USN: 1BM19CS143

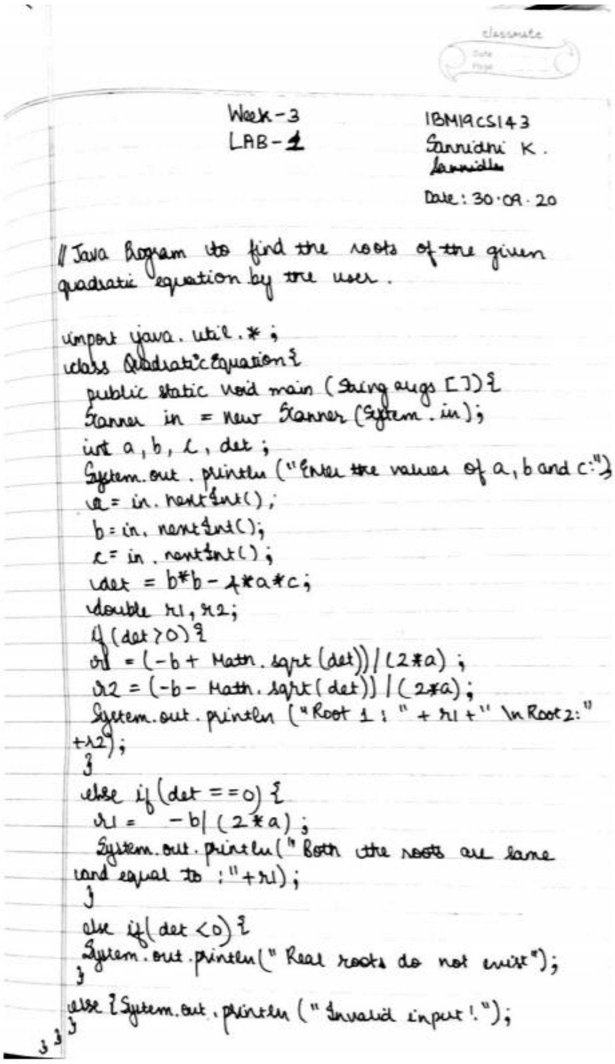
NAME: Sannidhi Kasturi

Lab Record

LAB PROGRAM 1:

Develop a Java program that prints all real solutions to the quadratic equation ax^2 +bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b^2 -4ac is negative, display a message stating that there are no real solutions.

Handwritten Solution:



Week-3
LAB-1

1BM19CS143
Sannidhi K.
Sannidhi

Date : 30·09·20

```
// Java Program to find the roots of the given
quadratic equation by the user.

import java.util.*;
class QuadraticEquation{
  public static void main (String args [ ]){
  Scanner in = new Scanner (System.in);
  int a, b, c, det ;
  System.out.println ("Enter the values of a, b and c:")
  a= in.nextInt();
   b= in.nextInt();
   c= in.nextInt();
   det = b*b - 4*a*c;
  double r1, r2;
   if (det >0) {
   r1 = (-b + Math.sqrt (det))/(2*a) ;
   r2 = (-b - Math.sqrt (det))/(2*a);
   System.out.println ("Root 1 : " + r1 + " \n Root 2: "
 +r2);
  }
  else if (det ==0) {
   r1 =   -b/ (2*a) ;
   System.out.println(" Both the roots are same
 and equal to :"+r1);
  }
  else if(det <0) {
  System.out.println(" Real roots do not exist");
 }
 else {System.out.println (" Invalid input !.");
 }
} }
```

Scanned with CamScanner

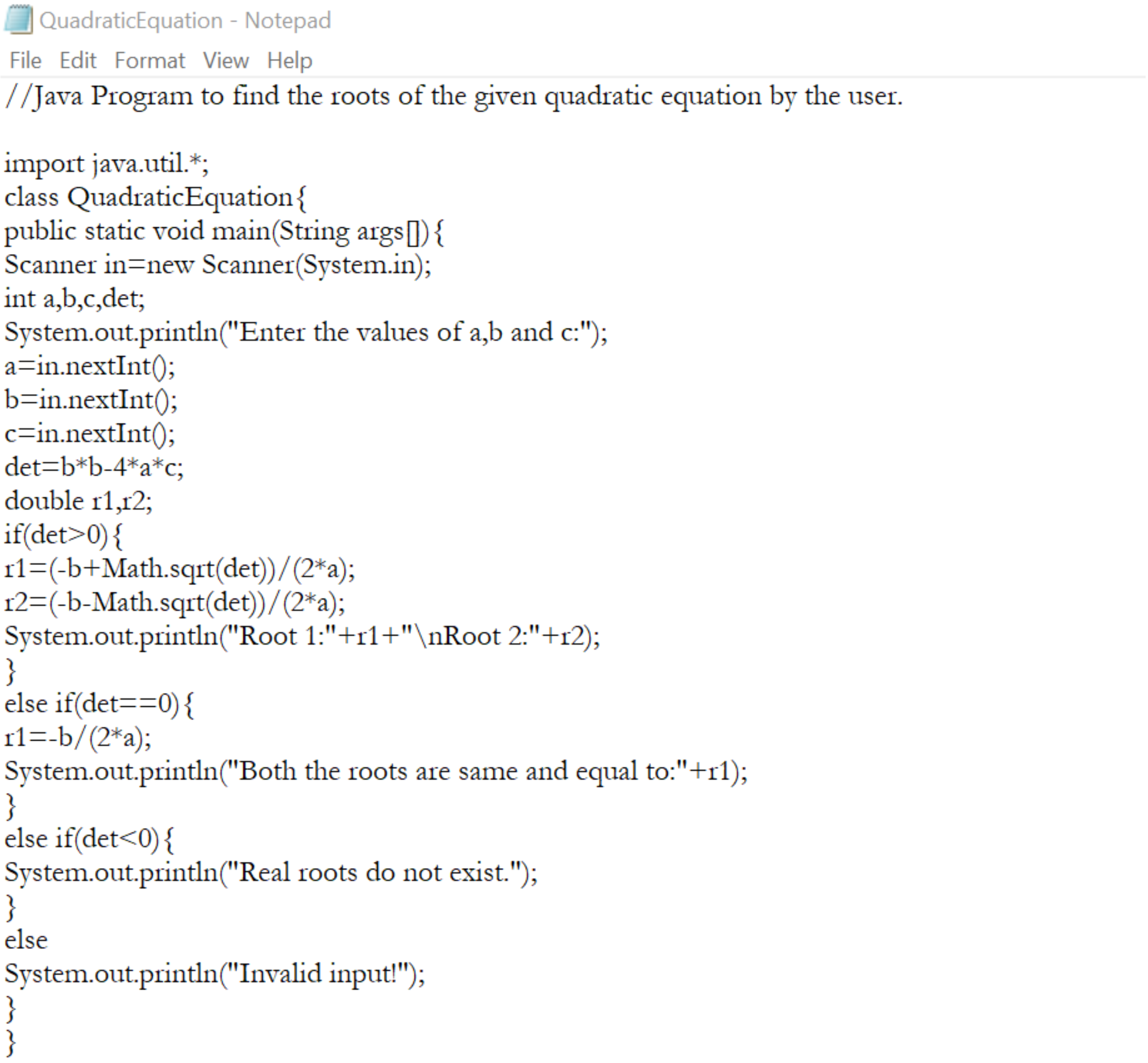
Algorithm :

```
1. Start.
2. double a, b, c , root1 , root 2, dt .
3. input a , b, c.
4. det = b*b - 4 * a * c .
5. if (det > 0 )
      root 1 = (-b + √(b*b-4*a*c) )/(2 *a) .
      root 2 = (-b - √(b*b-4*a*c) / (2 *a)
      print root 1 , root 2 .

   else if (det== 0)
      root 1 = -b/(2*a) .
      print root 1 .

   else if( det <0)
      print "Real Roots do not exist".
   else
      print " Invalid Input" .
6. End .
```

Sample Output.

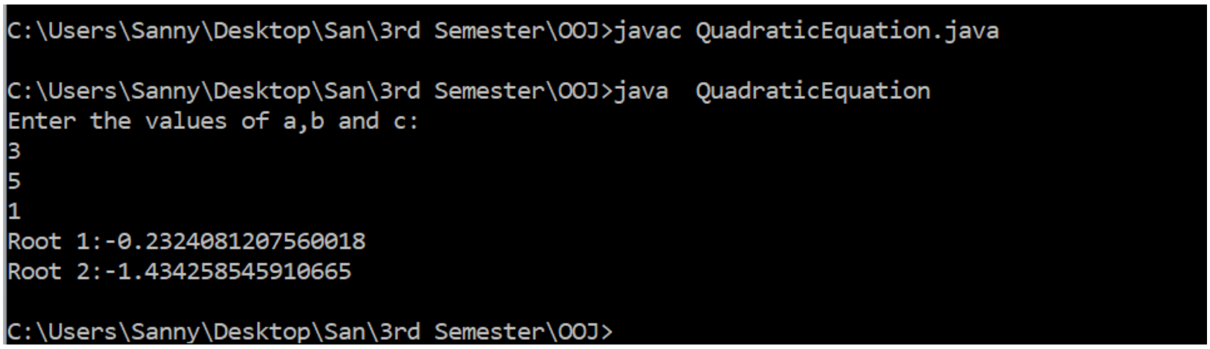
```
Enter the values of a,b, and c :
2
5
1
Root 1 : - 0.21922359
Root 2 : -2. 280776406
```

Program File:



```
//Java Program to find the roots of the given quadratic equation by the user.

import java.util.*;
class QuadraticEquation{
public static void main(String args[]){
Scanner in=new Scanner(System.in);
int a,b,c,det;
System.out.println("Enter the values of a,b and c:");
a=in.nextInt();
b=in.nextInt();
c=in.nextInt();
det=b*b-4*a*c;
double r1,r2;
if(det>0){
r1=(-b+Math.sqrt(det))/(2*a);
r2=(-b-Math.sqrt(det))/(2*a);
System.out.println("Root 1:"+r1+"\nRoot 2:"+r2);
}
else if(det==0){
r1=-b/(2*a);
System.out.println("Both the roots are same and equal to:"+r1);
}
else if(det<0){
System.out.println("Real roots do not exist.");
}
else
System.out.println("Invalid input!");
}
}
```

Output:

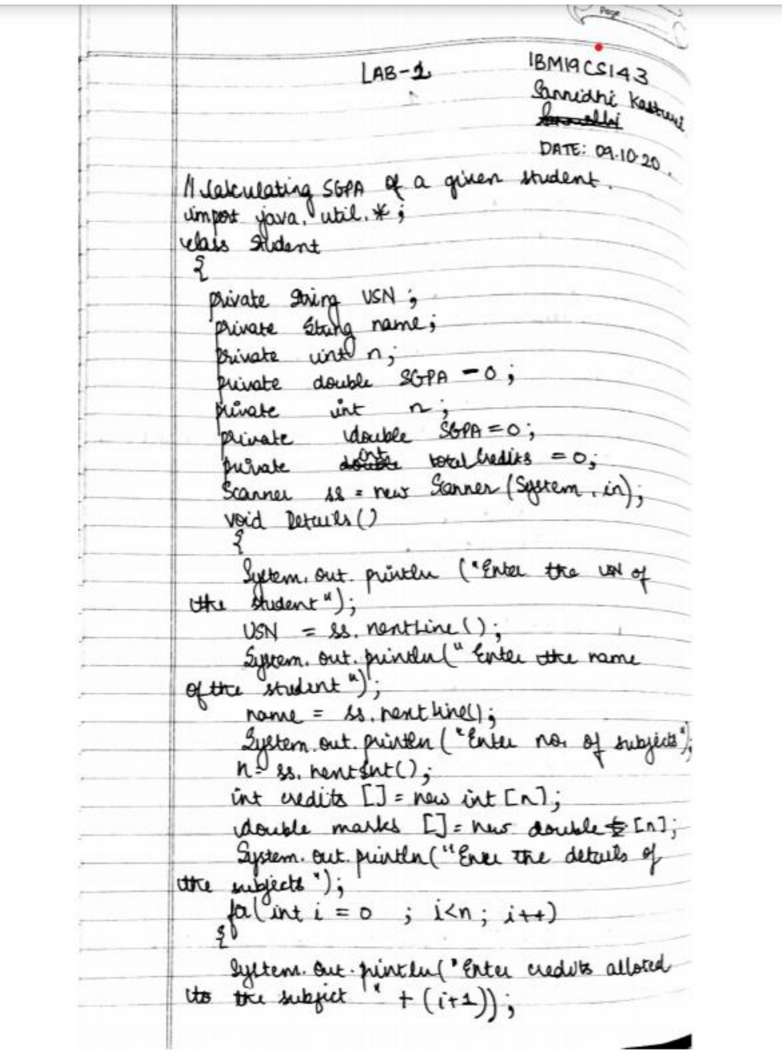


```
C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>javac QuadraticEquation.java

C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>java  QuadraticEquation
Enter the values of a,b and c:
3
5
1
Root 1:-0.2324081207560018
Root 2:-1.434258545910665

C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>
```

LAB PROGRAM 2:

Develop a Java program to create a class **Student** with members **usn, name**, **an array credits** and **an array marks**. Include methods to accept and display details and a method to calculate SGPA of a student.

Handwritten Solution:



LAB-1

1BM19CS143
Sannidhi Kasturi

DATE: 09.10.20.

```
// calculating SGPA of a given student.
import java.util.*;
class Student
 {
   private String USN ;
   private String name;
   private int n;
   private double SGPA -0 ;
   private   int   n;
   private    double  SGPA =0;
   private    ~~double~~ int  total credits  =0;
   Scanner   ss = new Scanner (System.in);
   void Details()
    {
     System.out.println ("Enter the USN of
the student");
     USN  = ss.nextLine();
     System.out.println(" Enter the name
of the student");
     name = ss.nextLine();
     System.out.println ("Enter no. of subjects");
    n= ss.nextInt();
    int credits [] = new int [n];
    double marks [] = new double [n];
     System.out.println("Enter the details of
the subjects");
    for(int i = 0  ; i<n; i++)
  {
    System.out.println("Enter credits alloted
to the subject " + (i+1));
credits [i] = ss. nextInt();
 System.out.printen(" Enter marks in the
subject "+ (i+1)) ;
 marks [i] = ss. nextInt() ;
calculate (credits [i], marks [i], i) ;
}

}
void calculate (int credit , double mark , int j)
 {
  total credits = totalCredits + credit ;
 if (mark >=90 && mark <=100)
 SGPA = SGPA + (10 * credit);
 else if( mark >=80 && mark <=89)
  SGPA = SGPA + (9 * credit);
  else if( mark >=70 && mark <= 79)
  SGPA = SGPA + (8 * credit);
  else if (mark >= 60 && mark <= 69)
  SGPA = SGPA + (7 * credit) ;
 else if ( mark >=50 && mark <= 59)
  SGPA = SGPA + (6 * credit);
  else if (mark >=40 && mark <=49)
   SGPA = SGPA + ( 5 * credit );
   else
   System.out.println( "Failed in subject "+(j+1));
}
void Display()
 {
   System.out. printen ("Details of the Student ");
   System. out. println ("Name : "+ name);
   System. out . println( "USN : "+ USN);
   System. out. printen( "SGPA of student"
+ (SGPA / totalCredits));
 }
 }
```

```
class Main
 {
  public static void main (String args[])
 {
  Student s1   = new Student ();
  s1. Details ();
  s1. Display();
 }
}
```

Algorithm:

