# PROJECT
# ON
# ATM SIMULATOR

**A report submitted in the partial fulfillment**
**For the award of the Degree**

**IN**

**SOFTWARE DEVELOPMENT**

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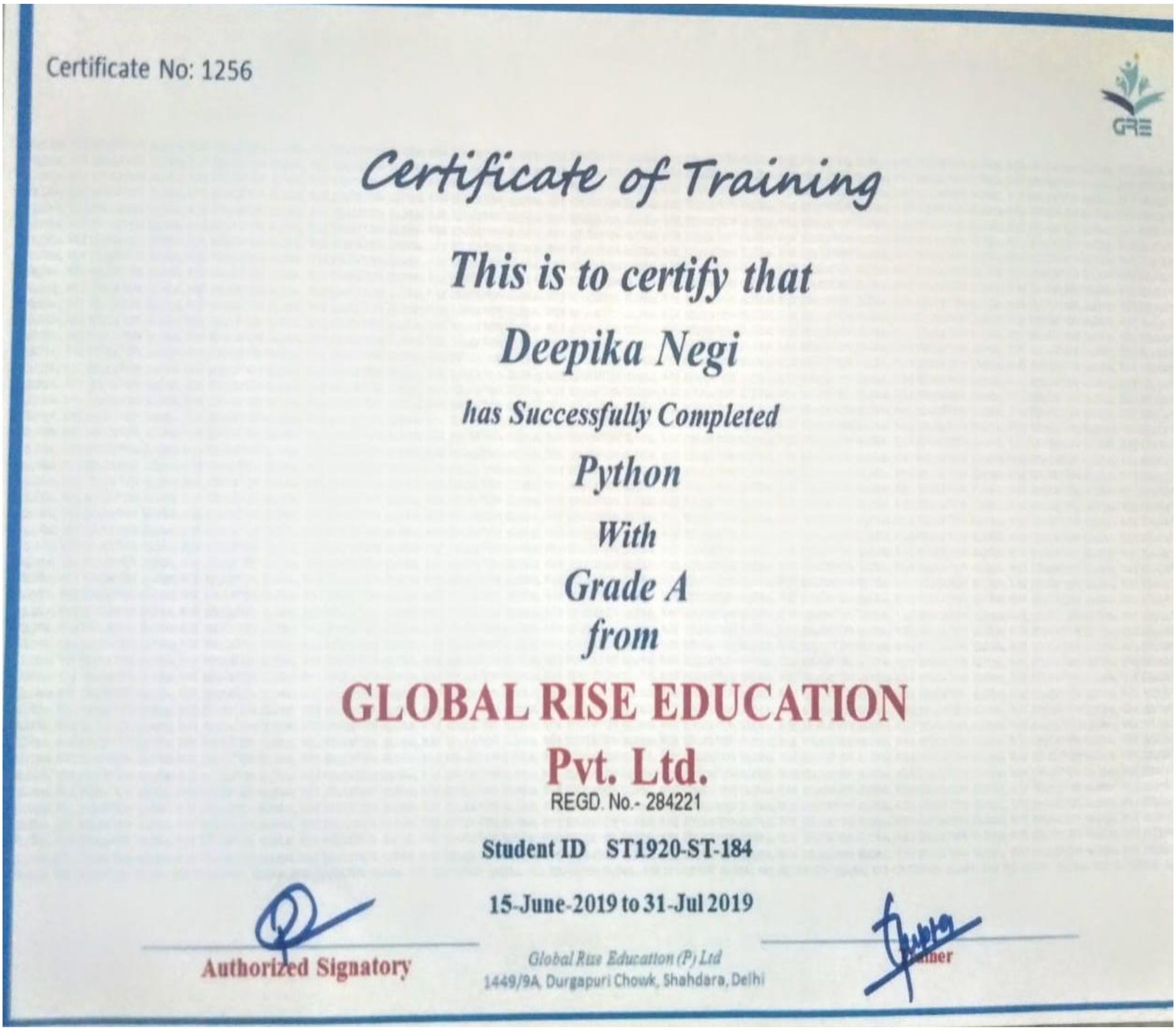
# TABLE CONTENT

# ACKNOWLEDGEMET

I would like to express my gratitude Mrs. Neetu Mehta for providing me the excellent opportunity to do a project and encouragement with help me in completion of this project on ATM SIMULATOR . I would like to express my special gratitude and thank to industry person for giving me such attention and time .

# CERTIFICATE



Certificate No: 1256

GRE

Certificate of Training

This is to certify that

Deepika Negi

has Successfully Completed

Python

With

Grade A

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# OBJECTIVE

ATM Simulation System project is to build a Python based ATM (Automated Teller Machine) Simulation System. The introduction of ATM’s by various banks have brought about freedom from the interminable queues in front of withdrawal counters at banks. This system will provide for secure authenticated connections between users and the bank servers.

# Hardware and Software Requirements

- It needs Most recent version of Google Chrome,Firefox, Internet Explores, or safari.
- Hardware Requirement:
  CPU: Single Core 2.4 GHZ
  RAM: 512 MB
  Graphic Card: Intel
  HARD Drive:5Gigabytes
- Operating System:
  window(XP,Vista,7 ,8 ,10),Mac OS, Linux, Unix.
- Internet Connection with good speed.

# INTRODUCTION
# PYTHON

Python is a interpreted, interactive and object-oriented language. Python is designed to be highly readable. It uses English keywords frequently where as other languages use punctuation, and it has fewer syntactical constructions than other languages.
Python is a MUST for students and working professionals to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning Python:

- Python is Interpreted − Python is processed at run-time by the interpreter. We do not need to compile your program before executing it.
- Python is Interactive − You can actually sit at a Python prompt and interact with the interpreter directly to write your programs.

- Python is Object-Oriented − Python supports Object-Oriented style or technique of programming that encapsulates code within objects.
- Python is a Beginner's Language − Python is a great language for the beginner-level programmers and supports the development of a wide range of applications from simple text processing to WWW browsers to games.

# FEATURES

As mentioned before, Python is one of the most widely used language over the web.

- Easy-to-learn − Python has few keywords, simple structure, and a clearly defined syntax. This allows the student to pick up the language quickly.
- Easy-to-read − Python code is more clearly defined and visible to the eyes.
- Easy-to-maintain − Python's source code is fairly easy-to-maintain. A broad standard library − Python's bulk of the library is very portable and cross-platform compatible on UNIX, Windows, and Macintosh.
- Interactive Mode − Python has support for an interactive mode which allows

# ABOUT PROJECT

ATM Simulator project is written in Python. The project file contains a python script (ATM.py). This is a simple console based system which is very easy to use. Talking about the system, it contains various functions which include Account Statement, Withdrawing, Depositing amount and changing the pin. Here, at first the user has to enter an existing username, when the username matches the system proceed toward the next procedure i.e asking pin number. When a user passes all these sign-in procedures, he/she can use all those features. It is too easy to use, he/she can check their respective account statements.While depositing or withdrawing amount, he/she just has to enter the amount then the system calculates the total remaining balance of the respective account and displays to the user. And the user can view all these transactions from the account statement. In this ATM Simulator, the user can also change the pin number.

For this, the user has to enter the New pin code and then confirm it in order to change the pin code. This simple console based ATM simulator provides the simple account balance management of a respective account. It contains all the essential features. There is no database connection or neither any external text or other files used in this mini project to save user’s data. Everything is set inside the source code whether its pin code or the amount.

## Features:

- Sign In
- Account Statement
- Withdraw amount
- Lodge amount
- Change Pin

# CODING

```
import getpass
import string
import os

print('----------------')
print('----------------')
print('*****************')
print('*****************')
print('      WELCOME')
print('            TO')
print(' ATM SIMULATOR')
print('*****************')
print('*****************')
print('----------------')
print('----------------')



# creatinga lists of users, their PINs and bank statements
users = ['deepika', 'riya', 'kajal']
pins = ['1234', '2222', '3333']
```

```
amounts = [5000, 6000, 8000]
count = 0
# while loop checks existance of the enterd
username
while True:
    user = input('\nENTER USER NAME: ')
    user = user.lower()
    if user in users:
        if user == users[0]:
            n = 0
        elif user == users[1]:
            n = 1
        else:
            n = 2
        break
    else:
        print('----------------')
        print('****************')
        print('INVALID USERNAME')
        print('****************')
        print('----------------')

# comparing pin
while count < 3:
    print('------------------')
    print('*****************')
```

```
   pin = str(getpass.getpass('PLEASE ENTER
PIN: '))
   print('******************')
   print('------------------')
   if pin.isdigit():
      if user == 'deepika':
         if pin == pins[0]:
            break
         else:
            count += 1
            print('-----------')
            print('***********')
            print('INVALID PIN')
            print('***********')
            print('-----------')
            print()

      if user == 'riya':
         if pin == pins[1]:
            break
         else:
            count += 1
            print('-----------')
            print('***********')
            print('INVALID PIN')
            print('***********')
            print('-----------')
            print()

        if user == 'kajal':
            if pin == pins[2]:
                break
            else:
                count += 1
                print('-----------')
                print('************')
                print('INVALID PIN')
                print('************')
                print('-----------')
                print()
    else:
        print('-------------------------')
        print('**************************')
        print('PIN CONSISTS OF 4 DIGITS')
        print('**************************')
        print('-------------------------')
        count += 1

# in case of a valid pin- continuing, or exiting
if count == 3:
    print('--------------------------------------')
    print('********************************
*****')
```

