**Program manual: Bank information system**

This is the program manual about bank information system. This program is able to provide functionality for different users which contains Manager, Bank clerk and Customer.

When user execute the program, it will display” Welcome to bank system!!!” and the local time and show the main choice interface. In the interface, there has 7 modes for user to choice. The first two choices are to create and log in a customer account. The third and the forth choice is to create and log in a clerk account. The fifth and sixth is to create and log in a manager account. The last one is to exit the program

**Main interfaces:**

1. **Create a customer account**

In creating customer interface, the program will ask the customer to input the name within 20-digit character. Then, it will ask the customer to input the telephone number with in 15-digit numbers. Pay attention about this! A customer can only have one phone number, for which this phone number act just like the personal ID and the manager use the phone number to identify the customer and add accounts. Finally, it will ask customer to input address and pin password and give the customer a card number which means the account has already been set up.

1. **Log in as a customer**

In second big mode which is to log in the account, the program will ask the customer to input their 8-digit card number and 6-digit pin password. The customer can log in successfully if the card number corresponds the pin. Then, the program will display a function menu for customer to choice. After customer selects the mode, he must input the pin password again to confirm his account.

1. Withdrawal the money from account.

It will first display customer’s left money in account and then let the customer to enter the amount they want to withdraw. The amount of withdraw money can not larger than account money.

2. Access account information.

It will display all of the information the customer has entered.

3. Change pin number.

In this mode, it will ask you to enter a new 6-digit pin and confirm the new 6-digit pin number again. If the first and second entering new 6-digit pins are not the same, the program will promote customer and return to the main choice interface.

4. Transfer money to others.

After enter the pin, the screen will display the money that the customer has left. Then, it will ask the customer to enter the card id which will be transferred. The program will promote customer if they enter the transfer money larger than left money. Finally, if customer has down the required procedure, it will display “Success to transfer the money”.

5. Access to activities record.

After customer enter the pin, the screen will display card id and the activity record, such as the time when the account was build and logged in and transfer record.

6. Log out.

This mode is no need for customer to enter the pin. It will return to the main choice interface.

1. **Create a clerk account.**

In this big mode, the program will ask the user to enter a clerk name within 15-digit characters. If the clerk enters the name which has been used, the program will promote the clerk. Then, it will ask the clerk to enter a password within 10-digit. If the clerk’s input name or password exceed the scope, the program will require clerk to input again.

1. **Log in as a clerk.**

In the forth big mode, the program will ask the clerk to enter their name and password. If the name can correspond the password, clerk can log in successfully and enter the function choice menu.

1. Add account for an existing customer.

In this mode, the clerk will help the existing customer to add an account. First, the program will ask the clerk to enter the customer’s phone number to confirm the customer. The clerk can help customer to create a new account by the use of customer’s phone number. A customer can only have one telephone number. Then, the program will require the clerk to enter the new 6-digit pin. Finally, it will give clerk a new card id which means the clerk has helped the customer to add account.

2. Delete account for an existing customer.

In this mode, the clerk will help the existing customer to delete an account. First, the program will ask clerk to enter the existing customer’s card id which want to delete. Then, it will display “This account has been deleted”.

3. Amend accounts information.

In this mode, the clerk can help the existing customer to amend their account. First, they ask clerk to enter the card id number. Second, the screen displays the menu for clerk to choose. The clerk can amend the name and address. Finally, after the clerk amend the customer’s information, they can return to the function menu.

4. Make deposits into a account.

In this mode, the clerk can help the existing customer to deposit money into their account. First, the program will ask the clerk to enter the card id. Then, it will ask clerk to enter the amount of money want to deposit. Finally, it will display” Success to deposit the money!!”.

5. Set up standing order.

In this mode, the program can follow a frequency such as once a week to transfer money from one account to another account. However, because of time and knowledge, we can not handle this function.

6. Log out

If the clerk chose this mode, the program will return to the main interface.

**5. Creak a manager account.**

In fifth big mode, the program can create a manager account. First, the program will ask the manager to enter a name with-in 15-digit character. Then, it will ask the manager to enter a password with in 10-digit characters. If the manager’s input name and password exceed the scope, the program will require the manager to input them again.

1. **Log in as a manager**

In the sixth big mode, the program will ask the manager to enter their name and password. If the name can correspond the password, manager can log in successfully and enter the function choice menu.

1. Access customer account information.

In this mode, the manager can access customer’s account information. First, the program will ask the manager to enter the 8-digit card id which he want to access. As for the manager has the highest authority, the customer’s information will be displayed immediately.

2. Block or unblock accounts.

In this mode, the manager can block or unblock customers’ accounts. First, the program will ask the manager to enter the 8-digit card id which need to be blocked or unblocked. If the card id was blocked before and the manager want to unblock the account, the manager can press “U” to unblock it. If the card id is active but the manager want to block it, the manager can press “B“. After the manager finish the press, the screen will display the results of accounts’ statements.

3. Number of customers.

In this mode, the manager can get the information of number of customers. When the manager chooses 3, the program can display the number of customers immediately.

4. Number of accounts.

In this mode, the manager can get the information of number of accounts. A customer can have many accounts. When the manager chooses 4, the program can display the number of accounts immediately.

5. Average accounts per customer.

In this mode, the manager can get the data of average accounts per customer. When the manager chooses 5, the program can display the data of average accounts per customers.

6. Total account balance.

In this mode, the manager can get the information of total account balance, when the manager chooses 6, the program can display the data of total account balance.

7. Average account balance.

In this mode, the manager can get the information of average account balance. When the manager chooses 7, the program can display the data of average account balance.

8. Lot out.

The manager can choose 8 to return to the main choice interface.

1. **Exit**

In the seventh mode, user can press “7” to exit the program.

These are all the functions which this program can achieve. In conclusion, this program of bank information system is really near the real bank system. The function of customers, clerk and manager are all approach the requirements.