

OOP Project

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Project Title: “ATM Online Banking System”

Project Functionalities with description:

1. Registration – User can register themselves with name, username, password and phone no. Username should be unique.
2. Login – User can login through username and password they created when registering.
3. Deposit – User can deposit cash to their account after login, limit is 50k.
4. Withdraw – User can withdraw cash from their own account after login.
5. View details – User can view their complete details.
6. Transaction history – User can see their history of cash transfers with date, day & time also.
7. Transfer to another account – User can transfer money to other account, if it exists.

Concepts used:

1. Encapsulation

2. Inheritance
3. Input / Output
4. File Handling
5. Exception Handling

Project Output Screen shot in sequence of execution along with description:

1. Registering yourself with name, username, password, phone no.

```
-----WELCOME TO ATM-----
1. Register New User
2. Login for existing user
3. Exit Program
Enter Choice : 1
Enter Name :
Aarya Ahjolia
Enter Username :
arya282
Enter your secret password: (It won't show due to security reasons)

Password Length : 8.
Enter Phone Number :
9449494949
USER GENERATED SUCCESSFULLY !

Press enter to continue
█
```

2. New user with same username will not be allowed:

```
-----WELCOME TO ATM-----  
1. Register New User  
2. Login for existing user  
3. Exit Program  
Enter Choice : 1  
Enter Name :  
abc def  
Enter Username :  
arya282  
Username Already Taken !  
  
Press enter to continue  
█
```

3. If invalid login credentials:

```
-----WELCOME TO ATM-----  
1. Register New User  
2. Login for existing user  
3. Exit Program  
Enter Choice : 2  
  
Enter Username :  
ary282  
Enter your secret password: (It won't show due to security reasons)  
  
User not registered!  
  
Press enter to continue  
█
```

4. If login credentials match:

Welcome Aarya Ahjolia !

**** OPERATIONS ****

1. Deposit Money
 2. Withdraw Money
 3. View Details/Balance
 4. View Transaction History
 5. Transfer to other account
 6. Logout
- Enter Choice :

5. View details before any transaction:

Welcome Aarya Ahjolia !

**** OPERATIONS ****

1. Deposit Money
 2. Withdraw Money
 3. View Details/Balance
 4. View Transaction History
 5. Transfer to other account
 6. Logout
- Enter Choice : 3

Details :

1. Name : Aarya Ahjolia
2. Username : arya282
3. Password : *****
4. Phone No. : 9449494949
5. Balance : 0 Rs.

Press enter to continue

6. View transaction history before any operations:

```
Welcome Aarya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 4

Transaction History :
No Transaction History is there !

Press enter to continue
█
```

7. Depositing 100 Rs:

```
Welcome Aarya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 1

Enter Amount to Deposit : (Limit : 50,000)
100
Rs. 100 Deposited !

Press enter to continue
█
```

8. Withdrawing 30 Rs:

```
Welcome Aarya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 2

Enter Amount to Withdraw : (Limit : 0 to 100)
30
Rs. 30 Withdrawed !

Press enter to continue
█
```

9. View balance after 2 transactions:

```
Welcome Aarya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 3

Details :
1. Name      : Aarya Ahjolia
2. Username  : aarya282
3. Password  : *****
4. Phone No. : 9449494949
5. Balance   : 70 Rs.

Press enter to continue
█
```

10. View Transaction history after 2 transactions:

```
Welcome Aarya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 4

Transaction History :
Rs.(+100) :: 15/11/2021 13:49:45 :: Self Deposit
Rs.(-30) :: 15/11/2021 13:50:42 :: Self Withdraw

Press enter to continue
█
```

11. Creating another account:

```
-----WELCOME TO ATM-----
1. Register New User
2. Login for existing user
3. Exit Program
Enter Choice : 1
Enter Name :
Xyz patel
Enter Username :
xyz
Enter your secret password: (It won't show due to security reasons)

Password Length : 3.
Enter Phone Number :
9898989898
USER GENERATED SUCCESFULLY !

Press enter to continue
█
```

12. Transferring money from first account to new created account:

```
Welcome Aarya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 5

Enter Username of other account:
xyz
Enter Amount to Transfer : (Limit : 0 to 70)
40
Rs.(40) Transferred to xyz ( Xyz patel )

Press enter to continue
█
```

13. Checking details in xyz account:

```
Welcome Xyz patel !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 3

Details :
1. Name      : Xyz patel
2. Username  : xyz
3. Password  : ***
4. Phone No. : 9898989898
5. Balance   : 40 Rs.

Press enter to continue
█
```


14. Checking details in arya282 account:

```
Welcome Arya Ahjolia !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 3

Details :
1. Name      : Arya Ahjolia
2. Username  : arya282
3. Password  : *****
4. Phone No. : 9449494949
5. Balance   : 30 Rs.

Press enter to continue
█
```

15. Checking Transaction history in xyz account:

```
Welcome Xyz patel !

**** OPERATIONS ****
1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout
Enter Choice : 4

Transaction History :
Rs.(+40) :: 15/11/2021 13:54:41 :: Transferred from arya282 (Aarya Ahjolia)

Press enter to continue
█
```

16. Checking Transaction history in arya282 account:

Welcome Aarya Ahjolia !

**** OPERATIONS ****

1. Deposit Money
2. Withdraw Money
3. View Details/Balance
4. View Transaction History
5. Transfer to other account
6. Logout

Enter Choice : 4

Transaction History :

Rs.(+100) :: 23/11/2021 12:38:30 :: Self Deposit

Rs.(-30) :: 23/11/2021 12:38:33 :: Self Withdraw

Rs.(-40) :: 23/11/2021 12:38:44 :: Transferred to xyz (Xyz patel)

Press enter to continue

17. As file handling is used, File image of arya282 account:

arya282.txt

```
1 30
2 Aarya Ahjolia
3 arya282
4 arya2822
5 9449494949
6 TRANSACTION:1
7 Rs.(+100) :: 15/11/2021 13:49:45 :: Self Deposit
8 Rs.(-30) :: 15/11/2021 13:50:42 :: Self Withdraw
9 Rs.(-40) :: 15/11/2021 13:54:41 :: Transferred to xyz (Xyz patel)
10
```

18. As file handling is used, File image of xyz account:

```
xyz.txt
1 40
2 xyz patel
3 xyz
4 xyz
5 9898989898
6 TRANSACTION:1
7 Rs.(+40) :: 23/11/2021 12:38:44 :: Transferred from arya282 (Aarya Ahjolia)
8
```

19. Validations:

<pre>Welcome Aarya Ahjolia ! **** OPERATIONS **** 1. Deposit Money 2. Withdraw Money 3. View Details/Balance 4. View Transaction History 5. Transfer to other account 6. Logout Enter Choice : 1 Enter Amount to Deposit : (Limit : 50,000) 50001 Enter correct amount ! Press enter to continue</pre>	<pre>Welcome Aarya Ahjolia ! **** OPERATIONS **** 1. Deposit Money 2. Withdraw Money 3. View Details/Balance 4. View Transaction History 5. Transfer to other account 6. Logout Enter Choice : 2 Enter Amount to Withdraw : (Limit : 0 to 30) 31 Enter correct amount ! Press enter to continue</pre>
<pre>Welcome Aarya Ahjolia ! **** OPERATIONS **** 1. Deposit Money 2. Withdraw Money 3. View Details/Balance 4. View Transaction History 5. Transfer to other account 6. Logout Enter Choice : 1 Enter Amount to Deposit : (Limit : 50,000) -1 Enter correct amount ! Press enter to continue</pre>	<pre>Welcome Aarya Ahjolia ! **** OPERATIONS **** 1. Deposit Money 2. Withdraw Money 3. View Details/Balance 4. View Transaction History 5. Transfer to other account 6. Logout Enter Choice : 5 Enter Username of other account: xyz Enter Amount to Transfer : (Limit : 0 to 30) 0 Enter correct amount ! Press enter to continue</pre>