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

print('-------------------------')
print('**************************')
print('LOGIN SUCCESFUL, CONTINUE')
print('**************************')
print('-------------------------')
print()
print('--------------------------')
print('***************************')
print(str.capitalize(users[n]), 'welcome to ATM')
print('***************************')
print('----------ATM SYSTEM-----------')
# Main menu
while True:
    #os.system('clear')
    print('-------------------------------')
    print('********************************')
    response = input('SELECT FROM
FOLLOWING OPTIONS: \nStatement__(S)
\nWithdraw___(W) \nLodgement__(L)
\nChange PIN_(P)    \nQuit_______(Q) \n:
').lower()
    print('******************************
*')
    print('-------------------------------')
    valid_responses = ['s', 'w', 'l', 'p', 'q']
    response = response.lower()
    if response == 's':

    print('----------------------------------------------'
)

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

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

    print('----------------------------------------------'
)
```

```
    elif response == 'w':

    print('-----------------------------------------------'
)

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

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

    print('-----------------------------------------------'
)
        if cash_out%10 != 0:

    print('------------------------------------------------
--------')

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

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

   print('----------------------------------------------
--------')
      elif cash_out > amounts[n]:
         print('-----------------------------')

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

   print('*****************************')
         print('-----------------------------')
      else:
         amounts[n] = amounts[n] - cash_out
         print('-----------------------------------')

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

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

```
    elif response == 'l':
        print()

    print('---------------------------------------------'
)

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

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

    print('---------------------------------------------'
)
        print()
        if cash_in%10 != 0:

    print('----------------------------------------------
------')

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

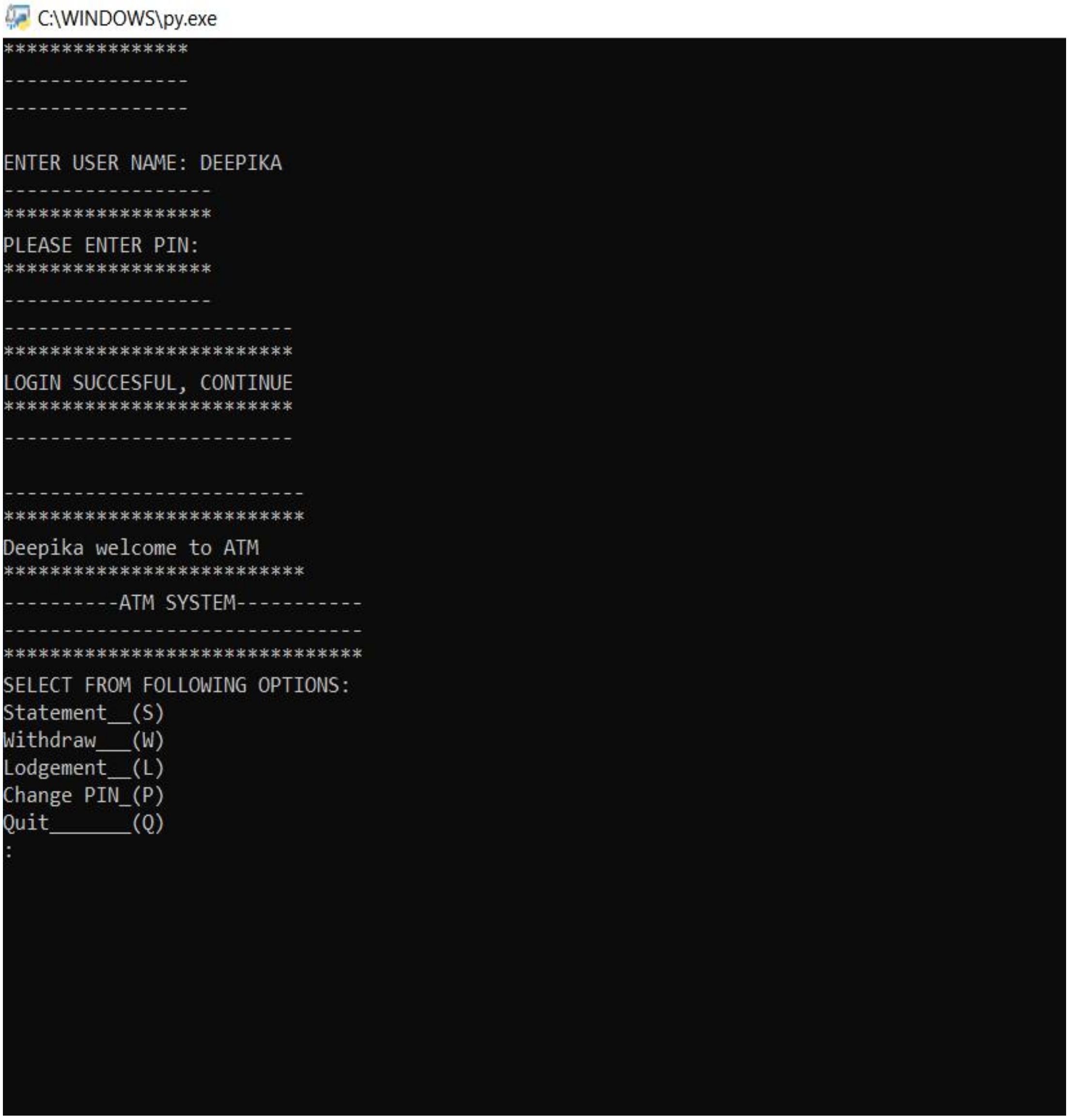
```
            print('AMOUNT YOU WANT TO
LODGE MUST TO MATCH 10 EURO
NOTES')

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

    print('--------------------------------------------------
------')
        else:
            amounts[n] = amounts[n] + cash_in

    print('--------------------------------------------')

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

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

    print('--------------------------------------------')
    elif response == 'p':
        print('--------------------------------')

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

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

    print('****************************')
        print('-----------------------------')
        if new_pin.isdigit() and new_pin !=
pins[n] and len(new_pin) == 4:
            print('------------------')
            print('******************')
            new_ppin =
str(getpass.getpass('CONFIRM NEW PIN: '))
            print('*******************')
            print('-------------------')
            if new_ppin != new_pin:
                print('------------')
                print('************')
                print('PIN MISMATCH')
                print('************')
                print('------------')
            else:
                pins[n] = new_pin
                print('NEW PIN SAVED')
        else:
            print('--------------------------------------')

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

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

   print('******************************
*******')
            print('--------------------------------------')
   elif response == 'q':
      exit()
   else:
      print('------------------')
      print('******************')
      print('RESPONSE NOT VALID')
      print('******************')
      print('------------------')
```

# SNAPS OF OUTPUT

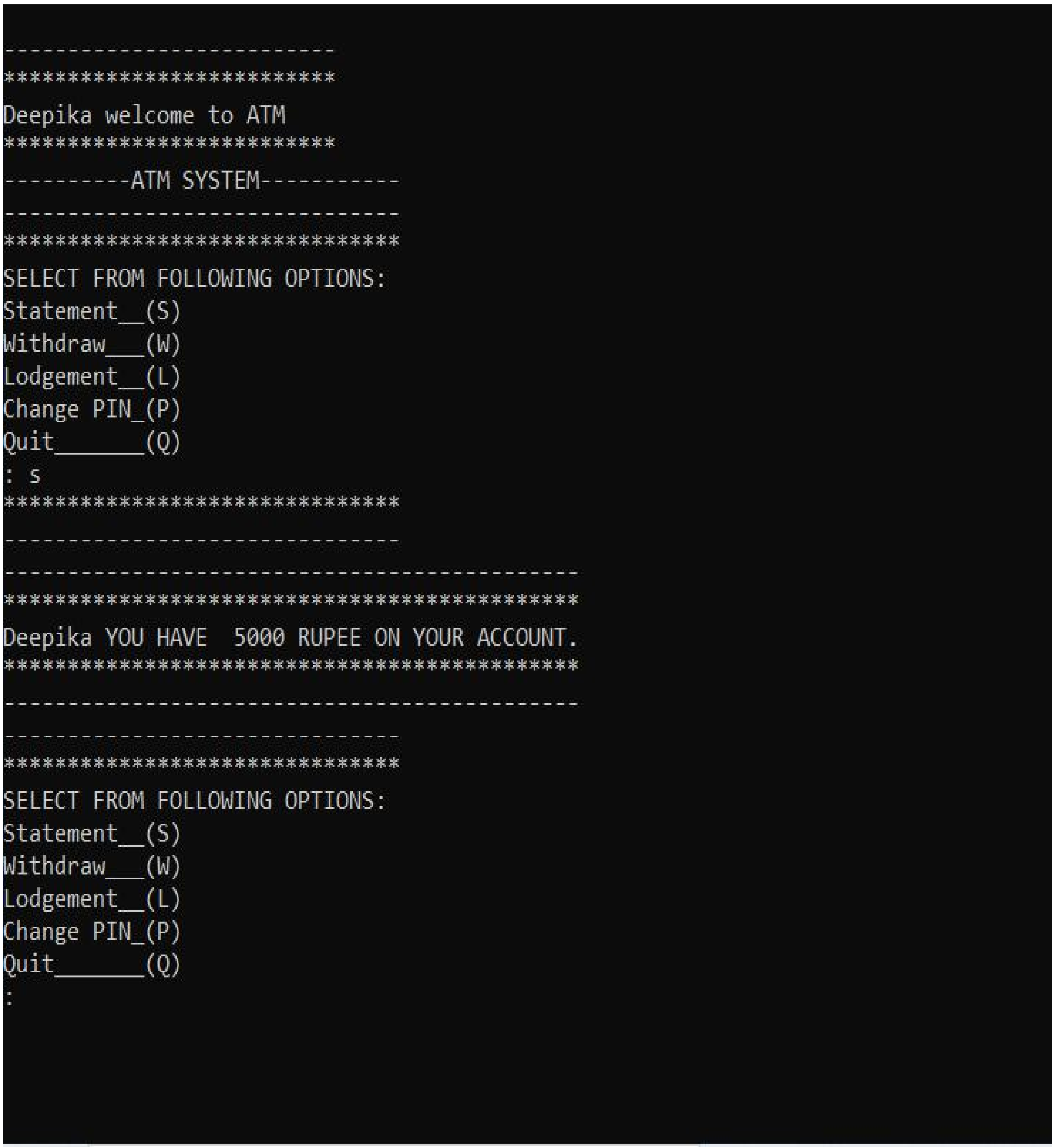
## 1.SIGN IN



C:\WINDOWS\py.exe

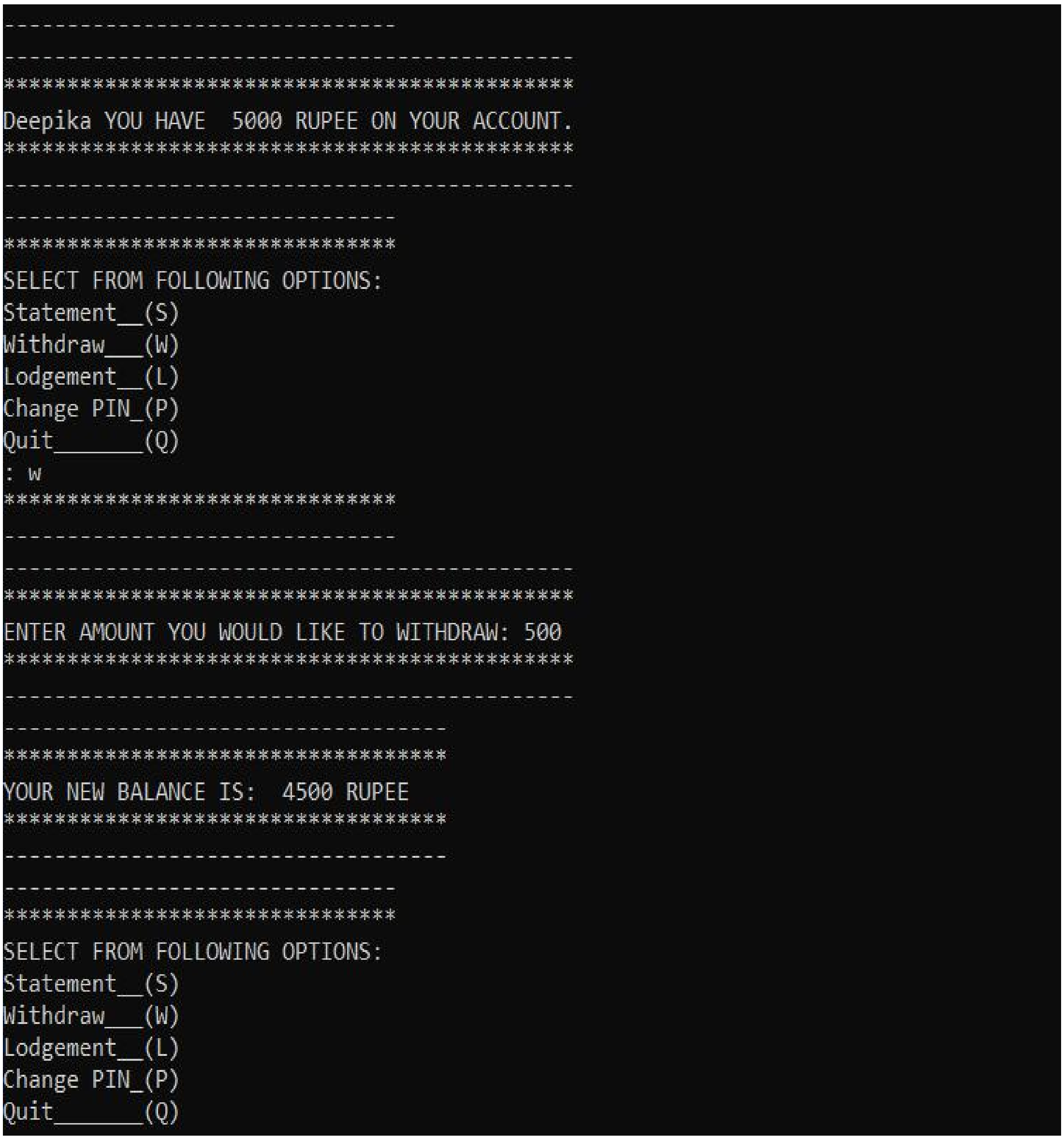
```
****************
----------------
----------------

ENTER USER NAME: DEEPIKA
------------------
******************
PLEASE ENTER PIN:
******************
------------------
-------------------------
*************************
LOGIN SUCCESFUL, CONTINUE
*************************
-------------------------

--------------------------
**************************
Deepika welcome to ATM
**************************
----------ATM SYSTEM-----------
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
:
```

# 2. ACCOUNT STATEMENT



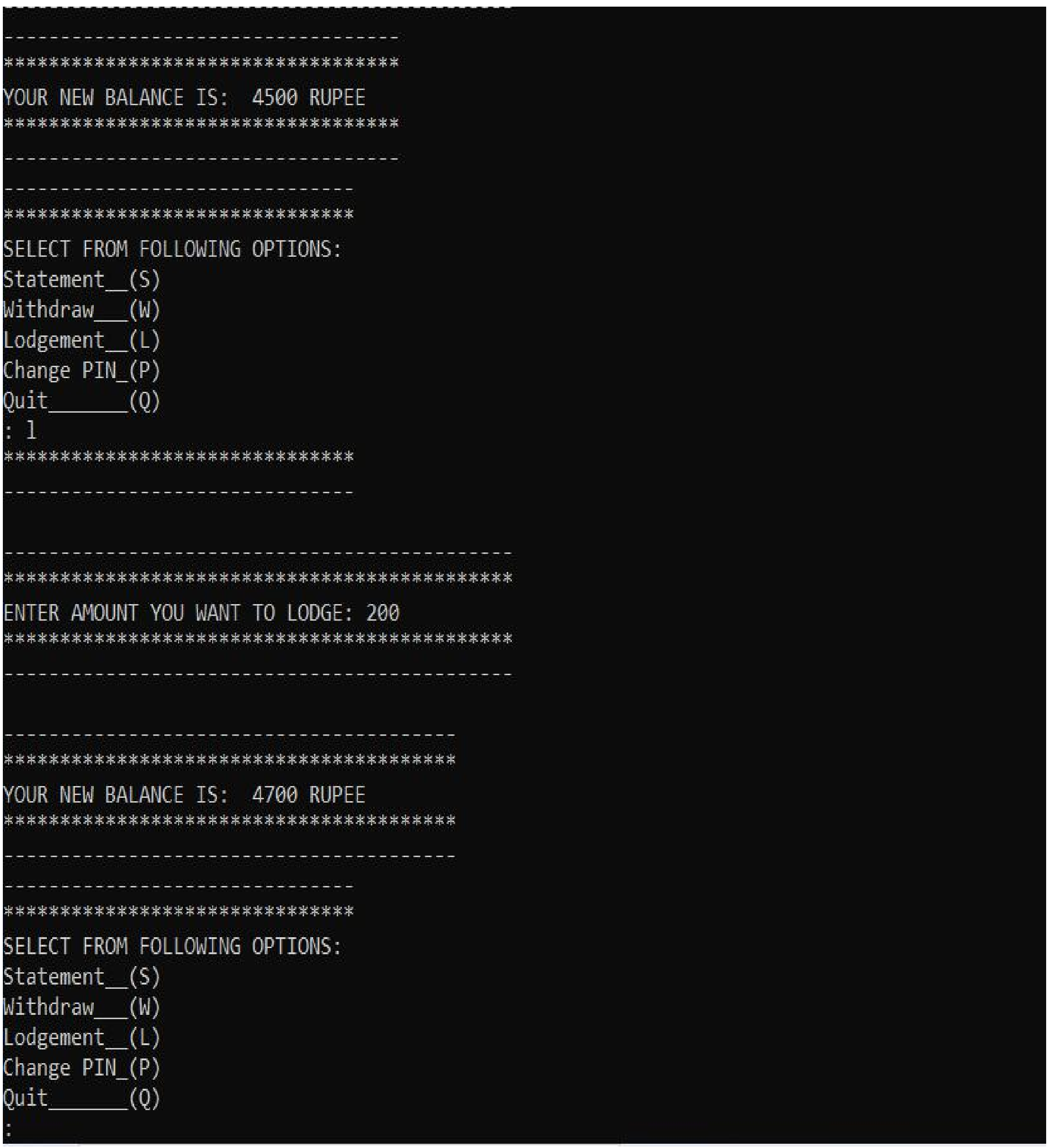
```
--------------------------
**************************
Deepika welcome to ATM
**************************
----------ATM SYSTEM-----------
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
: s
*******************************
-------------------------------
---------------------------------------------
*********************************************
Deepika YOU HAVE  5000 RUPEE ON YOUR ACCOUNT.
*********************************************
---------------------------------------------
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
:
```

# 3.WITHDRAW AMOUNT



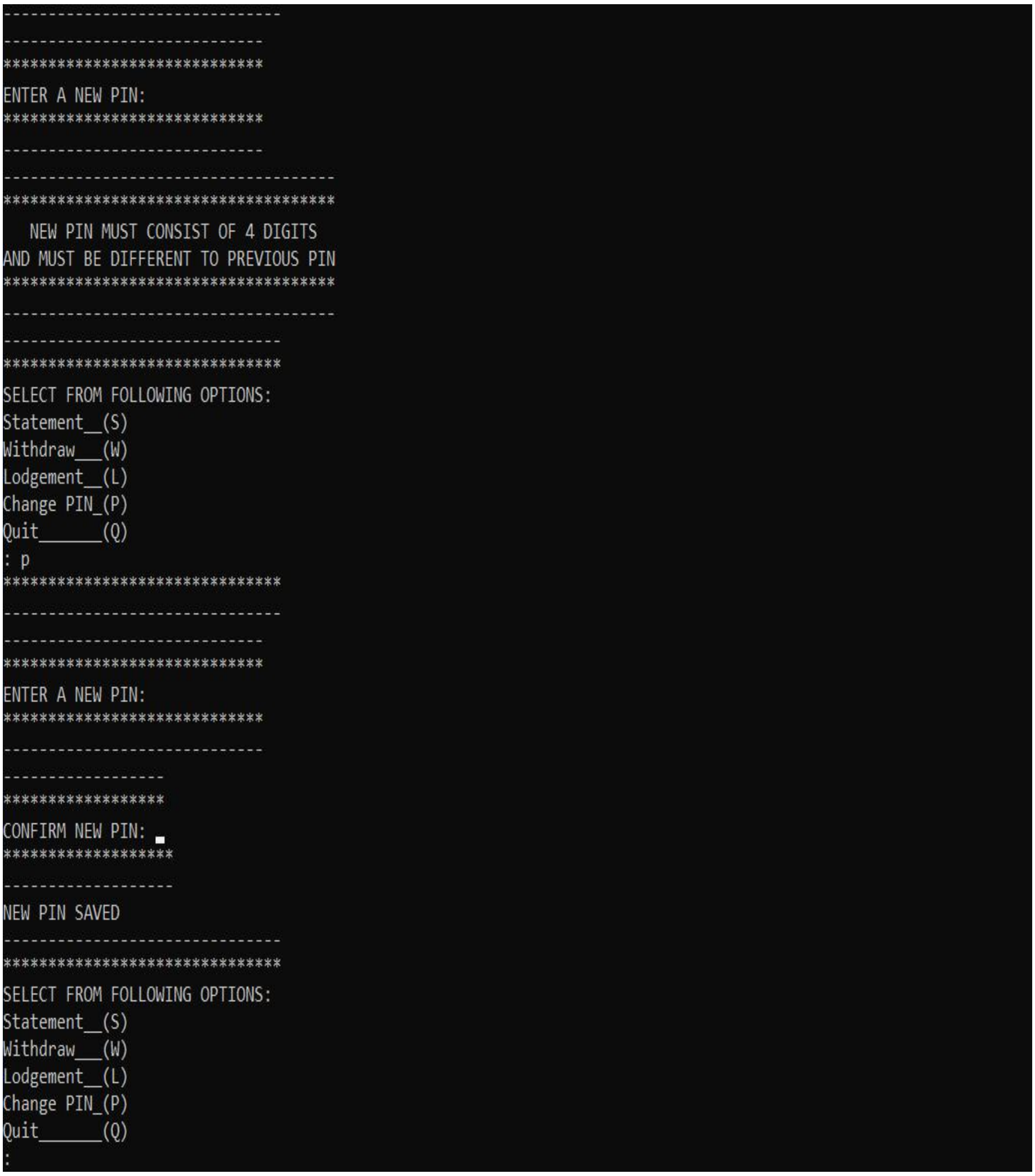
```
--------------------------------
----------------------------------------------
**********************************************
Deepika YOU HAVE  5000 RUPEE ON YOUR ACCOUNT.
**********************************************
----------------------------------------------
--------------------------------
********************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
: w
********************************
--------------------------------
----------------------------------------------
**********************************************
ENTER AMOUNT YOU WOULD LIKE TO WITHDRAW: 500
**********************************************
----------------------------------------------
------------------------------------
************************************
YOUR NEW BALANCE IS:  4500 RUPEE
************************************
------------------------------------
--------------------------------
********************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
```

# 4.LODGE AMOUNT



```
---------------------------------------------
-----------------------------------
***********************************
YOUR NEW BALANCE IS:  4500 RUPEE
***********************************
-----------------------------------
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
: l
*******************************
-------------------------------


---------------------------------------------
*********************************************
ENTER AMOUNT YOU WANT TO LODGE: 200
*********************************************
---------------------------------------------


----------------------------------------
****************************************
YOUR NEW BALANCE IS:  4700 RUPEE
****************************************
----------------------------------------
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
:
```

# 5.CHANGE PIN



```
-------------------------------
-----------------------------
*****************************
ENTER A NEW PIN:
*****************************
-----------------------------
-------------------------------------
*************************************
   NEW PIN MUST CONSIST OF 4 DIGITS
AND MUST BE DIFFERENT TO PREVIOUS PIN
*************************************
-------------------------------------
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
: p
*******************************
-------------------------------
-----------------------------
*****************************
ENTER A NEW PIN:
*****************************
-----------------------------
------------------
******************
CONFIRM NEW PIN: 
*******************
-------------------
NEW PIN SAVED
-------------------------------
*******************************
SELECT FROM FOLLOWING OPTIONS:
Statement__(S)
Withdraw___(W)
Lodgement__(L)
Change PIN_(P)
Quit_______(Q)
:
```

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