

```
In [1]: class ATM:
    def __init__(self, balance=0, pin=1234):
        self.balance = balance
        self.pin = pin
        self.transaction_history = []

    def check_balance(self, pin):
        if pin == self.pin:
            print(f"Your current balance is: {self.balance}")
        else:
            print("Invalid PIN")

    def withdraw_cash(self, amount, pin):
        if pin == self.pin:
            if amount <= self.balance:
                self.balance -= amount
                self.transaction_history.append(f"Withdrawal: -{amount}")
                print(f"Withdrawal successful. New balance: {self.balance}")
            else:
                print("Insufficient funds")
        else:
            print("Invalid PIN")

    def deposit_cash(self, amount, pin):
        if pin == self.pin:
            if amount > 0:
                self.balance += amount
                self.transaction_history.append(f"Deposit: +{amount}")
                print(f"Deposit successful. New balance: {self.balance}")
            else:
                print("Amount must be greater than zero")
        else:
            print("Invalid PIN")

    def change_pin(self, old_pin, new_pin):
        if old_pin == self.pin:
            if 1000 <= new_pin <= 9999: # Simple PIN validation
                self.pin = new_pin
                print("PIN changed successfully")
            else:
                print("New PIN must be a 4-digit number")
        else:
            print("Invalid old PIN")

    def show_transaction_history(self):
        if self.transaction_history:
            print("Transaction History:")
            for transaction in self.transaction_history:
                print(transaction)
        else:
            print("No transactions yet")
```

```
In [ ]: if __name__ == "__main__":
        atm = ATM(balance=1000)

        while True:
            print("\n1. Check Balance")
            print("2. Withdraw Cash")
            print("3. Deposit Cash")
            print("4. Change PIN")
            print("5. Transaction History")
            print("6. Exit")
            choice = input("Choose an option: ")

            if choice == "1":
                pin = int(input("Enter PIN: "))
                atm.check_balance(pin)
            elif choice == "2":
                amount = int(input("Enter amount: "))
                pin = int(input("Enter PIN: "))
                atm.withdraw_cash(amount, pin)
            elif choice == "3":
                amount = int(input("Enter amount: "))
                pin = int(input("Enter PIN: "))
                atm.deposit_cash(amount, pin)
            elif choice == "4":
                old_pin = int(input("Enter old PIN: "))
                new_pin = int(input("Enter new PIN (4-digit number): "))
                atm.change_pin(old_pin, new_pin)
            elif choice == "5":
                atm.show_transaction_history()
            elif choice == "6":
                print("Exiting. Have a nice day!")
                break
            else:
                print("Invalid choice")
```

1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. Change PIN
5. Transaction History
6. Exit

Choose an option: 1

Enter PIN: 123

Invalid PIN

1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. Change PIN
5. Transaction History
6. Exit

Choose an option: 1

Enter PIN: 1234

Your current balance is: 1000

1. Check Balance
2. Withdraw Cash
3. Deposit Cash
4. Change PIN
5. Transaction History
6. Exit

In []: