DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING
College of Engineering and Technology
SRM Institute of Science and Technology

MINI PROJECT REPORT

ODD Semester, 2023-2024

Lab code & Sub Name	:	18ECE201J- Python and Scientific Python
Year & Semester	:	III Year, V semester
Project Title	:	ATM MACHINE MANAGEMENT SYSTEM
Lab Supervisor	:	DR R DAYANA
Team Members	:	ROHAN GARG (RA2111004010007) KUNAL RAJ (RA2111004010015) G.ANANTHA NARAYAN (RA2111004010030)

Particulars	**Max Marks**	**Marks obtained**	**Marks obtained**	**Marks obtained**
		Rohan garg	**Kunal raj**	**Anantha narayan**
		RA2111004010007	**RA2111004010015**	**RA2111004010030**
Program and Execution	20			
Demo verification &viva	15			
Project Report	05			
Total	**40**			

Date: **Signature of Course Teacher**

ATM MACHINE MANAGEMENT SYSTEM

OBJECTIVE:

To design a program for atm machine management.

ABSTRACT:

The ATM Machine Management System is the project which is used to access their bank accounts in order to make cash withdrawals. Whenever user want to make withdrawals, they can enter their ATM card and verified PIN, then user select the withdrawal option and enter the withdrawal amounts and it will display the amount to be withdrawn. The user also able to perform one or more transactions. Security is the foundation of good ATM system. This system will provide for secure connections between users and the bank servers.

INTRODUCTION:

The ATM is an automatic banking machine which allows the user to complete basic transactions without any help of bank representatives. There are two types of automated teller machine. The basic one allows the customer to only draw cash and receive a report of the account balance. Another one is a more complex machine which accepts the deposit, provides credit card payment facilities and reports account information.

SOFTWARE REQUIREMENTS:

Software: Anaconda Navigator & Jupyter, Spyder - Python 3

CONCEPTS/WORKING PRINCIPLE:

In Python, we can create an ATM program for representing ATM transection. In the ATM program, the user has to select an option from the options displayed on the screen. The options are related to withdraw the money, deposit the money, check the balance, and exit. To withdraw the money, we simply get the withdrawal amount from the user and remove that amount from the total balance and print the successful message To deposit the money, we simply get the deposit amount from the user, add it to the total balance and print the successful message.

APPROACH/METHODOLOGY/PROGRAMS/OUTPUT:

In [1]:
```
def transfer_account(a,b,c,d,e,us):
    print(a, b, c, d, e)
    f = str(a) + "," + str(b) + "," + str(c) + "," + str(d)+","+ str(us)+ "\n"
    g = str(a) + "," + str(b) + "," + str(c) + "," + str(e)+","+ str(us)+"\n"
    z = input("Enter the card no : ")
    y = z.split(" ")
    x = str(y[0])+str(y[1])+str(y[2])
    with open('database.txt', 'r') as file:
        for line in file:
            clean_line = line.rstrip('\n')
            word =clean_line.split(',')
            number = int(word[1])
            if number == int(x) :
                u = int(word[0])
                v = int(word[1])
                s = int(word[2])
                t = int(word[3])
                user = word[4]
    w = int(t) + d - e
    h = str(u) + "," + str(v) + "," + str(s) + "," + str(t) +","+ str(user)+ "\n"
    k = str(u) + "," + str(v) + "," + str(s) + "," + str(w) +","+ str(user)+"\n"
    print("Money transfered to ",z," is : ", d-e)
    with open('database.txt', 'r') as file:
        lines = file.readlines()
    for i in range(len(lines)):
        if a == i + 1:
            lines[i] = lines[i].replace(f,g)
    for j in range(len(lines)):
        if u == j + 1:
            lines[j] = lines[j].replace(h,k)
    with open('database.txt', 'w') as file:
        file.writelines(lines)
#file_update('value_to_update', 'value2', 'value3', 'old_value', 'new_value')
```

In [2]:
```
def file_update(a, b, c, d, e,u):
    f = str(a) + "," + str(b) + "," + str(c) + "," + str(d) +","+ str(u)+ "\n"
    g = str(a) + "," + str(b) + "," + str(c) + "," + str(e) +","+ str(u)+ "\n"
    with open('database.txt', 'r') as file:
        lines_before = file.readlines()
    for i in range(len(lines_before)):
        if a == i + 1:
            lines_before[i] = lines_before[i].replace(f, g)
    with open('database.txt', 'w') as file:
        file.writelines(lines_before)
# Example usage
#file_update('value_to_update', 'value2', 'value3', 'old_value', 'new_value')
```

In [3]:
```
def operator(g,h,j,k,username):
    print(g,h,j,k)
    user = username
    i = int(input("enter the password : "))
    if j == i :
        print('''
        1. Deposit
        2.withdraw
        3.ministatement
        4.transfer
        5.exit''')
        amount=k
        option=int(input("select your option : "))
        if option==1:
            dep= int(input("Enter the amount: "))
            amount+=dep
            print("Total amount is:",amount)
            file_update(g,h,j,k,amount,user)
        elif option==2:
            withd=int(input("Enter the amount: "))
            amount-=withd
            print("Total amount is :",amount)
            file_update(g,h,j,k,amount,user)
        elif option==3:
            print("=====ATM=====")
            print("Username",username)
            print("Total amount", amount)
            print("Thankyou for visiting")
            print("visit again")
        elif option==4 :
            trans=int(input("Enter the amount: "))
            amount-=trans
            print("Total amount is :",amount)
            transfer_account(g,h,j,k,amount,user)
        else :
            print("Goodbye have a nice day")
    else :
        print("please enter corret login creedentials")
```

n [4]:
```
a = input(" Enter the card no : ")
```

```
Enter the card no : 1234 5678 9015
```

In [35]:
```
b =[int(x) for x in a.split(" ")]
e = len(b)
d = str(b[0])+str(b[1])+str(b[2])
f = a.split(" ")
g = "".join(f)
c = len(str(g))
print(c)
print(b)
```

```
12
[1234, 5678, 9015]
```

In [36]:
```
if c == 12 :
    with open('database.txt', 'r') as file:
        for line in file:
            clean_line = line.rstrip('\n')
            word =clean_line.split(',')
            number = int(word[1])
            if number == int(d) :
                operator(int(word[0]),int(word[1]),int(word[2]),int(word[3]),word[4])
else :
    print("Please enter the right PIN")
```

```
5 123456789015 1234 5000
enter the password : 1234

        1. Deposit
        2.withdraw
        3.ministatement
        4.transfer
        5.exit
select your option : 4
Enter the amount: 200
Total amount is : 4800
5 123456789015 1234 5000 4800
Enter the card no : 1234 5678 9013
Money transfered to  1234 5678 9013  is :  200
```

OUTPUT

Database values before deposit

jupyter database.txt ✔ 2 minutes ago

File Edit View Language

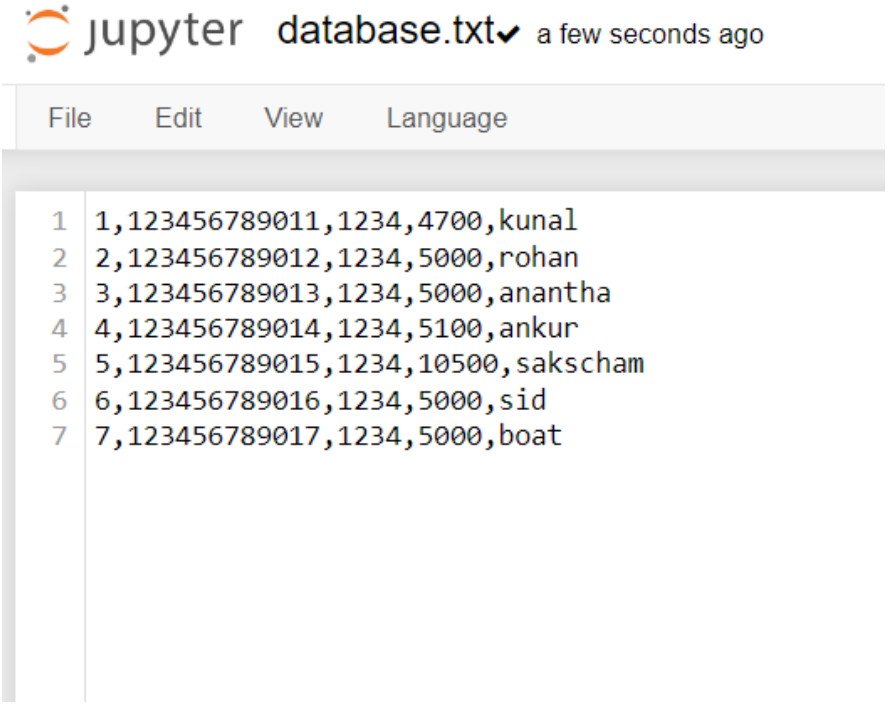
```
1,123456789011,1234,4700,kunal
2,123456789012,1234,5000,rohan
3,123456789013,1234,5000,anantha
4,123456789014,1234,5100,ankur
5,123456789015,1234,5500,sakscham
6,123456789016,1234,5000,sid
7,123456789017,1234,5000,boat
```

