***Bank.java***

public interface Bank extends java.rmi.Remote

{

 public String c\_name(String name) throws java.rmi.RemoteException;

 public long account\_no(long acc\_no) throws java.rmi.RemoteException;

 public long balance(long amount) throws java.rmi.RemoteException;

 public long view(int amount)throws java.rmi.RemoteException;

 public long deposit(int amount)throws java.rmi.RemoteException;

 public long withdraw(int amount) throws java.rmi.RemoteException;

 }

***BankImpl.java***

public class BankImpl extends java.rmi.server.UnicastRemoteObject implements Bank

{

 public BankImpl() throws java.rmi.RemoteException

 {

 super();

 }

 public long view(int amount) throws java.rmi.RemoteException

 {

 System.out.println("\n\t\t\tCustomer Detail");

 return amount;

 }

 public long deposit(int amount)throws java.rmi.RemoteException

 {

 System.out.println("\n\t\t\tAmount deposited");

 return amount;

 }

 public long withdraw(int amount) throws java.rmi.RemoteException

 {

 System.out.println("\n\t\t\tAmount Withdrawn");

 return amount;

 }

 public String c\_name(String name) throws java.rmi.RemoteException

 {

 System.out.println("\nThe name of the customer is:" + name);

 return name;

 }

 public long account\_no(long acc\_no) throws java.rmi.RemoteException

 {

 System.out.println("\nThe Account Number is:" + acc\_no);

 return acc\_no;

 }

 public long balance(long amount) throws java.rmi.RemoteException

 {

 System.out.println("\nThe Current Balance is:" + amount);

 return amount;

 }

}

***BankServer.java***

import java.rmi.Naming;

public class BankServer

{

 public BankServer()

 {

 try

 {

 Bank c = new BankImpl();

 Naming.rebind("rmi://localhost:1099/BankService", c);

 }

 catch (Exception e)

 {

 System.out.println("Trouble: " + e);

 }

 }

 public static void main(String args[])

 {

 new BankServer();

 }

}

***BankClient.java***

import java.io.\*;

import java.rmi.Naming;

import java.rmi.RemoteException;

import java.net.MalformedURLException;

import java.rmi.NotBoundException;

public class BankClient

{

 public static void main(String[] args)

 {

String name="default",namelist[]={"vinodh","parthi","karthi", "mei","bala","kasi"};

int acc\_no=0,acc\_nolist[]={1,2,3,4,5,6},amount=0,newamount[]={0,0,0,0,0,0},

amountlist[]={0,0,0,0,0,0},new\_amount, option,sub\_option,con=0,i,count=1;

 DataInputStream in=new DataInputStream(System.in);

 try

 {

 do

 {

Bank c = (Bank)Naming.lookup("rmi: //localhost/BankService");

 if (count == 1)

 {

 System.out.println("Enter the Account no:");

 acc\_no = Integer.parseInt(in.readLine());

 count = 0;

 if (acc\_no == 1)

 {

 name = namelist[0];

 acc\_no = acc\_nolist[0];

 amount = amountlist[0] + newamount[0];

 }

 else if (acc\_no == 2)

 {

 name = namelist[1];

 acc\_no = acc\_nolist[1];

 amount = amountlist[1]+newamount[1];

 }

 else if (acc\_no == 3)

 {

 name = namelist[2];

 acc\_no = acc\_nolist[2];

 amount = amountlist[2]+newamount[2];

 }

 else if (acc\_no == 4)

 {

 name = namelist[3];

 acc\_no = acc\_nolist[3];

 amount = amountlist[3]+newamount[3];

 }

 else if (acc\_no == 5)

 {

 name = namelist[4];

 acc\_no = acc\_nolist[4];

 amount = amountlist[4]+newamount[4];

 }

 else if (acc\_no == 6)

 {

 name = namelist[5];

 acc\_no = acc\_nolist[5];

 amount = amountlist[5]+newamount[5];

 }

 else

 {

System.out.println("Your entered account number is wrong:");

 }

 }

 System.out.println("\nMenu list:");

 System.out.print("\n\t1. To change the account no\n\n\t2. View Statement\n\n\t3. Deposit Money\n\n\t4. Withdraw Money");

System.out.print("\n\nEnter your Input as 1 or 2 or 3 or 4 only:");

 option = Integer.parseInt(in.readLine());

 switch (option)

 {

 case 1:

 {

 if (acc\_no == 1)

 {

 newamount[0] = amount;

 }

 else if (acc\_no == 2)

 {

 newamount[1]=amount;

 }

 else if (acc\_no == 3)

 {

 newamount[2]=amount;

 }

 else if (acc\_no == 4)

 {

 newamount[3]=amount;

 }

 else if (acc\_no == 5)

 {

 newamount[4]=amount;

 }

 else if (acc\_no == 6)

 {

 newamount[5]=amount;

 }

 count = 1;

 break;

 }

 case 2:

 {

 c.view(amount);

 c.c\_name(name);

 c.account\_no(acc\_no);

 c.balance(amount);

 break;

 }

 case 3:

 {

System.out.print("\nEnter the amount to be deposited:");

 new\_amount = Integer.parseInt(in.readLine());

 c.deposit(amount);

 System.out.println("\nYour amount has been deposited successfully");

 amount=amount+new\_amount;

 c.c\_name(name);

 c.account\_no(acc\_no);

 c.balance(amount);

 break;

 }

 case 4:

 {

 System.out.print("\nEnter the amount to be Withdrawn:");

new\_amount = Integer.parseInt(in. readLine());

 if(new\_amount<=amount)

 {

System.out.println("\nYour amount has been withdrawn successfully");

 amount=amount-new\_amount;

 c.withdraw(amount);

 c.c\_name(name);

 c.account\_no(acc\_no);

 c.balance(amount);

 }

 else

 {

System.out.println("\nInsufficient balance to withdrawn that amount from your account");

 }

 break;

 }

 default:

 {

System.out.println("Your entered option is wrong:");

 break;

 }

 }

 System.out.print("\n\nTo go back to main menu then press 1:");

 con = Integer.parseInt(in.readLine());

 }

 while (con== 1);

 }

 catch (Exception e)

 {

 System.out.println("Error");

 }

 }

}

******

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***Student.java***

public interface Student extends java.rmi.Remote

{

 public String s\_name(String name) throws java.rmi.RemoteException;

 public long reg\_no(long reg\_no) throws java.rmi.RemoteException;

 public long marks(long m1, long m2, long m3) throws java.rmi.RemoteException;

 public long total(long tot)throws java.rmi.RemoteException;

 public long average(long average)throws java.rmi.RemoteException;

}

***StudentImpl.java***

public class StudentImpl extends java.rmi.server.UnicastRemoteObject implements Student

{

 public StudentImpl() throws java.rmi.RemoteException

 {

 super();

 }

 public String s\_name(String name) throws java.rmi.RemoteException

 {

 System.out.println("\t\t\tStudent Detail");

 System.out.println("\nName:" + name);

 return name;

 }

 public long reg\_no(long reg\_no) throws java.rmi.RemoteException

 {

 System.out.println("\nReg.NO:" + reg\_no);

 return reg\_no;

 }

 public long marks(long m1,long m2,long m3) throws java.rmi.RemoteException

 {

 System.out.println("\nMark1:" +m1);

 System.out.println("\nMark2:" +m2);

 System.out.println("\nMark3:" +m3);

 return (m1+m2+m3);

 }

 public long total(long total) throws java.rmi.RemoteException

 {

 System.out.println("\nThe total of 3 marks is:"+total);

 return total;

 }

 public long average(long average)throws java.rmi.RemoteException

 {

 System.out.println("\nThe average of 3 marks is:"+average);

 return average;

 }

}

***StudentServer.java***

import java.rmi.Naming;

public class StudentServer

{

 public StudentServer()

