THINK-CHAMP PRIVATE LIMITED

INTERNSHIP REPORT on

PYTHON PROJECT : ATM MACHINE

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INTRODUCTION

Programming is crucial for an ATM machine as it defines and implements essential functions like cash withdrawal, balance inquiry, and fund transfers. It also creates a user-friendly interface that allows customers to navigate through the ATM's options and complete transactions with ease.

By using this project the user can able to perform different functionalities like login, balance checking , withdraw, change pin , etc..

To perform the above tasks we have developed a python program using the libraries like os,string,getpass.

2.Steps:

Step 1: To begin, we import the necessary modules os, string, and getpass.

Step 2: We then establish a list containing user information such as usernames, corresponding PINs, and bank statements.

Step 3: Next, we prompt the user for input and utilize a while loop to verify the existence of the entered username.

Step 4: Once the username has been validated, we employ the getpass module to securely request the user's PIN.

Step 5: If the PIN is correct, the user successfully logs into their account. However, if the PIN is incorrect after three attempts, the card will be blocked.

Step 6: Upon successful login, we display a welcoming message "Welcome to the ATM" along with the main menu options, which include Mini Statement, Withdraw, Change PIN, Deposit Money, and Quit.

Step 7: To facilitate user selection, we create a list that encompasses all the available options and store it in a variable. Conditional statements (if, elif, else) are then used to execute the corresponding code based on the user's choice.

3 Software requirements specification

S0FTWARE REQUIREMENTS:

- Operating System: Windows 101
- Coding Language: PYTHON
- Software: IDLE Python

HARDWARE REQUIREMENTS:

- System: Ryzen
- Hard Disk: 1TB
- Ram: 8GB

4.Coding

```
import getpass
import string
import os

# Initially creating the list of users and their pin with bank statement.
users = ['venky', 'pradeep', 'kiran']
pins = ['1111', '2222', '3333']
amounts = [20000, 15000, 10000]
count = 0
# while loop checks existance of the enterd username
while True:
	user = input('\nENTER USER NAME: ')
	user = user.lower()
	if user in users: # user user2 user 3
		if user == users[0]:
			n = 0
		elif user == users[1]:
			n = 1
		else:
			n = 2
		break
	else:

		print('*****************')
		print('INVALID USERNAME')
		print('*****************')
```

```
# comparing pin
while count < 3:

        print('******************')
        pin = str(getpass.getpass('PLEASE ENTER PIN: '))
        print('******************')

        if pin.isdigit():
                if user == 'venky':
                        if pin == pins[0]:
                                break
                        else:
                                count += 1

                                print('***********')
                                print('INVALID PIN')
                                print('***********')

                                print()

                if user == 'pradeep':
                        if pin == pins[1]:
                                break
                        else:
                                count += 1

                                print('***********')
                                print('INVALID PIN')
                                print('***********')
```

```
                print()

        if user == 'kiran':
            if pin == pins[2]:
                break
            else:
                count += 1

                print('***********')
                print('INVALID PIN')
                print('***********')

                print()
    else:

        print('************************')
        print('PIN CONSISTS OF 4 DIGITS')
        print('************************')

        count += 1

# if pin is invalid then it will be executed
if count == 3:

    print('***********************************')
    print('3 UNSUCCESFUL PIN ATTEMPTS, EXITING')
    print('!!!!!YOUR CARD HAS BEEN LOCKED!!!!!')
    print('***********************************')

    exit()
```

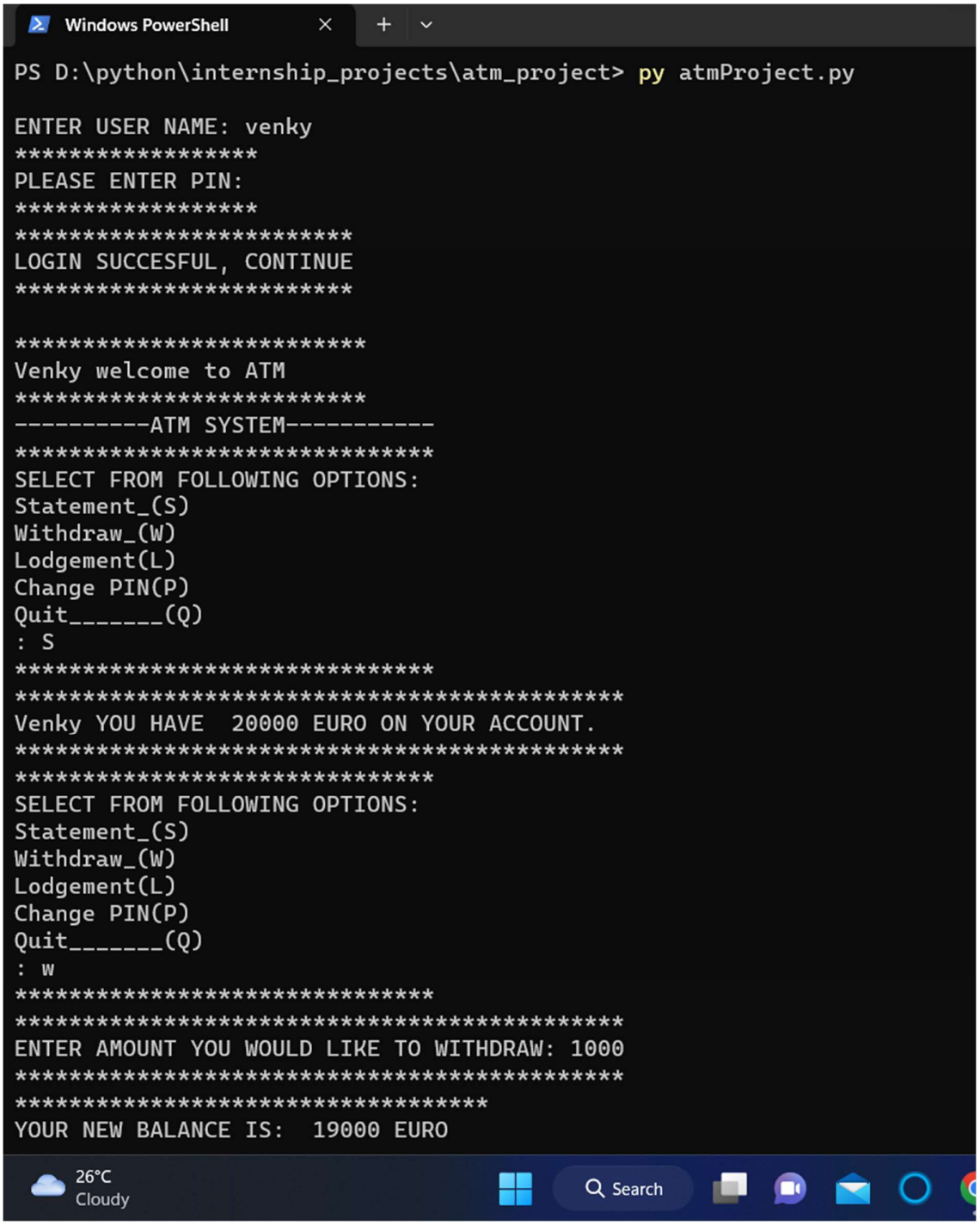
```
print('************************')
print('LOGIN SUCCESFUL, CONTINUE')
print('************************')

print()

print('*************************')
print(str.capitalize(users[n]), 'welcome to ATM')
print('*************************')
print('----------ATM SYSTEM----------')
# Main menu
while True:



        print('*******************************')
        response = input('SELECT FROM FOLLOWING OPTIONS: \nStatement_(S) \nWithdraw_(W) \nLodgement(L)  \nChange PIN(P)  \nQuit_______(Q) \n: ').lower()
        print('*******************************')


        valid_responses = ['s', 'w', 'l', 'p', 'q']
        response = response.lower()
        if response == 's':


                print('*********************************************')
                print(str.capitalize(users[n]), 'YOU HAVE ', amounts[n],'EURO ON YOUR ACCOUNT.')
                print('*********************************************')



        elif response == 'w':
```

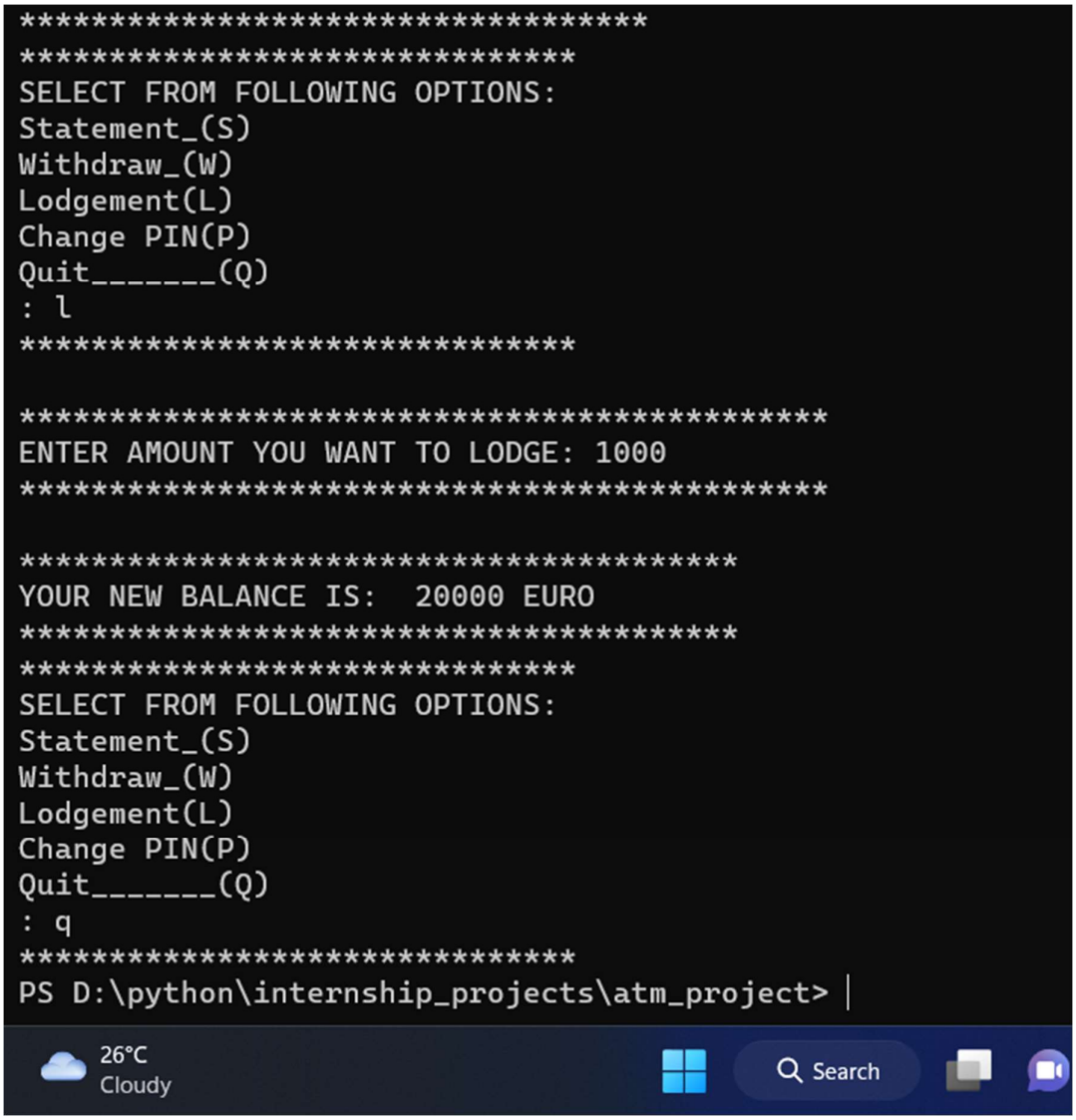
```
            print('*******************************************')
            cash_out = int(input('ENTER AMOUNT YOU WOULD LIKE TO
WITHDRAW: '))
            print('*******************************************')

            if cash_out%10 != 0:


        print('*****************************************************')
                    print('AMOUNT YOU WANT TO WITHDRAW MUST TO MATCH
10 EURO NOTES')
        print('*****************************************************')

            elif cash_out > amounts[n]:

                    print('****************************')
                    print('YOU HAVE INSUFFICIENT BALANCE')
                    print('****************************')

            else:
                    amounts[n] = amounts[n] - cash_out

                    print('**********************************')
                    print('YOUR NEW BALANCE IS: ', amounts[n], 'EURO')
                    print('**********************************')


        elif response == 'l':
            print()

            print('*******************************************')
```

```
            cash_in = int(input('ENTER AMOUNT YOU WANT TO LODGE: '))
            print('*****************************************')

            print()
            if cash_in%10 != 0:


        print('*************************************************')
                    print('AMOUNT YOU WANT TO LODGE MUST TO MATCH 10
EURO NOTES')
        print('*************************************************')

            else:
                amounts[n] = amounts[n] + cash_in

                print('*************************************')
                print('YOUR NEW BALANCE IS: ', amounts[n], 'EURO')
                print('*************************************')

        elif response == 'p':

            print('***************************')
            new_pin = str(getpass.getpass('ENTER A NEW PIN: '))
