

ATM Problem Statement

An Automated Teller Machine (ATM) is a machine that offers service to users who either hold a bank account (as in Nations Bank Account Holders) or hold a credit card account (as in MBNA). Users of the ATM can access the ATM by inserting an ATM card and a 6 digit pin. The user can withdraw or deposit money or check the status of their accounts. The ATM gathers account information from a remote bank-supplied database. When a withdrawal or deposit is requested, the ATM amends this database to reflect the transaction. The ATM has a user interface contains an alpha-numeric keyboard and a 19" black and white monitor. The entire machine is about 6 feet high. The ATM can only service one user at a time.

Example Scenarios:

Withdraw funds of \$20

1. User approaches ATM machine
2. ATM Display shows that the user should insert the ATM Card
3. User inserts his/her ATM Card
4. ATM Machine reads the card
5. ATM Display shows "What Language"
6. User enters "English"
7. ATM Display shows ("Enter Pin Number")
- 7.1 ATM connects to the Bank Database
- 7.2 ATM validates the pin number
8. ATM Display shows (Deposit, Withdraw, or Check Balance)
9. User presses ATM button to Withdraw
10. ATM Display shows ("\$20" or "\$100")
11. User presses \$20
12. ATM dispenses \$20
13. ATM Display shows "Do you want a receipt, Yes or No"
14. User enters "Yes"
15. ATM dispenses receipt
16. ATM returns shows that user should insert the ATM

Actor 2

Main Use Case

Actor 1

Actor 4

Use Cases

Use Case

Use Case

Scenarios 40pt

- 10 for loops
- 10 not using actor
- 8 list number

Use Case 60pt

- 10 ATM as actor
- 10 Class as use case
- 10 Sequence
- 2 missing actors
- 5 missing finally
- 5 sequence not associated
- 3 include/extend problem
- 3 misuse of association