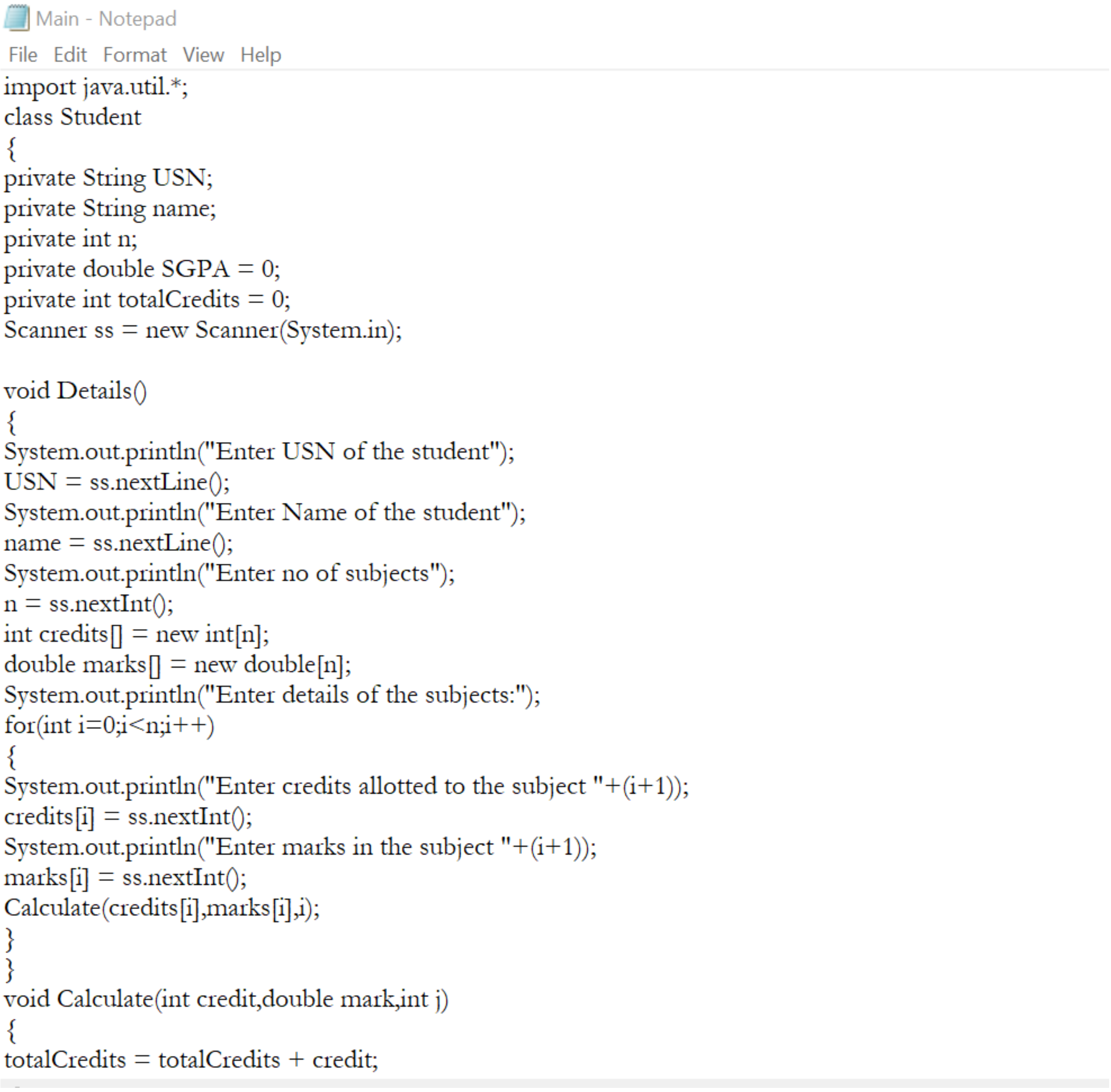
```
1. Start .
2. Input USN, Name , no. of subjects and the
   details of the subjects ie. credits and marks
   as USN, name, n , credits[i], marks[i] .
3. Set totalCredits = totalCredits + Credit .
4. Set SGPA = SGPA + (credit * number) where
   the number = 10,9,8,6,7, 5 acc. to marks
5. ~~if number = 5~~
5. Else print "Failed in Subject" .
6 Print "Details of the Student", name , USN
   and the calculated SGPA of the student.
7. End,
```

Sample Output :

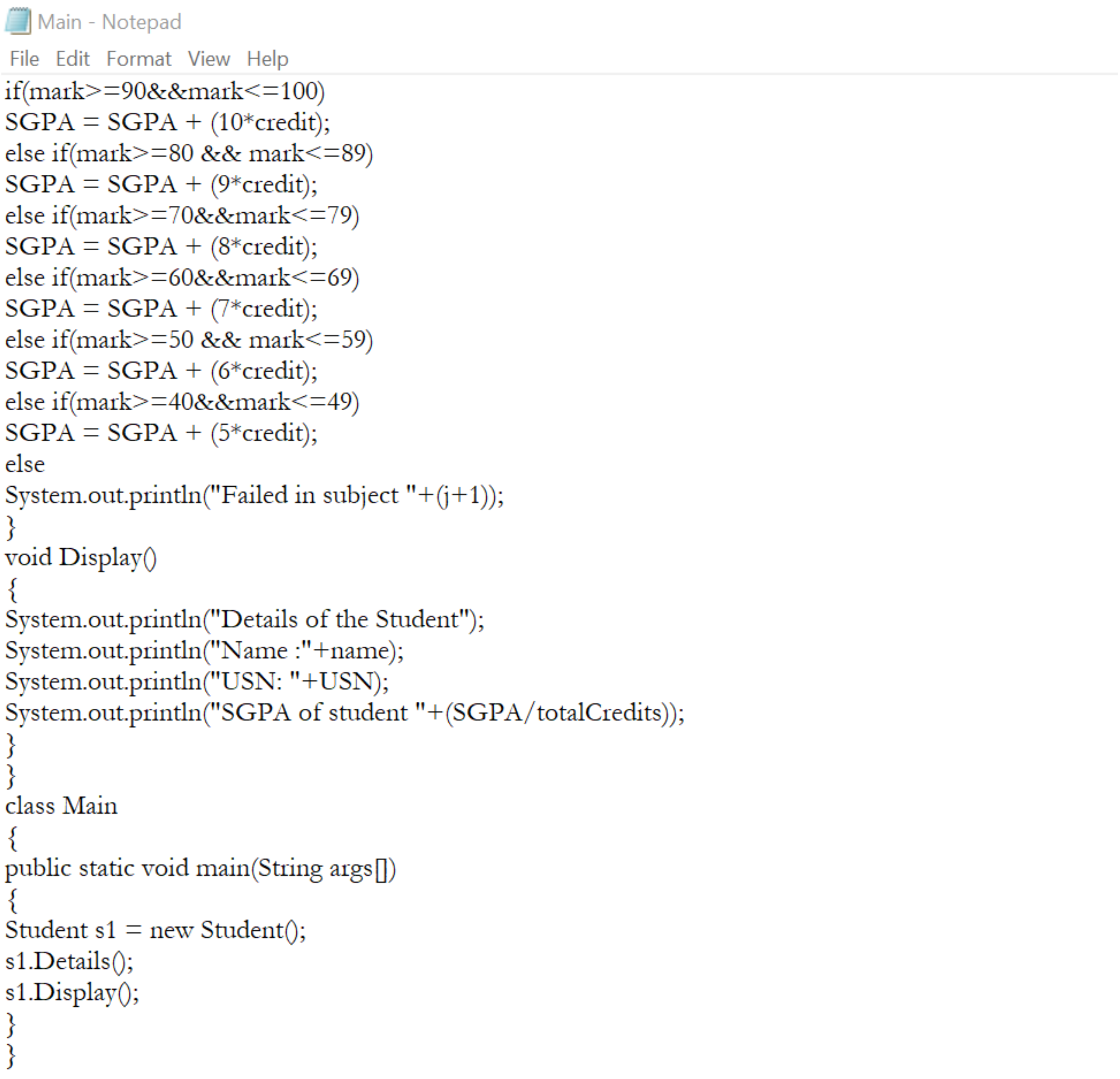
```
Enter USN of the student.
1BM19CS143
Enter name of the student.
Sannidhi
Enter no. of subjects.
2.
Enter details of the subjects:
Enter credits alloted to subject 1
4.
Enter marks in subject 1.
90
Enter credits alloted in subject 2
4
Enter marks in subject 2
100
Details of the student.
Name: Sannidhi
USN: 1BM19CS143
SGPA of student :10.0.
```

Scanned with CamScanner

Program File:

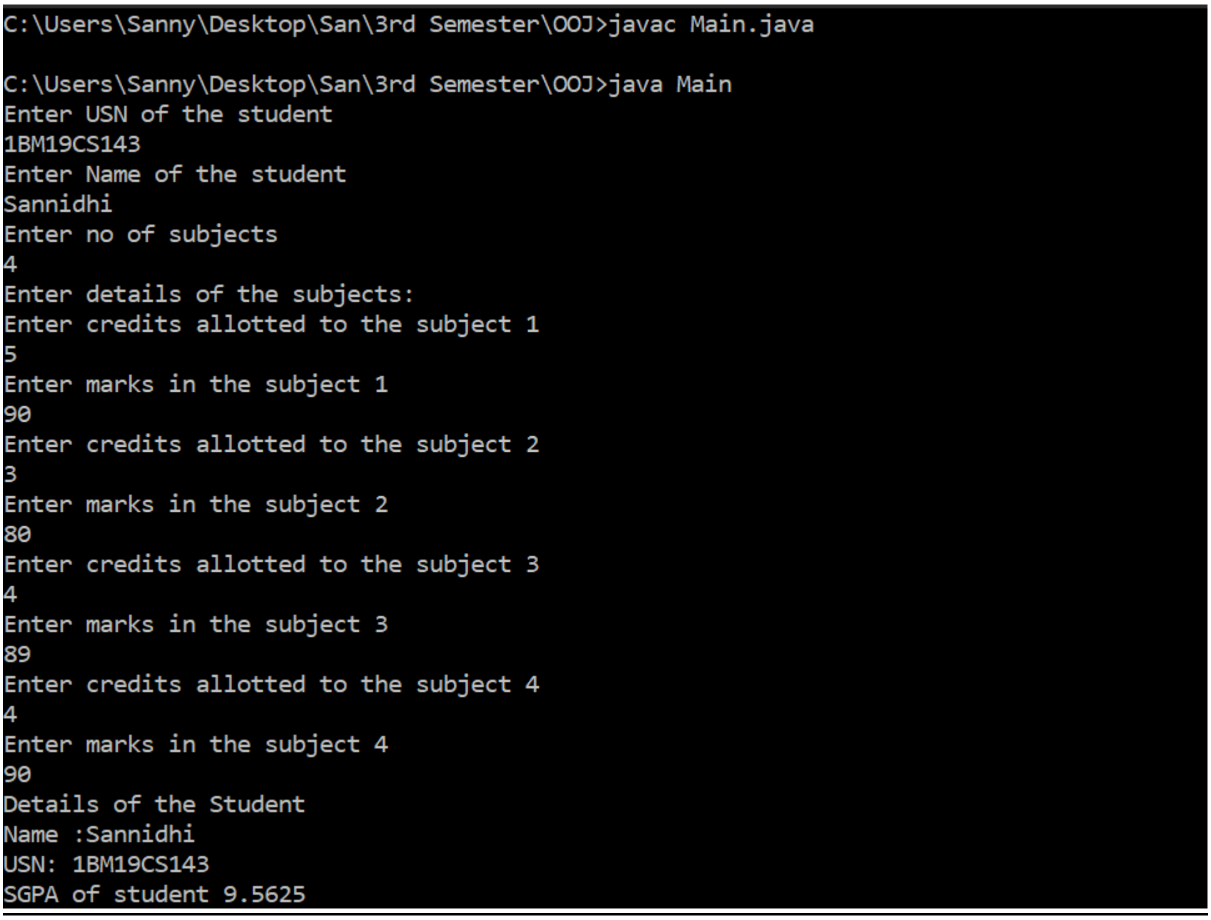


```
import java.util.*;
class Student
{
private String USN;
private String name;
private int n;
private double SGPA = 0;
private int totalCredits = 0;
Scanner ss = new Scanner(System.in);

void Details()
{
System.out.println("Enter USN of the student");
USN = ss.nextLine();
System.out.println("Enter Name of the student");
name = ss.nextLine();
System.out.println("Enter no of subjects");
n = ss.nextInt();
int credits[] = new int[n];
double marks[] = new double[n];
System.out.println("Enter details of the subjects:");
for(int i=0;i<n;i++)
{
System.out.println("Enter credits allotted to the subject "+(i+1));
credits[i] = ss.nextInt();
System.out.println("Enter marks in the subject "+(i+1));
marks[i] = ss.nextInt();
Calculate(credits[i],marks[i],i);
}
}
void Calculate(int credit,double mark,int j)
{
totalCredits = totalCredits + credit;
```



```
if(mark>=90&&mark<=100)
SGPA = SGPA + (10*credit);
else if(mark>=80 && mark<=89)
SGPA = SGPA + (9*credit);
else if(mark>=70&&mark<=79)
SGPA = SGPA + (8*credit);
else if(mark>=60&&mark<=69)
SGPA = SGPA + (7*credit);
else if(mark>=50 && mark<=59)
SGPA = SGPA + (6*credit);
else if(mark>=40&&mark<=49)
SGPA = SGPA + (5*credit);
else
System.out.println("Failed in subject "+(j+1));
}
void Display()
{
System.out.println("Details of the Student");
System.out.println("Name :"+name);
System.out.println("USN: "+USN);
System.out.println("SGPA of student "+(SGPA/totalCredits));
}
}
class Main
{
public static void main(String args[])
{
Student s1 = new Student();
s1.Details();
s1.Display();
}
}
```

Output:



```
C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>javac Main.java

C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>java Main
Enter USN of the student
1BM19CS143
Enter Name of the student
Sannidhi
Enter no of subjects
4
Enter details of the subjects:
Enter credits allotted to the subject 1
5
Enter marks in the subject 1
90
Enter credits allotted to the subject 2
3
Enter marks in the subject 2
80
Enter credits allotted to the subject 3
4
Enter marks in the subject 3
89
Enter credits allotted to the subject 4
4
Enter marks in the subject 4
90
Details of the Student
Name :Sannidhi
USN: 1BM19CS143
SGPA of student 9.5625
```

LAB PROGRAM 3:

Create a class Book which contains four members: name, author, price, num_pages. Include a constructor to set the values for the members. Include methods to set and get the details of the objects. Include a toString( ) method that could display the complete details of the book. Develop a Java program to create n book objects.

Handwritten Solution:

LAB PROGRAM - 3

1BM19CS143
Sannidhi Kumari
Date : 16|10|20

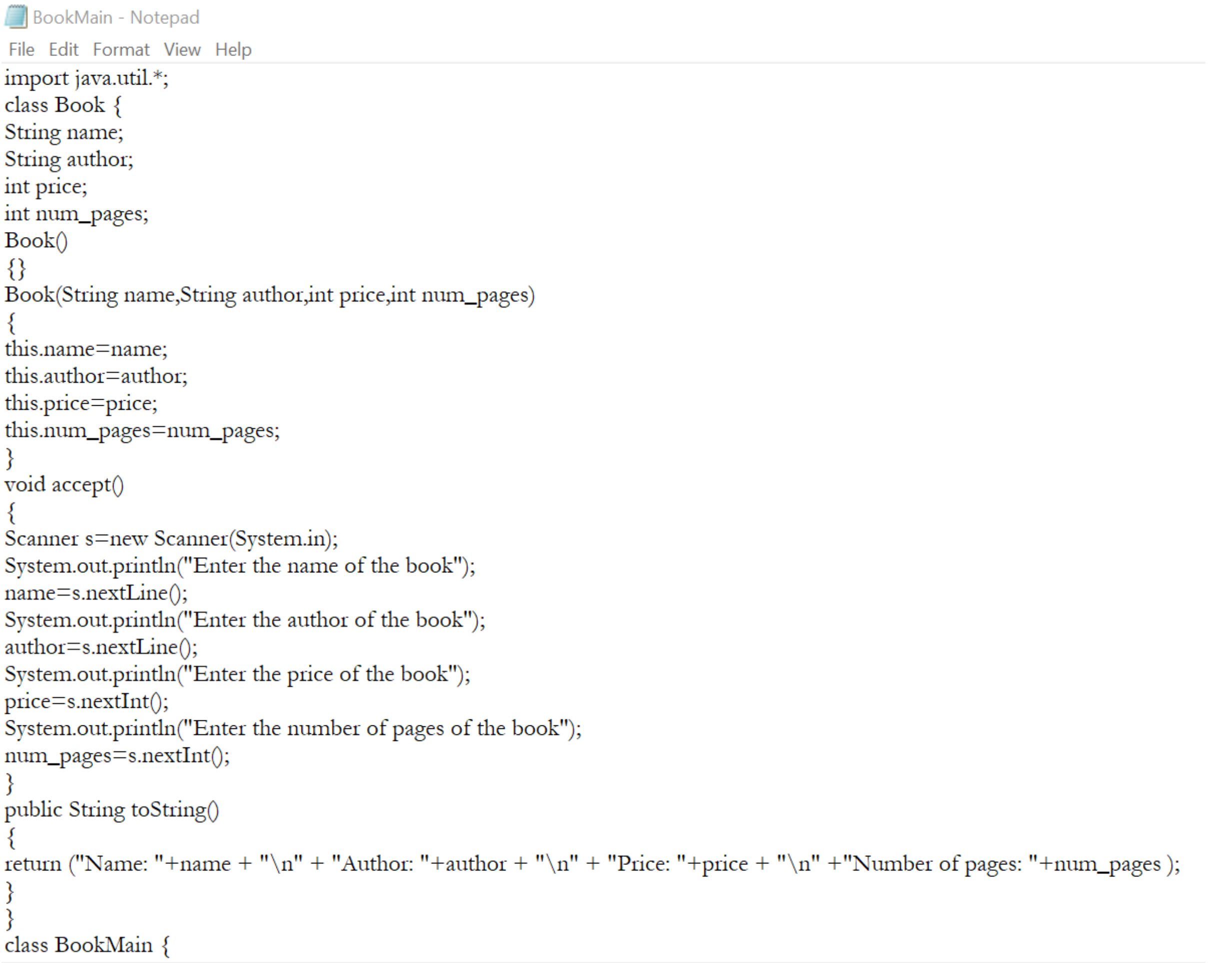
```
//Displaying book details using array of objects

import java.util.*;
class Book {
String name;
String author;
int price;
int num_pages;
 Book()
 {}
 Book (String name, String author, int price,
int num_pages)
 {
   this.name = name;
   this.author = author;
   this.price = price;
   this.num_pages = num_pages;
 }
Void accept()
 {
   ~~Sc~~ Scanner s = new Scanner (System.in);
    System.out.println("Enter name of the book");
   name = s.next();
   System.out.println("Enter the author of the
books");
   author = s.next();
    System.out.println("Enter the Price of the
book");
    price = s.nextInt();
  System.out.println("Enter the number Of pages
of the book");
num-pages = s. nentInt();
}
public String toString()
{
 return ("Name: "+ name + "\n Author: "+author+
" \n Price : "+ price+ "\n Number of Pages: "+ num-pages);
 }
}
class BookMain~~()~~{
public static void main (String ~~args~~ ss[]) {
 {
 Scanner a = new Scanner (System. in);
 book b1 = new Book( ~~"Divergent"~~, "HarryPotter",
"JKRowling", ~~500~~ 299, ~~800~~ 345);
 System. out. println( "Sample Input :\n" + b1);
 System. out. println( "Enter the no. of books");
 int n = a. nent Int();
 Book b[] = new Book [n];
  for (int i=0; i<n; i++)
  {
   b[i] = new Book();
   System. out. println ("Enter the details of"
+(i+1)+ "book");
   b[i] . accept();
  }
 {for (int i = 0; i<n; i++)
   System. out. println( "Details of book" +(i+1));
   System. out. println( b[i]);
 }
 }
]
```

Output :

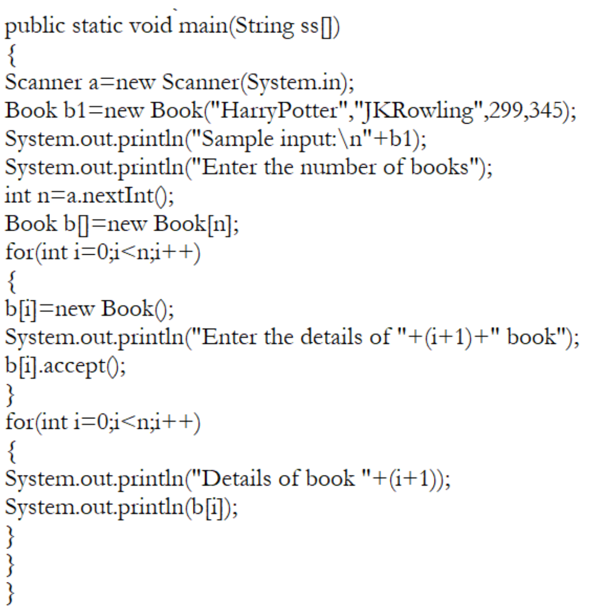
```
Sample Input :
Name : HarryPotter
Author : JKRowling.
Price : 299
Number of pages : 345.
Enter the number of books
2
Enter the details of 1 book.
Enter the name of the book.
PercyJackson.
Enter the author of the book.
RR
Enter the price of the book
300
Enter the number of pages of the book.
500
Enter the details of 2 book
Enter the name of the book.
HungerGames.
Enter the author of the book.
Collins.
Enter the price of the book.
299
Enter the number of pages ~~if~~ the book.
400
Details of book 1
Name : PercyJackson.
Author : RR.
Price : 300
Number of pages : 500
```

Details of book 2
Name: Hunger Games.
Author: Collins.
Price: 299
Number of pages: 400

Program File:

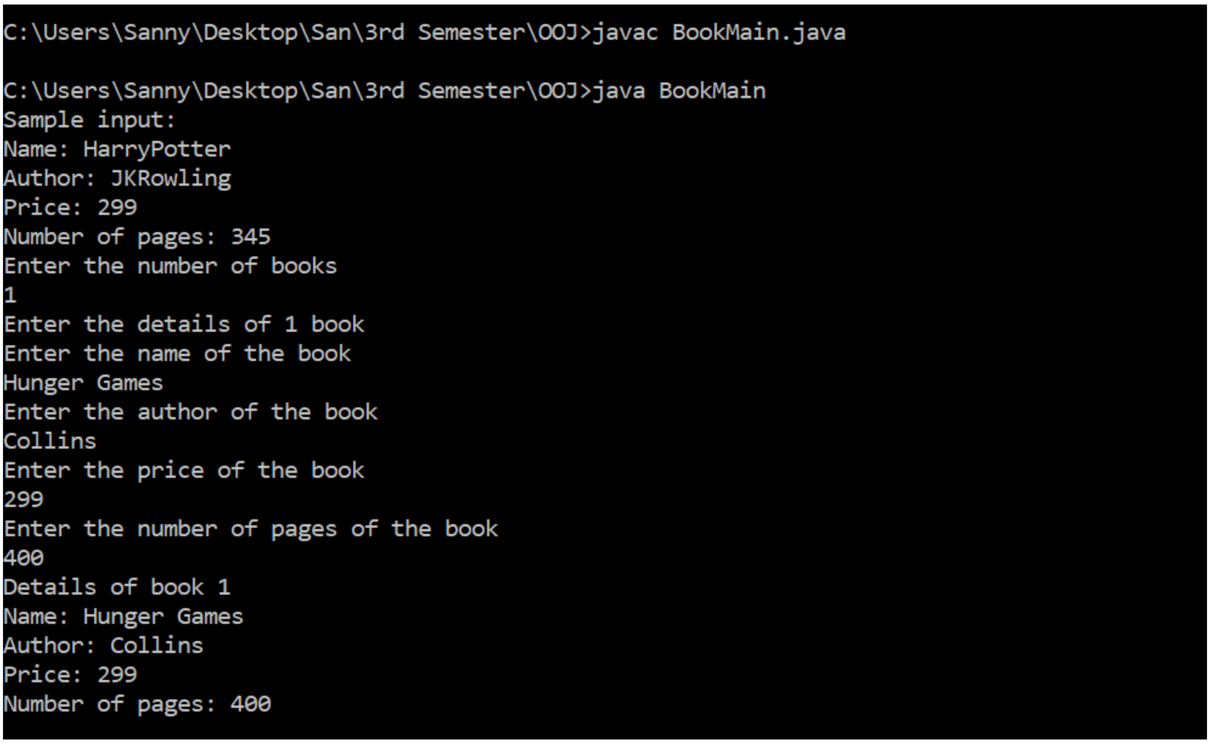


```
import java.util.*;
class Book {
String name;
String author;
int price;
int num_pages;
Book()
{}
Book(String name,String author,int price,int num_pages)
{
this.name=name;
this.author=author;
this.price=price;
this.num_pages=num_pages;
}
void accept()
{
Scanner s=new Scanner(System.in);
System.out.println("Enter the name of the book");
name=s.nextLine();
System.out.println("Enter the author of the book");
author=s.nextLine();
System.out.println("Enter the price of the book");
price=s.nextInt();
System.out.println("Enter the number of pages of the book");
num_pages=s.nextInt();
}
public String toString()
{
return ("Name: "+name + "\n" + "Author: "+author + "\n" + "Price: "+price + "\n" +"Number of pages: "+num_pages );
}
}
class BookMain {
```



```
public static void main(String ss[])
{
Scanner a=new Scanner(System.in);
Book b1=new Book("HarryPotter","JKRowling",299,345);
System.out.println("Sample input:\n"+b1);
System.out.println("Enter the number of books");
int n=a.nextInt();
Book b[]=new Book[n];
for(int i=0;i<n;i++)
{
b[i]=new Book();
System.out.println("Enter the details of "+(i+1)+" book");
b[i].accept();
}
for(int i=0;i<n;i++)
{
System.out.println("Details of book "+(i+1));
System.out.println(b[i]);
}
}
}
```

Output:



```
C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>javac BookMain.java

C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>java BookMain
Sample input:
Name: HarryPotter
Author: JKRowling
Price: 299
Number of pages: 345
Enter the number of books
1
Enter the details of 1 book
Enter the name of the book
Hunger Games
Enter the author of the book
Collins
Enter the price of the book
299
Enter the number of pages of the book
400
Details of book 1
Name: Hunger Games
Author: Collins
Price: 299
Number of pages: 400
```

LAB PROGRAM 4:

Develop a Java program to create an abstract class named Shape that contains two integers and an empty method named printArea( ). Provide three classes named Rectangle, Triangle and
Circle such that each one of the classes extends the class Shape. Each one of the classes containonly the method printArea( ) that prints the area of the given shape.

