

Algorithm:

1. Start
2. Authenticate User
 - Prompt user to enter PIN
 - Validate the PIN
 - If incorrect, allow retries or exit
3. Display Menu Options:
 - 1: Check Balance
 - 2: Deposit Money
 - 3: Withdraw Money
 - 4: Exit
4. Process User Selection:
 - If 1, display balance
 - If 2, prompt user to enter deposit amount, update balance
 - If 3, prompt withdrawal amount, validate against balance
 - If sufficient funds, deduct and display success message
 - Else, display error message
 - If 4, exit system
5. Repeat Menu Until Exit
6. End

PSEUDOCODE:

START

SET balance = 100000 (example)

INPUT user_PIN

IF user_PIN is incorrect THEN

PRINT "Invalid PIN. Try again."

REPEAT 3 times

EXIT IF incorrect after 3 attempts

END IF

WHILE TRUE DO

PRINT "1: Check Balance"

PRINT "2: Deposit Money"

PRINT "3: Withdraw Money"

PRINT "4: Exit"

INPUT choice

IF choice = 1 THEN

PRINT "Your balance is:", balance

ELSE IF choice = 2 THEN

INPUT deposit_amount

balance = balance + deposit_amount

PRINT "Deposit successful. New balance:", balance

ELSE IF choice = 3 THEN

INPUT withdraw_amount

IF withdraw_amount <= balance THEN

balance = balance - withdraw_amount

PRINT "Withdrawal successful. New balance:", balance

ELSE

PRINT "Insufficient funds."

END IF

ELSE IF choice = 4 THEN

PRINT "Thank you for using ATM. Goodbye!"

EXIT

ELSE

PRINT "Invalid choice. Try again."

END IF

END WHILE

END

FLOWCHART:

