Case Study(2): ATM

Name: Bobba Ruthvik
Roll number: CS19B007

Description:
- An ATM using account number instead of card having 4 features:
    a. Withdraw
    b. Balance enquiry
    c. Transfer
    d. Pin Generation
- Bank has 4 customers initially and can be expanded by the Manager.
- A 4 digit pin similar to an ATM pin.
- Limit of Rs. 2,00,000 per run time (set by bank) and individual transaction limit of Rs. 40,000.

Additional Features:
- Password("abc123")(5 trial) protected system for the Manager.
- File Handling to store customer data in system in form of a file.
- Made sure the Main code contains exactly 2 lines of code to hide all other data.

Test Cases:

1. Customer (banking, balance inq, pin generation)
Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 12345

Hello BILLY STUMPS
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
1

ENTER ANY NUMBER BETWEEN 10 AND 99
For eg. "25"
12
IS THE NUMBER DISPLAYED ON THE SCREEN ?
1. YES
2. NO
1
ABC Bank
Please enter your PIN: 5432
ABC Bank
1. FROM CURRENT
2. FROM SAVING
2
Please enter amount: 1234
1. YES
2. NO
1
Remaining balance:
48766.0
TRANSACTION COMPLETE.

Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 67890

Hello BOOM McCONDOR
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
2
ENTER ANY NUMBER BETWEEN 10 AND 99
For eg. "25"
12
IS THE NUMBER DISPLAYED ON THE SCREEN ?
1. YES
2. NO
1
ABC Bank
Please enter your PIN: 1023
ABC Bank

1. CREDIT
2. SAVINGS
2
AVAILABLE BALANCE: 40000.0
Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 11111

Hello BOBBA RUTHVIK
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
3
ENTER ANY NUMBER BETWEEN 10 AND 99
For eg. "25"
12
IS THE NUMBER DISPLAYED ON THE SCREEN ?
1. YES
2. NO
1
ABC Bank
Please enter your PIN: 2222
ABC Bank
1. CREDIT
2. SAVINGS
1
ENTER ACCOUNT NUMBER TO TRANSFER
12345
RE-ENTER ACCOUNT NUMBER TO TRANSFER
12345
RECEIVER MUST HAVE SAME ACCOUNT TYPE

Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 67890

Hello BOOM McCONDOR

PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
4
ENTER ACCOUNT NUMBER: 67890
Dear Customer, Would you like to change your PIN? PIN shall be delivered to your registered mobile number.
1. CONFIRM
2. CANCEL
1
Enter new PIN: 1212
Re-enter new PIN: 1212

PIN generation is successful
You will receive you PIN shortly through registered mobile number.

/**** MOBILE INTERFACE ****/
ABC Banks PIN Changed to 1212 for Account Number 67890.

Enter 1 if you are a customer, 2 for manager system any other to exit
5

Process finished with exit code 0

2. Customer(transfer)
Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 12345

Hello BILLY STUMPS
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
3
ENTER ANY NUMBER BETWEEN 10 AND 99
For eg. "25"
12
IS THE NUMBER DISPLAYED ON THE SCREEN ?

1. YES
2. NO
1
ABC Bank
Please enter your PIN: 5432
ABC Bank
1. CREDIT
2. SAVINGS
2
ENTER ACCOUNT NUMBER TO TRANSFER
67890
RE-ENTER ACCOUNT NUMBER TO TRANSFER
67890
ENTER AMOUNT TO TRANSFER: 123
TRANSFER SUCCESSFUL
Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 12345

Hello BILLY STUMPS
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
2
ENTER ANY NUMBER BETWEEN 10 AND 99
For eg. "25"
12
IS THE NUMBER DISPLAYED ON THE SCREEN ?
1. YES
2. NO
1
ABC Bank
Please enter your PIN: 5432
ABC Bank
1. CREDIT
2. SAVINGS
2
AVAILABLE BALANCE: 49877.0
Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 67890

Hello BOOM McCONDOR
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
2
ENTER ANY NUMBER BETWEEN 10 AND 99
For eg. "25"
12
IS THE NUMBER DISPLAYED ON THE SCREEN ?
1. YES
2. NO
1
ABC Bank
Please enter your PIN: 1023
ABC Bank
1. CREDIT
2. SAVINGS
2
AVAILABLE BALANCE: 40123.0
Enter 1 if you are a customer, 2 for manager system any other to exit
5

Process finished with exit code 0

3. Manager

Enter 1 if you are a customer, 2 for manager system any other to exit
2
/**** MANAGER'S COMPUTER ****/
Username: ABC Bank Manager
Password: abc123
Enter 1 to add accounts and 2 to get customer details.
1
Enter customer's full name: BOBBA YAGNIK
Enter customer's account number: 77777
Enter account type:
1. Current
2. Savings

1
Enter balance: 12312
Enter 1 if you are a customer, 2 for manager system any other to exit
1

Welcome to ABC ATM services
Please enter your account number: 77777

Hello BOBBA YAGNIK
PLEASE CHOOSE "BANKING" FOR CASH "WITHDRAWALS"
1. BANKING
2. BALANCE INQ
3. TRANSFER
4. PIN GENERATION
4
ENTER ACCOUNT NUMBER: 77777
Dear Customer, ABC Bank appreciates, you for the Green Initiative. PIN shall be delivered to your registered mobile number.
1. CONFIRM
2. CANCEL
1

PIN generation is successful
You will receive you PIN shortly through registered mobile number.

Please change your PIN without which you will not be allowed to do any transaction.

/**** MOBILE INTERFACE ****/
ABC Banks PIN Changed to 6145 for Account Number 77777.

Enter 1 if you are a customer, 2 for manager system any other to exit
2
/**** MANAGER'S COMPUTER ****/
Username: ABC Bank Manager
Password: abc123
Enter 1 to add accounts and 2 to get customer details.
2

Saved in file named CustomerData.txt

Enter 1 if you are a customer, 2 for manager system any other to exit
6

Process finished with exit code 0

CustomerData.txt - Notepad

File Edit Format View Help

```
S.no. Customer name      Account  number   Account type    Balance
1     BILLY STUMPS       12345             Savings         50000.0
2     BOOM McCONDOR       67890              Savings          40000.0
3     BOBBA RUTHVIK       11111              Current          80000.0
4     ROCK CALLAHAN       10001              Savings          60000.0
5     BOBBA YAGNIK       77777             Current         12312.0
```

Ln 1, Col 1   100%   Unix (LF)   UTF-8