Handwritten Program:

LAB PROGRAM-4

1BM19CS143
Sannidhi Kasturi

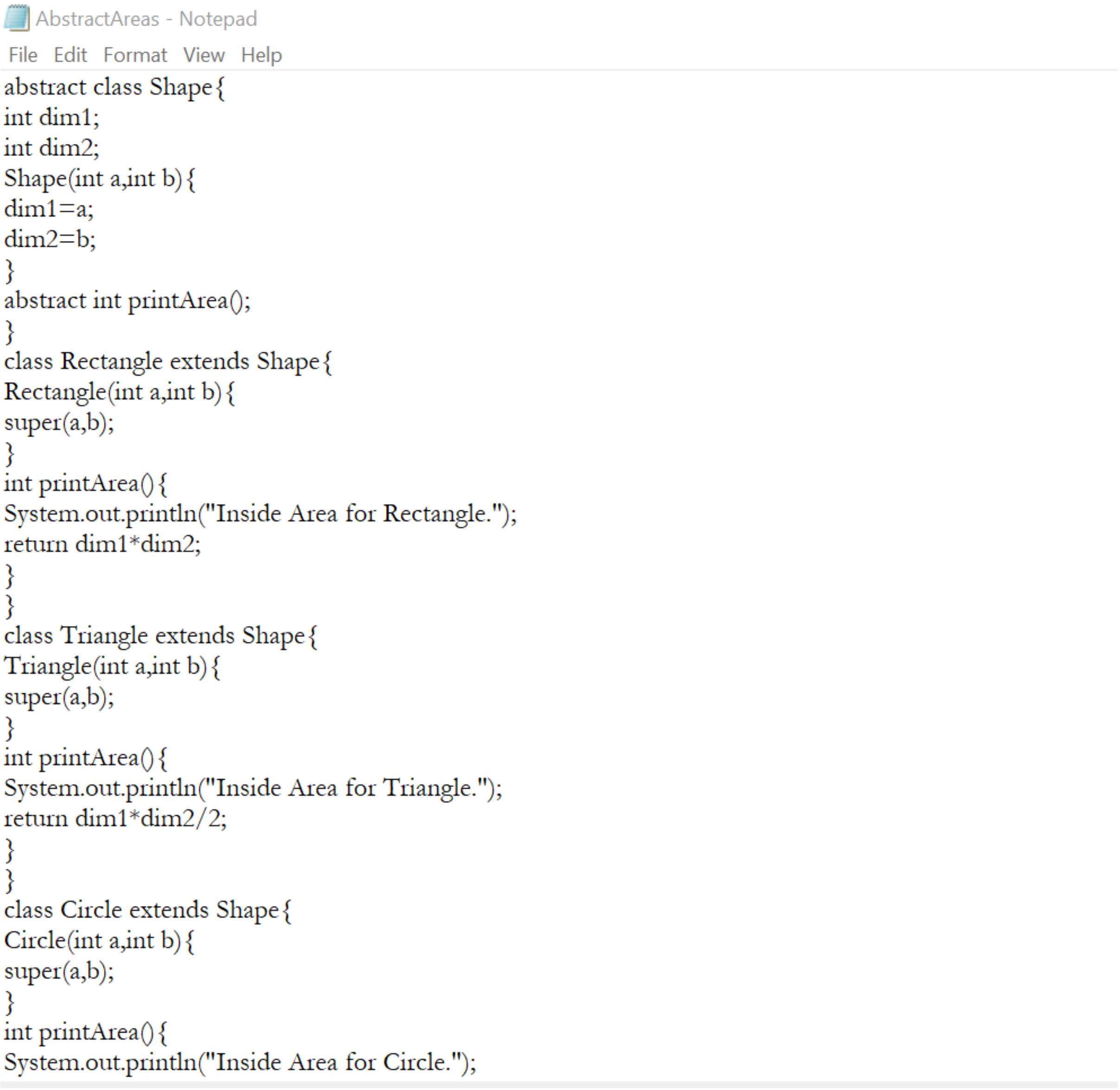
DATE: 06.11.20

```
abstract class Shape {
 int dim1;
 int dim2;
 Shape (int a, int b){
  dim1 = a;
  dim2 = b;
 }
 abstract int printArea() ;
}
class Rectangle extends Shape {
 Rectangle(int a, int b) {
 super(a, b);
 }
 int printArea(){
 System.out.println("Inside Area for Rectangle.");
 return dim1 * dim2;
 }
}
class Triangle extends Shape{
 Triangle (int a , int b) {
 super (a,b);
 }
 int printArea(){
 System.out.println ("Inside Area of Triangle");
 return dim1 * dim2/2;
 }
}
class Circle extends Shape {
 Circle ( int a, int b) {
 super(a,b);
}
int printArea(){
System.out.println("Inside Area for Circle.");
return 22/7 * dim1 * dim1;
}
}
class AbstractAreas {
 public static void main(String args[]){
Rectangle r = new Rectangle(10,10);
Triangle t = new Triangle(4,5);
Circle c = new Circle(4,0);
 Shape s;
 s = r;
 System.out.println("Area is " + s.printArea());
 s = t;
 System.out.println("Area is "+ s.printArea());
 s = c;
 System.out.println(" Area is " + s.printArea());
 }
}
```

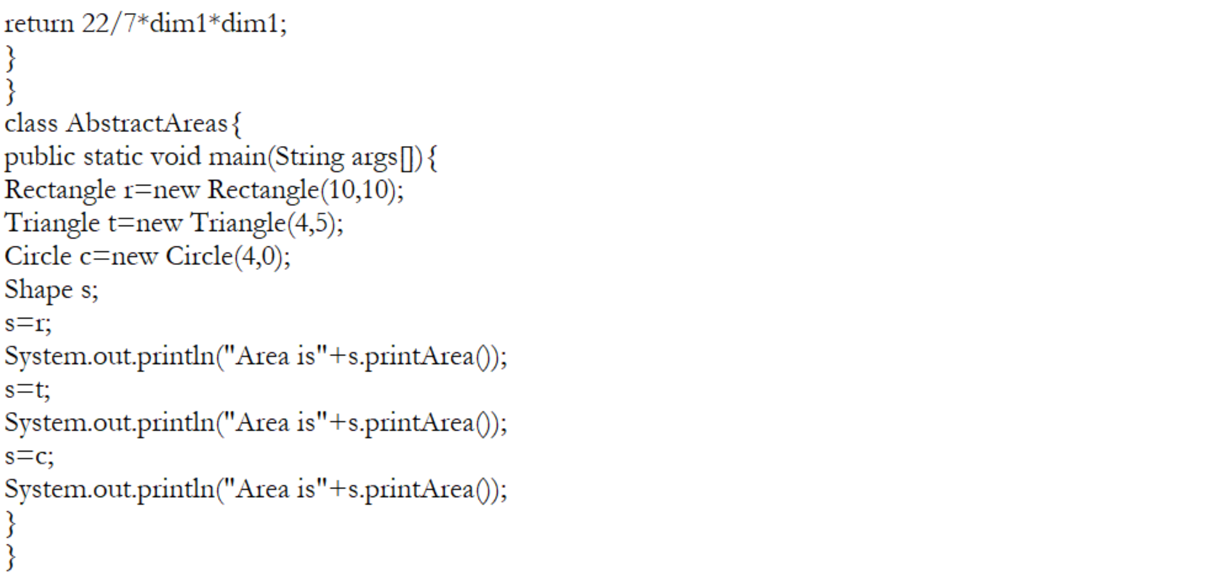
Output :

```
Inside Area for Rectangle
 Area is 100
 Inside Area for Triangle
 Area is 10
 Inside Area for Circle.
 Area is 48.
```

Program File:

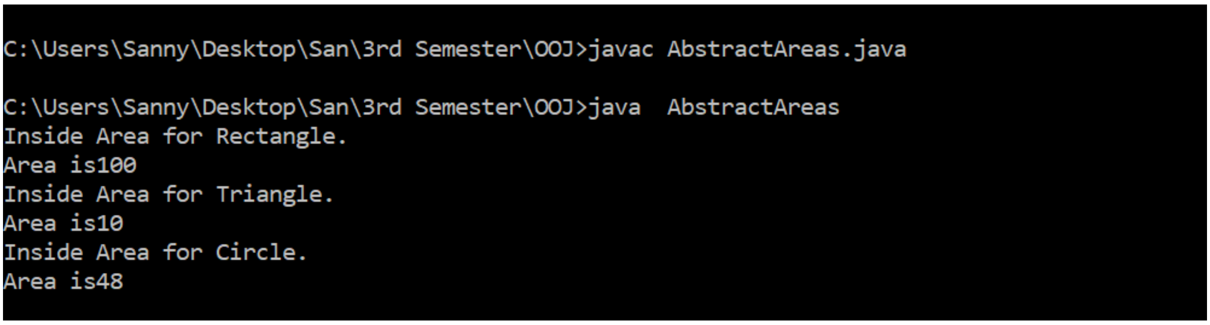


```
abstract class Shape{
int dim1;
int dim2;
Shape(int a,int b){
dim1=a;
dim2=b;
}
abstract int printArea();
}
class Rectangle extends Shape{
Rectangle(int a,int b){
super(a,b);
}
int printArea(){
System.out.println("Inside Area for Rectangle.");
return dim1*dim2;
}
}
class Triangle extends Shape{
Triangle(int a,int b){
super(a,b);
}
int printArea(){
System.out.println("Inside Area for Triangle.");
return dim1*dim2/2;
}
}
class Circle extends Shape{
Circle(int a,int b){
super(a,b);
}
int printArea(){
System.out.println("Inside Area for Circle.");
```



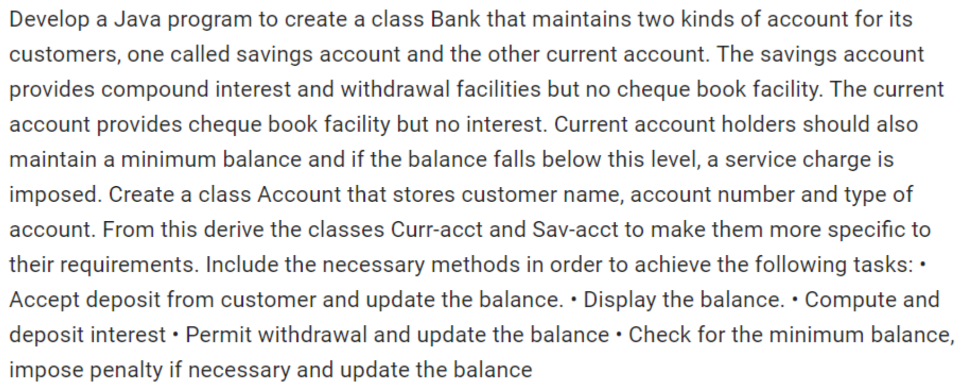
```
return 22/7*dim1*dim1;
}
}
class AbstractAreas{
public static void main(String args[]){
Rectangle r=new Rectangle(10,10);
Triangle t=new Triangle(4,5);
Circle c=new Circle(4,0);
Shape s;
s=r;
System.out.println("Area is"+s.printArea());
s=t;
System.out.println("Area is"+s.printArea());
s=c;
System.out.println("Area is"+s.printArea());
}
}
```

Output:



```
C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>javac AbstractAreas.java

C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>java  AbstractAreas
Inside Area for Rectangle.
Area is100
Inside Area for Triangle.
Area is10
Inside Area for Circle.
Area is48
```

LAB PROGRAM 5:



Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed. Create a class Account that stores customer name, account number and type of account. From this derive the classes Curr-acct and Sav-acct to make them more specific to their requirements. Include the necessary methods in order to achieve the following tasks: • Accept deposit from customer and update the balance. • Display the balance. • Compute and deposit interest • Permit withdrawal and update the balance • Check for the minimum balance, impose penalty if necessary and update the balance

Handwritten Program:

LAB PROGRAM-5

1BM19CS143
Sannidhi Kasturi

DATE : 06-11-20

```
import java. util. * ;
class Bank
{
 int deposit_balance;
 int withdraw_balance;
 String customername;
 String   Account_Number;
 int  Account_Type;
 int  Balance = 27890;
  void accept()
  {
  Scanner s = new Scanner(System.in);
  System. out. println("Enter the customer name \n");
 customername = s.nextLine();
  System. out println( "Enter the Account Number \n");
  Account_Number = s. nextLine();
  System. out . println("Enter the Account Type : \n
1. Current Account \n 2. Savings Account \n");
  Account_Type = s nextInt();
 }
 Void display()
 {
  System. out, println ("Customer name :"
+customername);
  System. out. println ( " Account Number : "+
Account_Number);
  System. out, println (" Account Type : "+
Account_Type);
  }
 }
```

```
class curr_act entends Bank{

int updated_balance;
int After_withdrawn;
int updated_lost_cbalance;

int cdepo_ba(){
updated_balance = Balance + deposit_Balance;
return updated_balance;
}
int c_with_ba(){
After_cwithdrawn=((updated_balance)-(withdraw_
balance));
return After_withdrawn;
}
int minimum()
{
{if((After_withdrawn)<=(2000))

updated_lost_cbalance = ((After_cwithdrawn)-(200));
System.out.println("you have minimum balance
below 2000 so you have lost 200rs");
return updated_lost_cbalance;
}
else
return After_cwithdrawn;
}
}
class sav_acct entends Bank{
int supdated_balance;
int After_swithdrawn;
int updated_lost_sbalance.
int depo_ba(){
updated_balance = Balance + deposit_ balance;
return updated_balance ;
}
int interest(){
double r = 0.08;
int n =12;
int t = 5;
compound_interest = (int)((updated_balance)*
Math.pow((1+(r/n)), (n*t))));
return compound_interest;
}
int Swith_ba(){
After_ swithdrawn =((compound_interest)-(withdraw_
balance));
return After_swithdrawn;
}
int minimum() {
if ((After_ swithdrawn) <= (1000)).
{
 updated_lost_sbalance =((After_swithdrawn)-(100));
return updated_lost_sbalance;
}
else
 return After_swithdrawn;
}
}
class Transactions {
Public static void main (String args [ ]){
Scanner r = new Scanner (System.in);
curr_acct CA = new curr_acct();
CA.accept();
if (CA.Account_Type ==1) {
System.out.println(" Enter the money you want
in rupees ");
to deposit in Current Account
CA.deposit_balance = r.nextInt();
CA.display();
System.out.println("After your deposition of "
+CA.deposit_balance+"\n Now your total
balance is RS-"+CA.udepo_bal());
System.out.println("Enter the money you want
to withdraw in rupees:");
CA.withdraw_balance = r.nextInt();
System.out.println("After your withdrawal of "
+CA.withdraw_balance+"\n Now your total balance
is RS-"+CA.minimum());
}
else
System.out.println("Invalid!");
sav_acct SA = new sav_acct();
SA.accept();
if(SA.Account_Type==2){
System.out.println("Enter the money you
want to deposit in Savings Account in rupees");
SA.deposit_balance = r.nextInt();
SA.display();
System.out.println("After your deposition of "
+SA.deposit_balance+"\n Now your balance is
RS-"+SA.udepo_ba());
System.out.println("After interest your updated
balance is RS-"+SA.interest());
System.out.println("Enter the money you
want to withdraw in rupees");
SA.withdraw_balance = r.nextInt();
System.out.println("After your withdrawal of
RS-"+SA.withdraw_balance+"\n Now your
total balance is RS-"+SA.uwith_bal());
```

```
System.out.println("After ~~your~~ checking if you
have minimum balance or not, your updated
total balance is RS-" +SA.minimum());
}
else
 System.out.println(" Invalid!");
}
}
```

