATM dispenses the requested amount in cash. If not, an error message is displayed.
11. The ATM issues a receipt with details of the transaction, including the withdrawal amount, account balance, and a transaction ID.
12. The customer retrieves the cash and the receipt.
13. The customer removes their ATM card.
14. The ATM returns to the main menu.

Postconditions:

- The customer has withdrawn the requested amount of cash.
- The ATM has issued a receipt for the transaction.
- The customer's account balance is updated to reflect the withdrawal.

#### Alternative Scenarios:

1. If the customer enters an incorrect PIN three times, the ATM retains the card, and the customer must contact the bank for card retrieval and reactivation.
2. If there is a network or connectivity issue, the ATM displays an error message, and the transaction cannot proceed.
3. If the customer's account balance is insufficient for the requested withdrawal, the ATM displays an error message and does not dispense cash.

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Use Case ID:1

Use Case Name: Heat Food Using a Microwave Oven

Primary Actor: User

Stakeholders and Interests:

- User: Interested in quickly and effectively heating food in a microwave oven.
- Food Safety Authorities: Interested in ensuring that food is heated safely to prevent health risks.
- Microwave Oven Manufacturers: Concerned with providing reliable and user-friendly microwave ovens.
- Appliance Repair Services: Involved in maintaining and repairing microwave ovens.

Preconditions:

- The microwave oven is plugged in and operational.
- The user has placed food in a microwave-safe container.

Main Success Scenario:

1. The user opens the microwave oven door.
2. The user places the food in the microwave and closes the door securely.
3. The user sets the desired heating time and power level using the microwave oven's control panel.
4. The user starts the microwave oven.
5. The microwave oven emits microwaves to heat the food based on the user's settings.
6. Once the timer reaches zero, the microwave oven beeps to signal that heating is complete.
7. The user opens the microwave oven door, removes the heated food, and closes the door.

Postconditions:

- The user has successfully heated their food to the desired temperature.

- The microwave oven is ready for future use.

#### Alternative Scenarios:

1. If the user sets an incorrect heating time or power level, the food may be undercooked or overcooked. The user may need to reheat the food if necessary.
2. If there is a malfunction in the microwave oven, such as a blown fuse or a defective component, the heating process may be disrupted, and the microwave oven may need to be repaired.
3. In the case of food safety concerns, the user should ensure that the food is heated to a safe temperature to prevent foodborne illnesses.