abstract class RRPaymentServices{

double balance;

int customerId;

RRPaymentServices(double balance, int customerId){

this.balance=balance;

this.customerId=customerId;

}

public double getBalance(double balance) {

return balance;

}

public int getCustomerId() {

return customerId;

}

abstract void payBill(double Amount);

}

class ShoppingPayment extends RRPaymentServices{

static String PaymentID="S";

static int counter=1000;

ShoppingPayment(double balance,int customerId){

super(balance, customerId);

}

static String getPaymentID(){

return PaymentID + (++counter);

}

void payBill(double Amount) {

if (Amount==balance){

System.out.println("here you suessfully made the payment of RS. "+ Amount + " Details is:");

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("Customer ID: "+ customerId);

System.out.println("Payment ID: "+ getPaymentID());

System.out.println("previous due: "+ balance);

System.out.println("remaning due: "+ 0);

}

else{

System.out.println("InProper Amount!!, Please try agian.");

}

};

}

class CreditCardPayment extends RRPaymentServices{

static int counter=4000;

static String PaymentID="C";

double cashBack,balanceDue;

CreditCardPayment(double balance, int customerId){

super(balance, customerId);

counter++;

}

static String getPaymentID() {

return PaymentID + counter;

}

public double getCashBack() {

return cashBack;

}

public double getBalanceDue() {

return balanceDue;

}

void payBill(double Amount) {

if(Amount>=balance){

cashBack=Amount-balance;

balanceDue=0;

}

else if(Amount==0){

cashBack=0;

balanceDue=balance;

}

else{

cashBack=0;

balanceDue=balance-Amount;

}

System.out.println("here you suessfully made the payment of RS. "+ Amount + " Details is:");

System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.out.println("Customer ID: "+ customerId);

System.out.println("Payment ID: "+ getPaymentID());

System.out.println("previous due: "+ balance);

System.out.println("remaning due: "+ balanceDue);

System.out.println("CashBack: "+ cashBack);

}

}

public class AbtractClassesAndMethods {

public static void main(String[] args) {

CreditCardPayment s=new CreditCardPayment(10000.23d,5001);

s.payBill(15000.0d);

System.out.println();

CreditCardPayment s1=new CreditCardPayment(10000.23, 50002);

s1.payBill(0);

System.out.println();

ShoppingPayment c=new ShoppingPayment(5000d, 54101);

c.payBill(6000);

System.out.println();

ShoppingPayment c1=new ShoppingPayment(5000d, 54102);

c1.payBill(5000d);

}

}

/\* Output:

PS C:\Users\bhoir\OneDrive\Desktop\Info\_>javac AbtractClassesAndMethods.java

PS C:\Users\bhoir\OneDrive\Desktop\Info\_>java AbtractClassesAndMethods

here you suessfully made the payment of RS. 15000.0 Details is:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Customer ID: 5001

Payment ID: C4001

previous due: 10000.23

remaning due: 0.0

CashBack: 4999.77

here you suessfully made the payment of RS. 0.0 Details is:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Customer ID: 50002

Payment ID: C4002

previous due: 10000.23

remaning due: 10000.23

CashBack: 0.0

InProper Amount!!, Please try agian.

here you suessfully made the payment of RS. 5000.0 Details is:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Customer ID: 54102

Payment ID: S1001

previous due: 5000.0

remaning due: 0

\*/