            print('***************************')

            if new_pin.isdigit() and new_pin != pins[n] and len(new_pin) == 4:

                print('******************')
                new_ppin = str(getpass.getpass('CONFIRM NEW PIN: '))
                print('******************')
```

```
                if new_ppin != new_pin:

                        print('**********')
                        print('PIN MISMATCH')
                        print('**********')

                else:
                        pins[n] = new_pin
                        print('NEW PIN SAVED')
        else:

                print('************************************')
                print('NEW PIN MUST CONSIST OF 4 DIGITS \nAND MUST BE DIFFERENT TO PREVIOUS PIN')
                print('************************************')

    elif response == 'q':
        exit()
    else:

        print('******************')
        print('RESPONSE NOT VALID')
        print('******************')
```

output


Windows PowerShell
PS D:\python\internship_projects\atm_project> py atmProject.py
ENTER USER NAME: venky
****
PLEASE ENTER PIN:
****
****
LOGIN SUCCESFUL, CONTINUE
****
****
Venky welcome to ATM
****
----------ATM SYSTEM-----------
****
SELECT FROM FOLLOWING OPTIONS:
Statement_(S)
Withdraw_(W)
Lodgement(L)
Change PIN(P)
Quit_______(Q)
: S
****
****
Venky YOU HAVE 20000 EURO ON YOUR ACCOUNT.
****
****
SELECT FROM FOLLOWING OPTIONS:
Statement_(S)
Withdraw_(W)
Lodgement(L)
Change PIN(P)
Quit_______(Q)
: w
****
****
ENTER AMOUNT YOU WOULD LIKE TO WITHDRAW: 1000
****
****
YOUR NEW BALANCE IS: 19000 EURO
26°C
Cloudy
Search



Conclusion

In conclusion, the program is necessary for an ATM machine for performing the different tasks and to serve the users, by doing this project I have learned many new concepts related the libraries like string, getpass and logics for writing a code for ATM machines.