

University of Sri Jayewardenepura
Mock Test - October 2022
ICT107 1.0 Computer Programing- Laboratory 1

Instructions:

1. Answer all the questions
 2. Duration: 3 hours
 3. Candidates may use lecture notes.
 4. Read the problem thoroughly, design and write a structured, user friendly program in C.
You are encouraged to write the comments but no marks are allocated for comments.
You have to use good programming techniques that you have learned in the class.
 5. Write your index number, as a comment, on the first line of your program.
 6. Please do not ask to explain the problem (not even a part of it). If you think something is unclear or ambiguous, make a reasonable assumption (one that does not contradict the question). Write it after your index number as a comment under the assumptions you made.
 7. If you have an error in your program, which you cannot correct, please ask for assistance.
Some marks will be deducted.
 8. Create a new project with the following information:
 - I. Project title: AS2022dddd(Where *d*'s are the last three digits of your index number.
 - II. Folder to create project in : Desktop
 - III. File name: question01.c
 9. At the end of examination copy the folder named AS2022dddd on the desktop to exam_nn drive (where nn is the machine number).
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Question 01

ATMs also known as Automated Teller Machines are used to carry day-to-day financial transactions. ATMs can be used to deposit money, withdraw money, or even access account information such as the balance. They are practical and simple to use, and they let customers conduct speedy self-service transactions..

In this problem sheet, You need to implement an ATM Management System in C which is an application that provides users with every aspect that an actual Automated Teller Machine i.e., ATM should have. It is a menu-driven program having ATM functions which include balance checking, deposit, and withdrawal.

Write a C program to perform the following tasks. Write separate functions to process each menu option.

Main Menu option

Figure 01 shows the main menu screen of the program. First, the user will select a task. According to the menu selection, the user will direct to the relevant screen. When a user enters the incorrect selection number, it will prompt an error message and ask to re-enter the selection number. The input screens of the “Check Balance” , “Deposit” and “Withdraw” are shown in Figure 2, 4 and 5 respectively. After completing the selected task, the user will return to the main menu. The system will continue this process until the user selects the “exit” option.

```
*****Hello!*****
*****Welcome to ATM Banking*****

****Please choose one of the options below****

< 1 >  Check Balance
< 2 >  Deposit
< 3 >  Withdraw
< 4 >  Exit

=====
Your Selection
```

Figure 01: Main menu option

Check Balance option

When the user selects the “check balance option”, the system will show your available balance as in Figure 02. Assume the system already keeps a record of the user’s account balance. Furthermore, the system will ask the user to continue or stop the transactions.

If the user continues the transaction then the system again will redirect to the main menu as in Figure 01 otherwise it will show the thanking message to end the transaction process as in Figure 03.

```
=====
Your Selection: 1
You Choose to See your Balance

****Your Available Balance is:   $15000.00

=====
Would you like to do another transaction:
< 1 > Yes
< 2 > No
```

Figure 02: Check balance option.

```
=====
Would you like to do another transaction:
< 1 > Yes
< 2 > No
2
-----Take your receipt!!!-----
-----Thank you for using ATM Banking Machine!!!-----
-----BROUGHT TO YOU BY itsourcecode.com-----

...Program finished with exit code 0
Press ENTER to exit console.
```

Figure 03: No transactions and thank you message option.

Deposit option

When the user selects the “Deposit” option, the system will prompt to enter the deposit amount as in Figure 04. After the user enters the amount, the system will show the latest balance and ask for another transaction as in Figure 04.

If the user continues the transaction then the system again will redirect to the main menu as in Figure 01 otherwise it will show the thanking message to end the transaction process as in Figure 03.

```
****Enter your amount to Deposit
10000

****Your New Balance is:   $25000.00

=====
Would you like to do another transaction:
< 1 > Yes
< 2 > No
```

Figure 04: Deposit option.

Withdrawal option

When the user selects the “Withdraw” option, the system will prompt to enter the withdrawal amount as in Figure 05. After the user enters the amount, the system will show the latest balance and ask for another transaction as in Figure 05.

If the user continues the transaction then the system again will redirect to the main menu as in Figure 01 otherwise it will show the thanking message to end the transaction process as in Figure 03.

```
=====
Your Selection: 3
You choose to Withdraw a money
$$$$Your Balance is: $25000.00

Enter your amount to withdraw:
8000

$$$$Your withdrawing money is:  $8000.00
****Your New Balance is:   $17000.00

=====
Would you like to do another transaction:
< 1 > Yes
< 2 > No
```

Figure 05: Withdrawal option.
