Green University of Bangladesh

Department of Computer Science and Engineering (CSE)

Faculty of Sciences and Engineering
Semester: (Summer, Year: 2021), B.Sc. in CSE (Day)

Course Title: Structured Programming Lab
Course Code: CSE 104 Section: 211DB

Lab Project Name: ATM Both Calculation System

Student Details

	Name	ID
1.	Md Kowsar Ul Alom	213902096

Submission Date: _
Course Teacher's Name: _

[For Teachers use only: Don't Write Anything inside this box]

Lab Project Status

Marks: …… **Signature: .....**

Comments: ..... **Date: .....**

Table of Contents

Chapter 1

Introduction

1.1 Introduction

Generally, banking system has been working continuously for many years. Cash or paper money has been the payment mechanism for centuries in nationwide. In traditional banking methods customer will need to interact with the cashier which will be appointed by the bank to handle bank services such as withdraw money cash deposits and reporting loss of ATM cards by customers. At times when a customer should be performing any services on the bank, the process are done over the counter. In modern days, the system banking has changed in a technological way where Automated Teller Machine (ATM) was introduced.The ATM provides many functions as required, but the current method has shown few drawbacks until he loses his ATM debit card. From this point of view customers will need to perform the report through traditional methods which are manually reporting it to the bank which could delay the time taken to perform and reporting it through hotlines where it might face unexpected and scheduled maintenance. To address the current drawbacks as stated, ATM reporting system hasbeen proposed as an alternative method where it only requires customers to report the loss through the ATM machine which in fact

could provide the ease of usage to the customers.

1.2 Design Goals/Objective

The main purpose of this proposed idea is mainly focusing on the new feature that can be implemented as a possible alternative to the traditional methods. Automated Teller Machine (ATM) has been working for a long term, providing all the required features for the customers to use such as withdrawing money or cash deposits. Based on
the traditional methods in banking system, the bank will appoint a person, the teller to assist the customers when the customers need to perform any services in a bank. The customers on the other hand, will need to request for forms and the forms will be submitted to the counter. In order to perform, customers will need to queue up the line while waiting for their turns. ATM refers to a machine that acts as a bank teller by receiving and issuing money to and from the ATM account holders/users (Singh, 2009). In this new era of technology, ATM machine was used as a convenient way of getting his money from banks. These customers would not have to queue for longer lines while waiting for their turns but instead, these customers only need their ATM cards to perform such services. A person will no longer have to carry a wallet-full of paper money, or in the other terms, cash along to where

the customers want to go. Customers will only need the ATM card, insert it in the slot of the machine without having any required form to perform their wanted services. ATM is designed to perform the most important functions of the bank. By using plastic cards, containing all personal details of the customers and they will only need to enter their pin numbers in order to use the services. ATM is an Electronic Fund Transfer that is capable of handling many functions, until when a person loss his ATM cards. Instead of using the traditional methods which are queuing up the line and by hotline phone call, this could be the possible alternative adding the new feature on the ATM machine, where it could be less time consuming.The ATM reporting system is very important to overcome the hotline and the lack of customer's knowledge on reporting a lost card through ATM, as their customer service would not be available. The problem statements are: Lack of knowledge in hotlines services might be a problem in reporting the loss of ATM card.The traditional methods might face unexpected and scheduled maintenance which could delay the time taken for the customers to report loss of ATM card.Report the loss of card manually could not notify the user if actions have already taken. The objectives of the project are: To develop a system with ease of usage where customers can report the loss of ATM debit cards through the ATM machine. To improvise the current method as an alternative in reporting the loss by only using the ATM machine. To be able to notify users when actions have already taken.

Chapter 2

Implementation of the Project

Algorithm

When the program is started, the user will direct to the main menu. The user will be required to select one of the four options.

Step 1: Start

Step 2: Declare variable int pin = 1234, option, enteredPin, count =

0,amount = 1,float balance = 5000,int continueTransaction = 1;

Step 3: While (pin != enteredPin)

Step 4: Read enteredPin

Step 5: If (enteredPin != pin)

Step 6: Print Invalid pin

Step 7: count++

Step 8: If (count == 3 && pin != enteredPin)

Step 9: break

Step 10: End If

Step 11: End If

Step 12: End While

Step 13: While (continueTransaction != 0)

Step 14: Print 1. Withdrawal 2.Deposit 3. Check Balance \n Please select an option

Step 15: Read option

Step 16: Switch (option)

Step 17: case 1:

Step 18: While (amount % 500 != 0)

Step 19: Read amount

Step 20: If (amount % 500 != 0)

Step 21: Print The amount should be multiple of 500

Step 22: End if

Step 23: If (balance < amount)

Step 24: Print Sorry insufficient balance

Step 25: amount = 1

Step 26: break

Step 27: else

Step 28: balance-=amount

Step 29: Print balance

Step 30: break

Step 31: End While

Step 32: End case 1

Step 33: case 2 :

Step 34: Read amount

Step 35: balance+=amount

Step 36: Print balance

Step 37: End case 2

Step 38: case 3:

Step 39: Print balance

Step 40: End case 3

Step 41: default:

Step 42: Print Invalid option

Step 43: End default

Step 44: End Switch

Step 45: Print Do you wish to perform another transaction?Press 1[yes] , 2[No]

Step 46: Read continueTransaction

Step 47: End While

Step 48: End

1. Implementation

C source code

```
#include "stdio.h"
#include "windows.h"
#include "time.h"
int main()
{
    int pin = 1234, option, enteredPin, count = 0;
    int amount = 1;
    float balance = 5000;
    int continueTransaction = 1;
    time_t now;
    time(&now);
    printf("\n");
    printf("\t\t%s", ctime(&now));
    printf("\n\t\t======Welcome to Adv. Learning
ATM=======\n");
```

```
    while (pin != enteredPin)
    {
        printf("\nPlease enter your pin : ");

        scanf("%d", &enteredPin);
        if (enteredPin != pin)
        {
            printf("Invalid Pin!!!");
            count++;
            if (count == 3 && pin != enteredPin)
            {
                break;
            }
        }
    }
    while (continueTransaction != 0)
    {
        printf("\n\t\t==========*Available
Transactions*=========");
        printf("\n\n\t\t1.Withdrawal");
        printf("\n\t\t2.Deposit");
        printf("\n\t\t3.Check Balance");
        printf("\n\n\tPlease select an option : ");
        scanf("%d", &option);
```

```
        switch (option)
        {
        case 1:
            while (amount % 500 != 0)
            {
                printf("\n\t\tEnter the amount : ");
                scanf("%d", &amount);
                if (amount % 500 != 0)
                {
                    printf("\n\t The amount should be multiple of
500");
                }
            }
            if (balance < amount)
            {
                printf("\n\t Sorry insufficient balance");
                amount = 1;
                break;
            }
            else
            {
                balance -= amount;
                printf("\n\tYou have withdrwan TK. %d. Your
new balance is %.2f", amount, balance);
```

```
            amount = 1;
            printf("\n\n\t=====Thank you for your banking with Adv. Learning=======\n");
            break;
        }
    case 2:
        printf("\n\t\t Please enter the amount : ");
        scanf("%d", &amount);
        balance += amount;
        printf("\n\tYou have deposited TK. %d. Your new balance is %.2f", amount, balance);
        amount = 1;
        printf("\n\n\t=======Thank you for your banking with Adv. Learning=======\n");
        break;
    case 3:
        printf("\n\t\tYou have TK. %.2f", balance);
        break;
    default:
        printf("\n\t\tInvalid Option!!!");
        break;
    }
    printf("\n\n    Do you wish to perform another transaction?Press 1[yes] , 2[No]");
```

```
        scanf("%d", &continueTransaction);
        system("cls");
    }

    return 0;
}
```

Screenshots

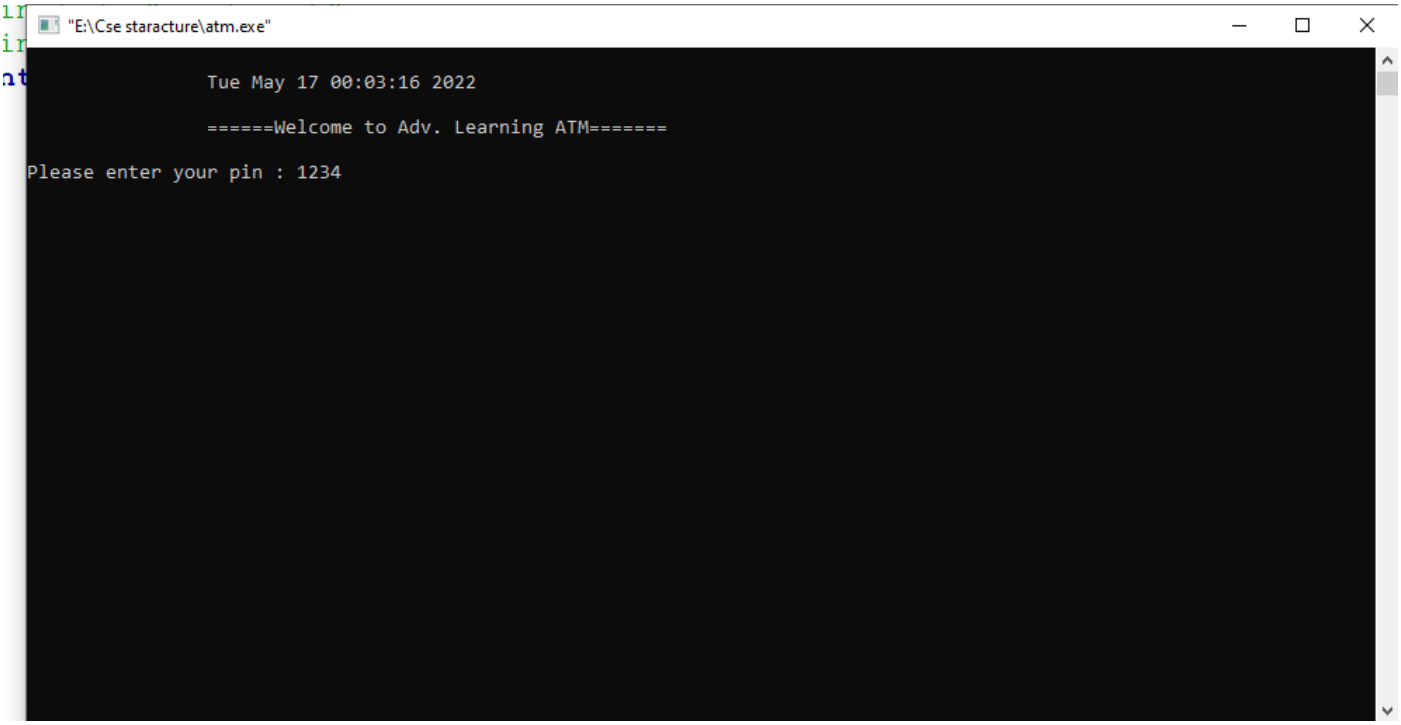

Figure 1: Main Menu interface

When the program is executed, the user will be directed to the main menu interface. The program is introduced with a few lines of texts. Then four selections are made for the user as the user can choose withdraw, deposit and check balance.

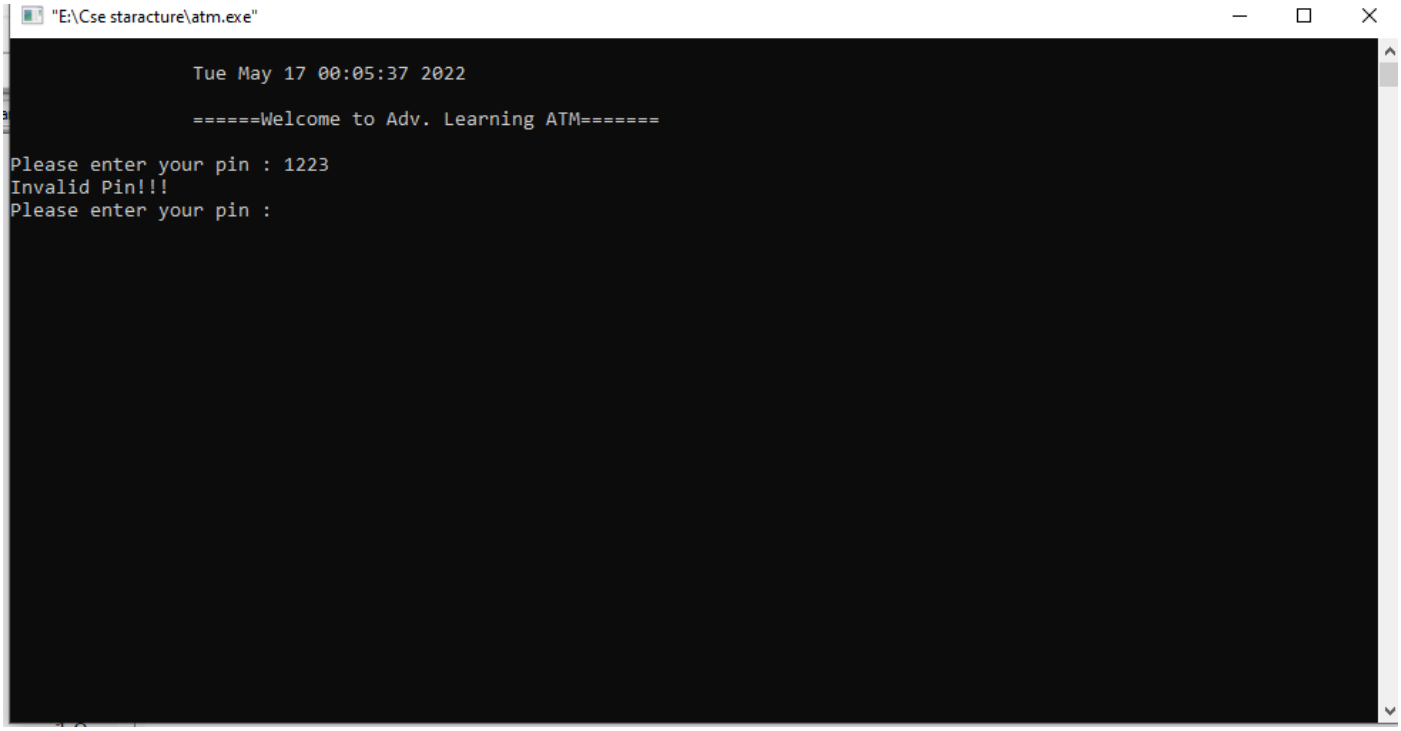

Figure 2: Invalid pin and Please enter new pin

. If the user accidentally enters an invalid input, an interface will be shown to notify the user to choose again and it notify the user again .

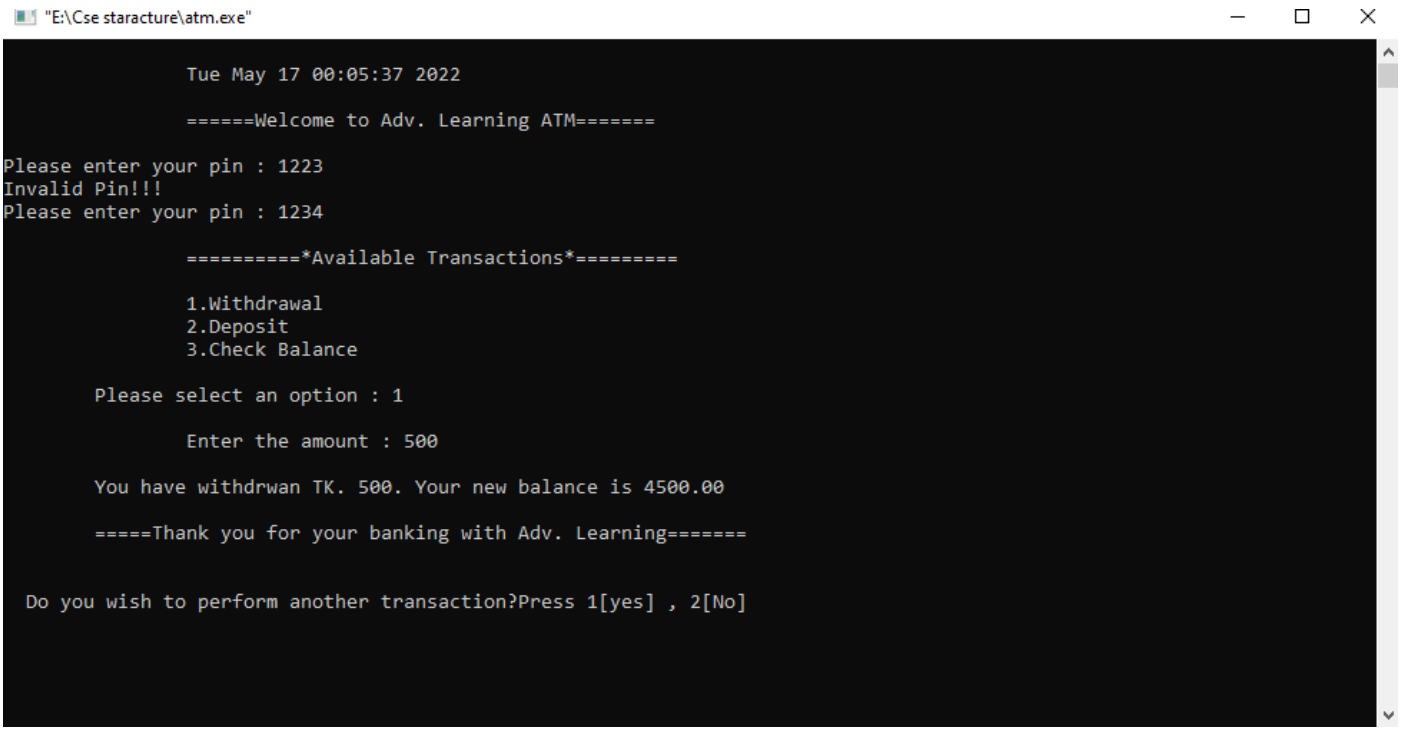

Figure 3: Withdraw ,Enter the amount and Withdraw message is here

The program is asking the user for withdraw an amount like 500 than the program run next step and withdraw the amount

you want(the amount is divided by 500)

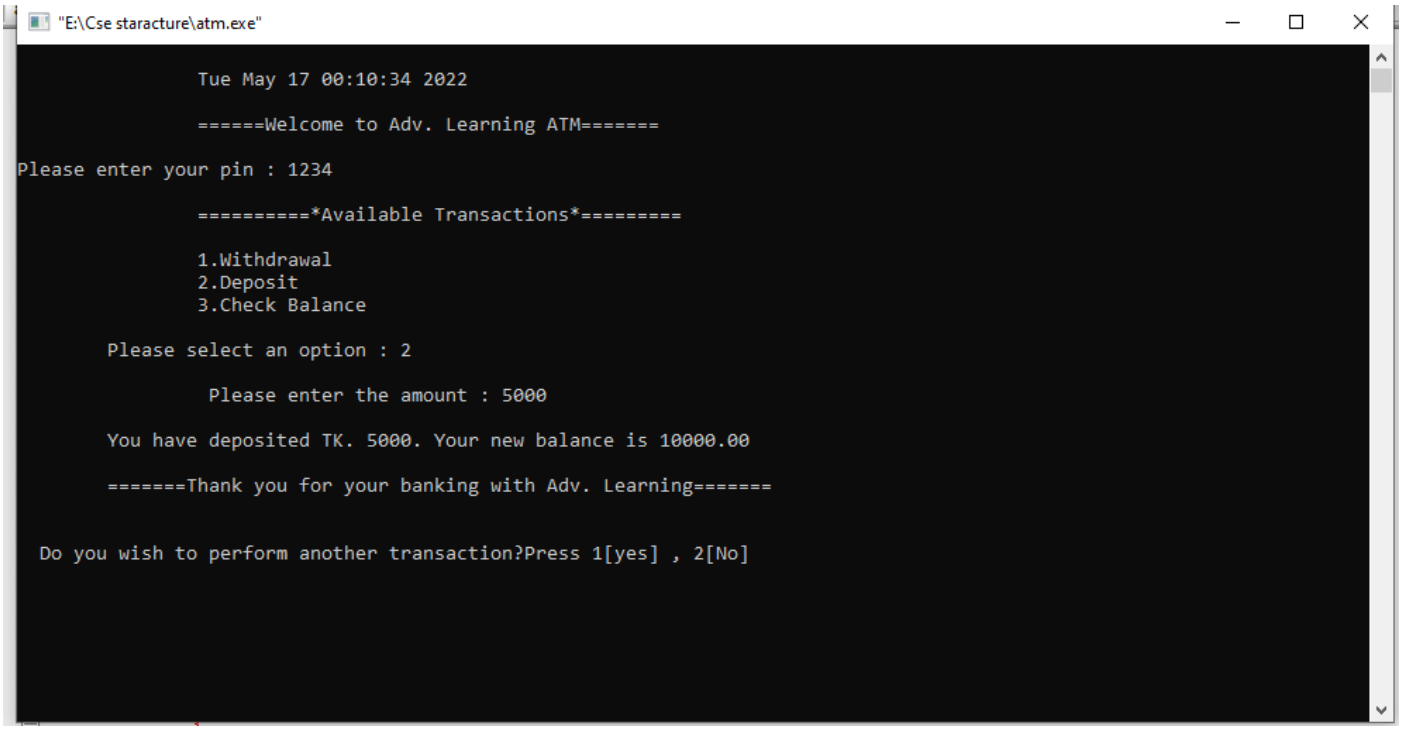

Figure 4: For deposit select type 2 and deposit the amount

For deposit select 2 and select amount for deposit like 5000 ,than the program run next step and deposit your amount .

