

In [2]:

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class ATM:
    def __init__(self, initial_balance=0):
        self.balance = initial_balance
        self.pin = "2004"
        self.transaction_history = []

    def check_pin(self):
        pin = input("Enter your PIN: ")
        if pin == self.pin:
            return True
        else:
            print("Invalid PIN!")
            return False

    def balance_inquiry(self):
        if self.check_pin():
            print(f"Your current balance is: ₹{self.balance}")
            self.transaction_history.append("Balance inquiry")

    def cash_withdrawal(self):
        if self.check_pin():
            amount = float(input("Enter amount to withdraw: ₹"))
            if amount <= self.balance:
                self.balance -= amount
                print(f"Withdrew ₹{amount}. New balance is ₹{self.balance}.")
                self.transaction_history.append(f"Withdraw: ₹{amount}")
            else:
                print("Insufficient balance!")

    def cash_deposit(self):
        if self.check_pin():
            amount = float(input("Enter amount to deposit: ₹"))
            self.balance += amount
            print(f"Deposited ₹{amount}. New balance is ₹{self.balance}.")
            self.transaction_history.append(f"Deposit: ₹{amount}")

    def change_pin(self):
        if self.check_pin():
            new_pin = input("Enter new PIN: ")
            self.pin = new_pin
            print("PIN successfully changed.")
            self.transaction_history.append("PIN change")

    def view_transaction_history(self):
        if self.check_pin():
            print("Transaction History:")
            for transaction in self.transaction_history:
                print(transaction)

    def menu(self):
        while True:
            print("\nATM Menu:")
            print("1. Balance Inquiry")
            print("2. Cash Withdrawal")
            print("3. Cash Deposit")
            print("4. Change PIN")
            print("5. Transaction History")
            print("6. Exit")
            choice = input("Choose an option: ")

            if choice == "1":
                self.balance_inquiry()
            elif choice == "2":
                self.cash_withdrawal()
            elif choice == "3":
                self.cash_deposit()
            elif choice == "4":
                self.change_pin()
            elif choice == "5":
                self.view_transaction_history()
            elif choice == "6":
                print("Thank you for using the ATM. Kindly Remove take out your card!! Goodbye!")
                break
            else:
                print("Invalid choice! Please try again.")

if __name__ == "__main__":
    atm = ATM(10000)
    atm.menu()
```

ATM Menu:
1. Balance Inquiry
2. Cash Withdrawal
3. Cash Deposit
4. Change PIN
5. Transaction History
6. Exit
Choose an option: 2
Enter your PIN: 1200
Invalid PIN!

ATM Menu:
1. Balance Inquiry
2. Cash Withdrawal
3. Cash Deposit
4. Change PIN
5. Transaction History
6. Exit
Choose an option: 2
Enter your PIN: 2004
Enter amount to withdraw: ₹100
Withdrew ₹100.0. New balance is ₹9900.0.

ATM Menu:
1. Balance Inquiry
2. Cash Withdrawal
3. Cash Deposit
4. Change PIN
5. Transaction History
6. Exit
Choose an option: 6
Thank you for using the ATM. Kindly Remove take out your card!! Goodbye!

In []: