

# Hackathon

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2.1 Hackathon

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[1]: class BalanceException(Exception):  
    # A class only created for exceptions as defined by name  
    pass  
  
class Bank:  
    def __init__(self,holdername,holderbalance):  
        self.name=holdername  
        self.balance=holderbalance  
        self.transactions=[]  
        print(f"\nAccount Created Sucessfully For {self.name}.")  
    def HolderName(self):  
        print(f"\nAcccount Registered On The Name of {self.name}.")  
    def Balance(self):  
        print(f"\nCurrent Balance of {self.name} is Rs.{self.balance}")  
    def Deposit(self,amount):  
        # To Deposit amount  
        self.balance=self.balance+amount  
        print("Deposit Successfully...")  
        self.Balance()  
        self.add_transactions(f"Deposit : {amount}")  
    def CheckTransactions(self,amount):  
        # This is created to check amount for withdrawl and bank transfer  
        if self.balance>=amount:  
            return  
        else:  
            raise BalanceException(f"\nSorry The Account of {self.name} has  
↳balance of Rs.{self.balance}..")  
    def Withdraw(self,amount):  
        # To Withdraw money from account  
        try:  
            self.CheckTransactions(amount)  
            self.balance=self.balance-amount
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        print("\nWithdraw Successfully...")
        self.Balance()
        self.add_transactions(f"Withdraw : {amount}")
    except BalanceException as Error:
        print(f"\nWithdraw Interrupted... : {Error}")
def add_transactions(self,description):
    self.transactions.append(description)

def print_statement(self):
    for a in self.transactions:
        print(a)
def BankTransfer(self,amount,account):
    # To transfer amount from one account to another
    try:
        print("\nProcessing...")
        self.CheckTransactions(amount)
        self.Withdraw(amount)
        account.Deposit(amount)
        print("\nCompleted...")
    except BalanceException as error:
        print(f"\nTransfer Interrupted... : {error}")

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[2]: accounts={}
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[5]: run=True
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while run:
    print("\nWelcome to Hackathon Bank.\nSelect Your Desired Option\n1)Open_
↳Account\n2)Check Balance\n3)Deposit Amount\n4)Withdraw Amount\n5)Bank_
↳Transfer\n6)Exit\n7)Admin Access")
    try:
        # Ask to see which number would a person choose
        print("\nEnter Your Choice..")
        option=int(input())
    except:
        print("\nEnter An Interger..")

    if option==1:
        print("\nWelcome")
        try:
            print("\nEnter Your Desired Four Digit **** Unique Number..")
            accountnumber=int(input())
            print("\nEnter Your Name..")
            name=input().capitalize()
            print("\nDeposit Starting Amount..")
            firstam=int(input())

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        accounts[accountnumber]=Bank(name,firstam)
    except:
        print("\nPlease Follow Instructions..")
elif option==2:
    print("\nWelcome")
    try:
        print("\nEnter Your Four Digit **** Account Number..")
        accnum=int(input())
        accounts[accnum].Balance()
    except:
        print("\nPlease Follow Instructions..")
elif option==3:
    print("\nWelcome")
    try:
        print("\nEnter Your Four Digit **** Account Number..")
        accnum=int(input())
        print("\nEnter Amount To Deposit..")
        amount=int(input())
        accounts[accnum].Deposit(amount)
    except:
        print("\nPlease Follow Instructions..")
elif option==4:
    print("\nWelcome")
    try:
        print("\nEnter Your Four Digit **** Account Number..")
        accnum=int(input())
        print("\nEnter Amount To Deposit..")
        amount=int(input())
        accounts[accnum].Withdraw(amount)
    except:
        print("\nPlease Follow Instructions..")
elif option==5:
    try:
        print("\nEnter Your Four Digit **** Account Number..")
        accnum=int(input())
        print("\nEnter Benificary Four Digit **** Account Number..")
        baccnum=int(input())
        print("\nEnter Amount To Transfer..")
        amount=int(input())
        accounts[accnum].BankTransfer(amount,accounts[baccnum])
    except:
        print("\nPlease Follow Instructions..")

elif option==6:
    print("\nThanks For Using Our Services..")
    run=False
elif option==7:

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print("Default Password For Admin Is 0000..")
try:
    inp=int(input())
    if inp==0000:
        for a in accounts.values():
            a.HolderName()
            a.Balance()
            a.print_statement()
    else:
        print("Enter Correct Password..")
except:
    print("Follow Instructions...")

```

Welcome to Hackathon Bank.

Select Your Desired Option

- 1)Open Account
- 2)Check Balance
- 3)Deposit Amount
- 4)Withdraw Amount
- 5)Bank Transfer
- 6)Exit
- 7)Admin Access

Enter Your Choice..

1

Welcome

Enter Your Desired Four Digit \*\*\*\* Unique Number..

1234

Enter Your Name..

huzaifa

Deposit Starting Amount..

2000

Account Created Sucessfully For Huzaifa.

Welcome to Hackathon Bank.

Select Your Desired Option

- 1)Open Account
- 2)Check Balance

- 3)Deposit Amount
- 4)Withdraw Amount
- 5)Bank Transfer
- 6)Exit
- 7)Admin Access

Enter Your Choice..

1

Welcome

Enter Your Desired Four Digit \*\*\*\* Unique Number..

2345

Enter Your Name..

zorain

Deposit Starting Amount..

1500

Account Created Sucessfully For Zorain.

Welcome to Hackathon Bank.

Select Your Desired Option

- 1)Open Account
- 2)Check Balance
- 3)Deposit Amount
- 4)Withdraw Amount
- 5)Bank Transfer
- 6)Exit
- 7)Admin Access

Enter Your Choice..

3

Welcome

Enter Your Four Digit \*\*\*\* Account Number..

1234

Enter Amount To Deposit..

1500

Deposit Successfully...

Current Balance of Huzaifa is Rs.3500

Welcome to Hackathon Bank.

Select Your Desired Option

- 1)Open Account
- 2)Check Balance
- 3)Deposit Amount
- 4)Withdraw Amount
- 5)Bank Transfer
- 6)Exit
- 7)Admin Access

Enter Your Choice..

4

Welcome

Enter Your Four Digit \*\*\*\* Account Number..

1234

Enter Amount To Deposit..

500

Withdraw Successfully...

Current Balance of Huzaifa is Rs.3000

Welcome to Hackathon Bank.

Select Your Desired Option

- 1)Open Account
- 2)Check Balance
- 3)Deposit Amount
- 4)Withdraw Amount
- 5)Bank Transfer
- 6)Exit
- 7)Admin Access

Enter Your Choice..

7

Default Password For Admin Is 0000..

0000

Account Registered On The Name of Huzaifa.

Current Balance of Huzaifa is Rs.3000

Deposit : 1500

Withdraw : 500

Account Registered On The Name of Zorain.

Current Balance of Zorain is Rs.1500

Welcome to Hackathon Bank.

Select Your Desired Option

1)Open Account

2)Check Balance

3)Deposit Amount

4)Withdraw Amount

5)Bank Transfer

6)Exit

7)Admin Access

Enter Your Choice..

6

Thanks For Using Our Services..