

Consider a local bank that has includes the following clients:

ID	Data	
215321701332	Name	Ahmed Abdelrazek Mohamed
	Password	1783
	Balance	3500166
203659302214	Name	Salma Mohamed Foaad
	Password	1390
	Balance	520001
126355700193	Name	Adel Khaled Abdelrahman
	Password	1214
	Balance	111000
201455998011	Name	Saeed Amin Elsayy
	Password	2001
	Balance	1200
201122369851	Name	Amir Salama Elgendy
	Password	8935
	Balance	178933
201356788002	Name	Wael Mohamed khairy
	Password	3420
	Balance	55000
203366789564	Name	Mina Sameh Bishoy
	Password	1179
	Balance	18000
201236787812	Name	Omnia Ahmed Awad
	Password	1430
	Balance	180350

You are required to design an ATM software with GUI that do the following:

- 1- The system first asks the user to enter his account number then click Enter
- 2- If the account number is not identified by the system, the system would show an error message then reset
- 3- After the user enter the correct account number, the system would ask the user to enter the password. The user would have **three** trials to enter his password. Each time the password in incorrect, the system would ask the user to reenter the password showing to him a message that the password is incorrect.
- 4- If the password is entered incorrect for 3 **successive** times, the system would lock the account forever. And the user would be able to enter his account. If the user tried to enter a locked account, the system would show a message that this account is locked, please go to the branch.

**Note**, the password shall be shown as stars (\*)

- 5- If the user entered a valid password, the system will give him the following options:
  - Cash Withdraw
  - Password Change
  - Exit
  - Balance Inquiry
  - Fawry Service

### **Cash Withdraw**

- 1- When the user choose the cash withdraw system, the system would ask the user to enter the desired amount to withdraw, if the balance covers this amount of balance, the system would call the function “ATM\_Actuator\_Out” which will provide the money to the client from the ATM outlet. This function takes the amount of money to be provided.

**Note: Implement this function as an empty function, we would come back to it in the course in the HW part.**

- 2- After the withdraw operation, the system shall print a thank you message and return to the home page.
- 3- Maximum allowed value per transaction is 5000 L.E
- 4- The allowed values are multiple of 100L.E, otherwise the system shall print not allowed value and ask the user to reenter the value
- 5- If the balance can not cover the withdraw value, the system shall print a message to the user telling him no sufficient balance then the system shall go to the home window.

### **Balance Inquiry**

When the user chooses this option, the system shall print the user balance as well as the user full name. The system would show a button with the text Ok when pressed, the system shall go to the home page.

### **Password Change**

When the user chooses this option, the system shall ask the user to enter the new password twice. The system shall accept only a password with a length four. The two passwords shall be matched in order to save. Otherwise the system would ask the user to repeat the operation.

### **Fawry Service**

The system provides 4 Fawry services which are:

- 1- Orange Recharge
- 2- Etisalat Recharge
- 3- Vodafone Recharge
- 4- We Recharge.

After the user chooses an option, the system would ask the user to enter the phone number and the amount of recharge. If the user balance would cover this operation, it would be done (Consider nothing to do for now) and the balance would be updated. If not, the system would print no sufficient balance then go to the home page.

***Best Wishes***

***Ahmed Assaf***