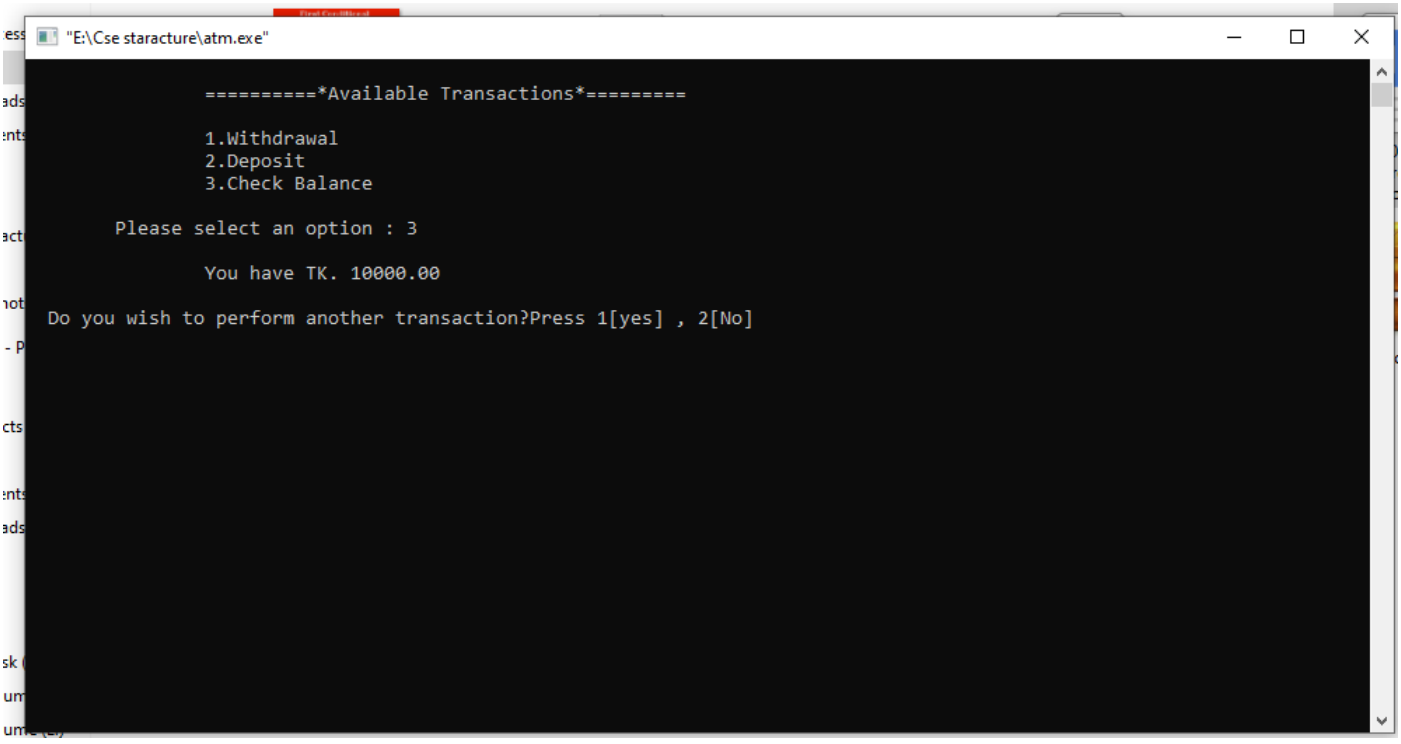

Figure 5: For check Balance type 3 and you will see your balance

The last function is check balance select 3 for checking balance than the program continue to next step and you see your current balance.

Chapter 3

Conclusion

Learning Outcome

From this presentation, one can observe that an ATM system is associated with the bank transactions of the consumers. Majorly, the ATM system is utilized for the money associated transactions from the consumers. Consumers make major use of ATM to withdraw money from their bank account. Automated teller machines (ATMs) are electronic banking outlets that allow people to complete transactions without going into a branch of their bank. Some ATMs are simple cash dispensers while others allow a variety of transactions such as check deposits, balance transfers, and bill payments.

Future Scope

ATM will be a popular "Public Technology". Original equipment manufacturers and vendors will get ample scope for handling ATM machines. Modern ATMs are now capable of personalized branding, CRM applications, integrated fraud alert, customer notifications, and flexible services

References

[1] Author Initial. Author Surname, Title. City: Publisher, Year Published, p. Pages Used.

[2] A. Rezi and M. Allam, ”Techniques in array processing by means of transformations, ” in Control and Dynamic Systems, Vol. 69, Multidemsional Systems, C. T. Leondes, Ed. San Diego: Academic Press, 1995, pp. 133-180.

[3] O. B. R. Strimpel, ”Computer graphics,” in McGraw-Hill Encyclopedia of Science and Technology, 8th ed., Vol. 4. New York: McGraw-Hill, 1997, pp. 279-283.

[4] K. Schwalbe, Information Technology Project Management, 3rd ed. Boston: Course Technology, 2004.