**Advanced Java**

|  |  |
| --- | --- |
| Program No | 2 |
| Roll No | 1262 |
| Title of Program | Bank Account Statement |
| Description | Design a class bank account to represent customers in a bank.  provide facilities such as withdraw, deposit and transfer funds  for the account. Assume appropriate data members. design a test class  to test the functionality. Minimum balance in account should be 500 rupees |

**Source Code:**

class BankAccount{

//Instance variable

private long accno;

private String acName;

private double balance;

BankAccount(){

this.accno=0;

this.acName=" ";

this.balance=0.0;

}

BankAccount(long accno,String acName,double balance){

this.accno=accno;

this.acName=acName;

this.balance=balance;

}

//Access and mutators

public void setAccno(long accno){

this.accno=accno;

}

public void setAccName(String acName){

this.acName=acName;

}

public void setBalance(double balance){

this.balance=balance;

}

public long getAccno(){

return this.accno;

}

public String getAcname(){

return this.acName;

}

public double getBalance(){

return this.balance;

}

void deposit(double amt){

this.balance=this.balance+amt;

}

boolean withdraw(double amt){

if (this.balance-amt>=500){

this.balance=this.balance-amt;

return true;

}

else{

return false;

}

}

boolean transfer(BankAccount target,double amt){

if(this.withdraw(amt)){

target.deposit(amt);

return true;

}

else{

return false;

}

}

}

class AccountTest{

public static void main(String[] args){

//deposit example

BankAccount b1=new BankAccount();

System.out.println("before:"+b1.getBalance());

b1.deposit(1000);

System.out.println("After:"+b1.getBalance());

BankAccount b2=new BankAccount(101,"harsh",95000);

System.out.println("before:"+b2.getBalance());

b2.deposit(1000);

System.out.println("After:"+b2.getBalance());

//withdrawl example

BankAccount b3=new BankAccount(10,"harsh1",5000);

System.out.println("before:"+b3.getBalance());

if (b3.withdraw(1000)){

System.out.println("Withdrawl successful");

}

else{

System.out.println("Insufficient funds");

}

System.out.println("After:"+b3.getBalance());

//transfer example

System.out.println("Acc No:"+b3.getAccno()+

" Name:"+b3.getAcname()+" Balance:"+b3.getBalance());

System.out.println("Acc No:"+b2.getAccno()+

" Name:"+b2.getAcname()+" Balance:"+b2.getBalance());

if (b3.transfer(b2,5000)){

System.out.println("transfer successfull");

}

else{

System.out.println("Insufficient funds");

}

System.out.println("Acc No:"+b3.getAccno()+

" Name:"+b3.getAcname()+" Balance:"+b3.getBalance());

System.out.println("Acc No:"+b2.getAccno()+

" Name:"+b2.getAcname()+" Balance:"+b2.getBalance());

System.out.println("Acc No:"+b3.getAccno()+

" Name:"+b3.getAcname()+" Balance:"+b3.getBalance());

System.out.println("Acc No:"+b2.getAccno()+

" Name:"+b2.getAcname()+" Balance:"+b2.getBalance());

if (b3.transfer(b2,100)){

System.out.println("transfer successfull");

}

else{

System.out.println("Insufficient funds");

}

System.out.println("Acc No:"+b3.getAccno()+

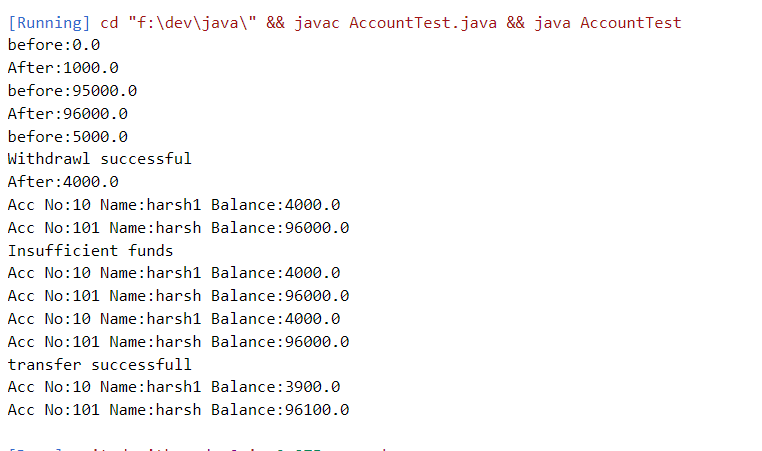
" Name:"+b3.getAcname()+" Balance:"+b3.getBalance());

System.out.println("Acc No:"+b2.getAccno()+

" Name:"+b2.getAcname()+" Balance:"+b2.getBalance());

}

}

**Output: **