 {

 try

 {

 Student s = new StudentImpl();

 Naming.rebind("rmi://localhost:1099/BankService", s);

 }

 catch (Exception e)

 {

 System.out.println("Trouble: " + e);

 }

 }

 public static void main(String args[])

 {

 new StudentServer();

 }

}

***StudentClient.java***

import java.io.\*;

import java.rmi.Naming;

import java.rmi.RemoteException;

import java.net.MalformedURLException;

import java.rmi.NotBoundException;

public class StudentClient

{

 public static void main(String[] args)

 {

 String name="default",namelist{"raju","ramu","dilip","siva","rajiv","anbu"}; int reg\_no = 0, reg\_nolist[] ={ 1, 2, 3, 4, 5, 6 };

 int m1list[] ={ 50, 60, 50, 60, 50, 60 }, m2list[] ={ 50, 60, 50, 60, 50, 60 },m1=0,m2=0, m3=0;

 int m3list[] ={ 50, 60, 50, 60, 50, 60}, option, sub\_option, con = 0, i, count = 1,total=0, average=0;

 DataInputStream in=new DataInputStream(System.in);

 try

 {

 do

 {

 Student s = (Student)Naming.lookup("rmi://localhost/BankService");

 if (count == 1)

 {

 System.out.println("Enter the Register no:");

 reg\_no = Integer.parseInt(in.readLine());

 count = 0;

 if (reg\_no == 1)

 {

 name = namelist[0];

 reg\_no = reg\_nolist[0];

 m1 = m1list[0];

 m2 = m2list[0];

 m3 = m3list[0];

 }

 else if (reg\_no == 2)

 {

 name = namelist[1];

 reg\_no = reg\_nolist[1];

 m1 = m1list[1];

 m2 = m2list[1];

 m3 = m3list[1];

 }

 else if (reg\_no == 3)

 {

 name = namelist[2];

 reg\_no = reg\_nolist[2];

 m1 = m1list[2];

 m2 = m2list[2];

 m3 = m3list[2];

 }

 else if (reg\_no == 4)

 {

 name = namelist[3];

 reg\_no = reg\_nolist[3];

 m1 = m1list[3];

 m2 = m2list[3];

 m3 = m3list[3];

 }

 else if (reg\_no == 5)

 {

 name = namelist[4];

 reg\_no = reg\_nolist[4];

 m1 = m1list[4];

 m2 = m2list[4];

 m3 = m3list[4];

 }

 else if (reg\_no == 6)

 {

 name = namelist[5];

 reg\_no = reg\_nolist[5];

 m1 = m1list[5];

 m2 = m2list[5];

 m3 = m3list[5];

 }

 else

 {

 System.out.println("Your entered register number is wrong:");

 }

 }

 System.out.println("\nMenu list:");

 System.out.print("\n\t1. To change the register no\n\n\t2. View Details\n\n\t3. Total\n\n\t4. Average");

 System.out.print("\n\nEnter your Input as 1 or 2 or 3 or 4 only:");

 option = Integer.parseInt(in.readLine());

 switch (option)

 {

 case 1:

 {

 count = 1;

 break;

 }

 case 2:

 {

 s.s\_name(name);

 s.reg\_no(reg\_no);

 s.marks(m1,m2,m3);

 break;

 }

 case 3:

 {

 System.out.print("\nThe Total of Three Marks is:");

 total = m1 + m2 + m3;

 System.out.print("" + total);

 s.total(total);

 break;

 }

 case 4:

 {

 System.out.print("\nThe average of Three Marks is:");

 average = total / 3;

 System.out.print("" + average);

 s.average(average);

 break;

 }

 default:

 {

 System.out.println("Your entered option is wrong:");

 break;

 }

 }

 System.out.print("\n\nTo go back to main menu then press 1:");

 con = Integer.parseInt(in.readLine());

 }

 while (con== 1);

 }

 catch (Exception e)

 {

 System.out.println("Error");

 }

 }

}