In [12]:
```
if c == 12 :
    with open('database.txt', 'r') as file:
        for line in file:
            clean_line = line.rstrip('\n')
            word =clean_line.split(',')
            number = int(word[1])
            if number == int(d) :
                operator(int(word[0]),int(word[1]),int(word[2]),int(word[3]),word[4])
else :
    print("Please enter the right PIN")
```

```
5 123456789015 1234 5500
enter the password : 1234

        1. Deposit
        2.withdraw
        3.ministatement
        4.transfer
        5.exit
select your option : 1
Enter the amount: 5000
Total amount is: 10500
```

Data base values after deposit

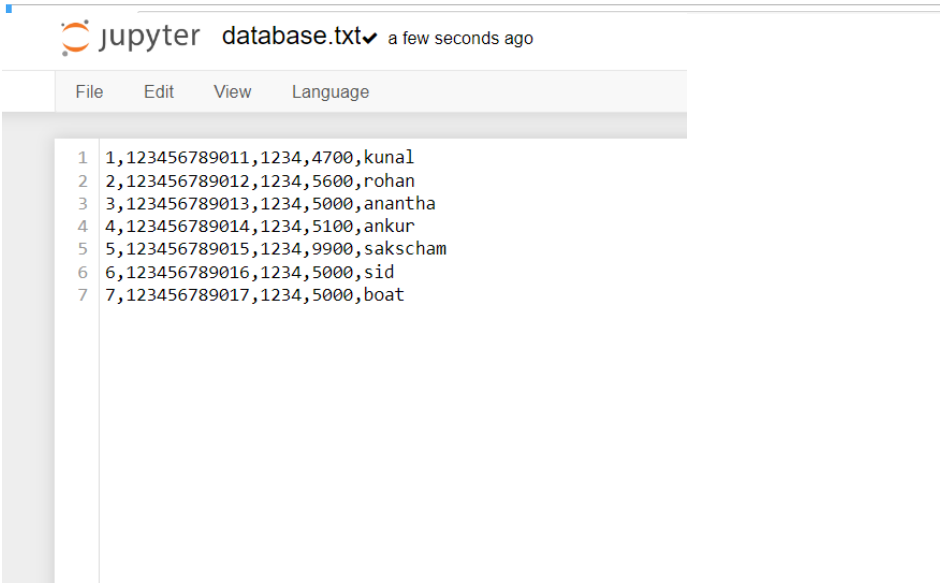


Now we transfer some amount from one account to another

```
In [14]: if c == 12 :
             with open('database.txt', 'r') as file:
                 for line in file:
                     clean_line = line.rstrip('\n')
                     word =clean_line.split(',')
                     number = int(word[1])
                     if number == int(d) :
                         operator(int(word[0]),int(word[1]),int(word[2]),int(word[3]),word[4])
         else :
             print("Please enter the right PIN")
```

```
5 123456789015 1234 10500
enter the password : 1234

        1. Deposit
        2.withdraw
        3.ministatement
        4.transfer
        5.exit
select your option : 4
Enter the amount: 600
Total amount is : 9900
5 123456789015 1234 10500 9900
Enter the card no : 1234 5678 9012
Money transfered to  1234 5678 9012  is :  600
```



CONCLUSIONS:

Hence, a program atm machine management system is designed in Python.

REFERENCES:

https://sourcecodeherd.com/atm-program-in-python-with-source-code/
https://code-projects.org/simple-atm-system-in-python-with-source-code/