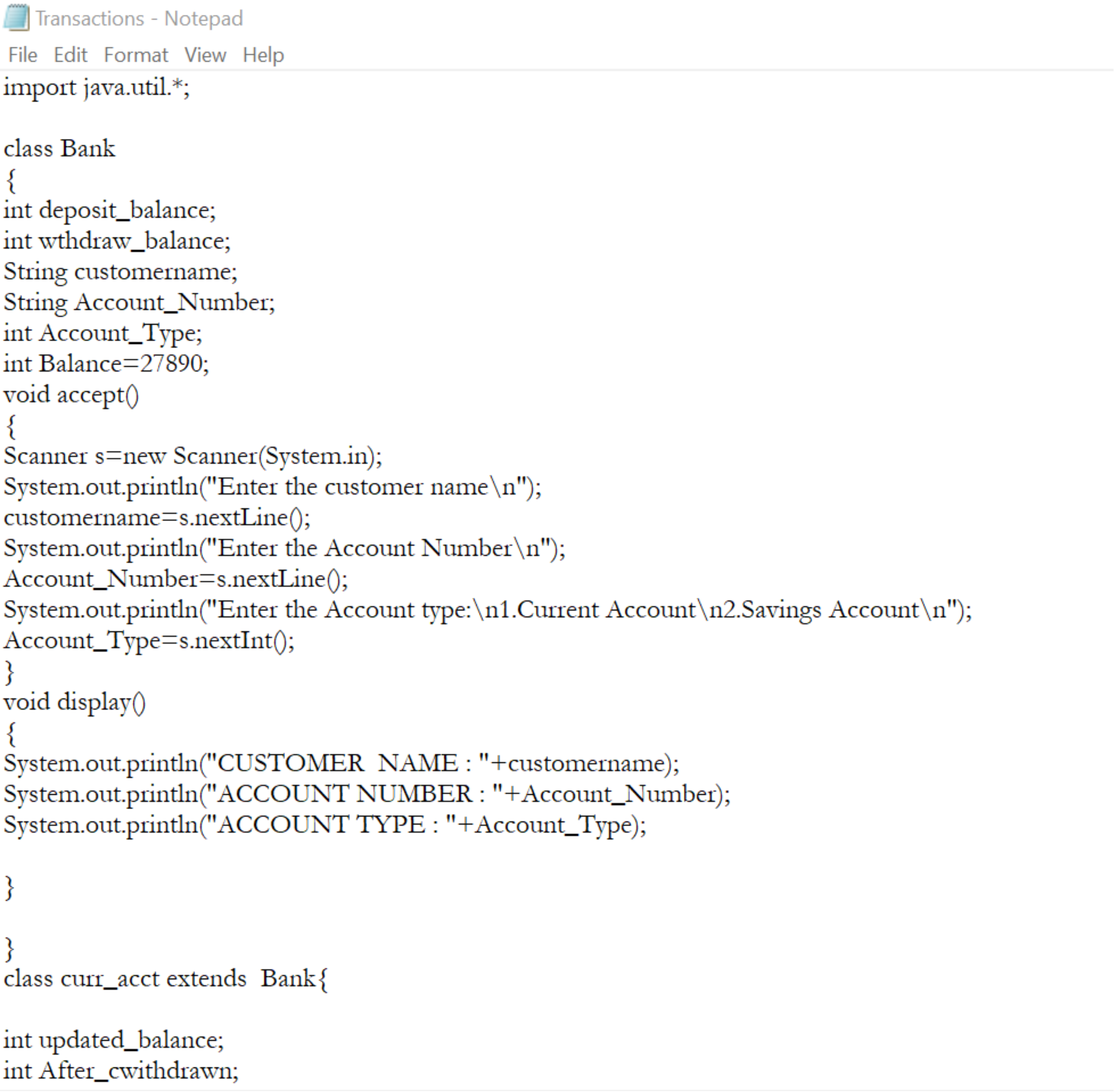
OUTPUT:

```
Enter the customer name
Sannidhi Kasturi
Enter the Account Number
2344
Enter the Account type
1. Current Account.
2. Savings Account.
```

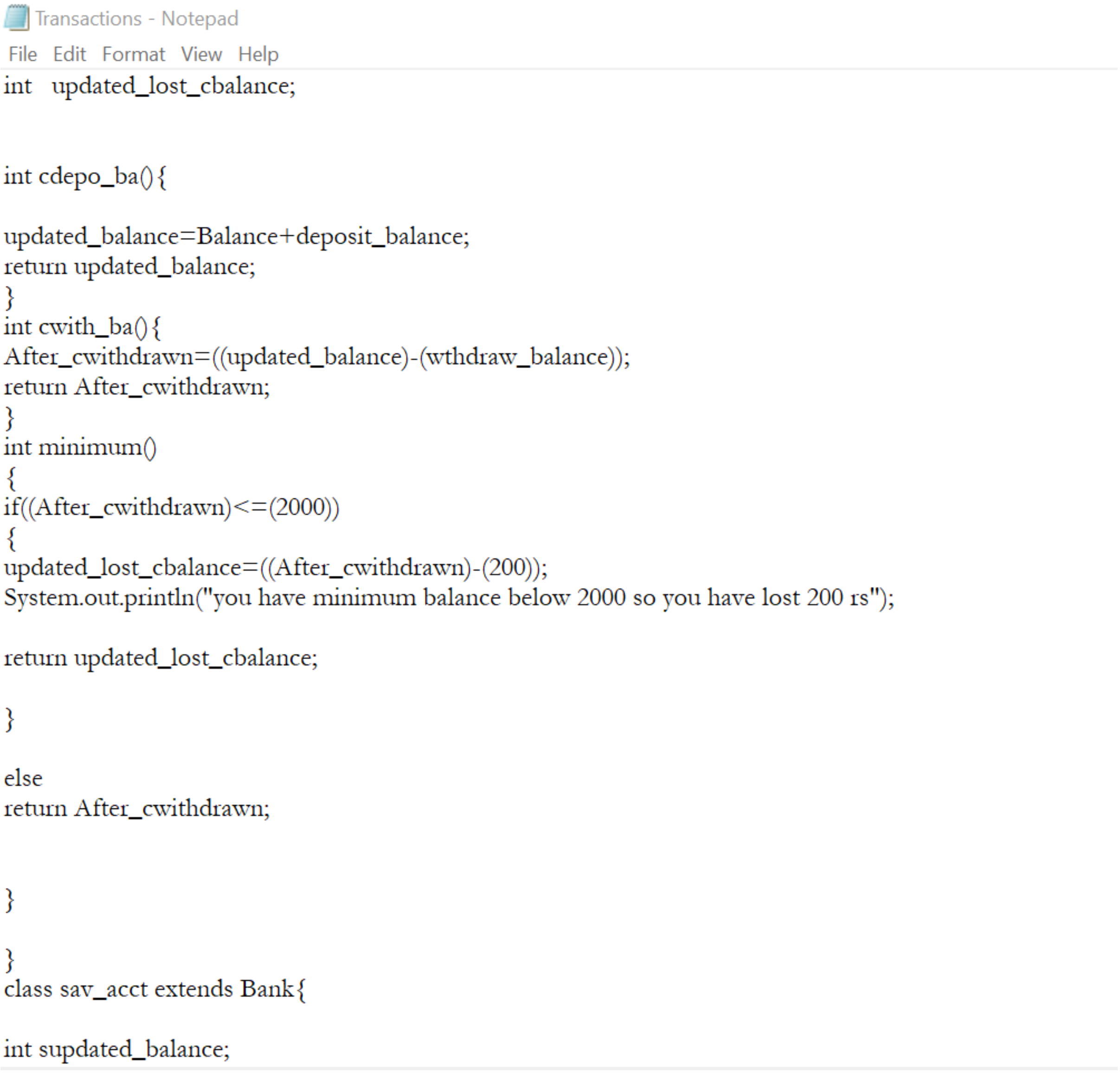
```
1
Enter the money you want to deposit in
Current Account in rupees.
200
CUSTOMER NAME : Sannidhi Kasturi
ACCOUNT NUMBER: 2344
ACCOUNT TYPE : 1
 After your deposition of 200
 Now your total balance is   RS- 28090
 Enter the money you want to withdrawn
  in rupees
  10
 After your withdrawal of 10
 Now your total balance is   RS- 28080
```

```
After checking if you have minimum
balance or not, your updated total balance
is RS - 28080.

Enter the customer name
Neha Kumari
Enter the Account number.
2221
Enter the Account type
1. Current Account.
2. Savings Account.
2
Enter the money you want to deposit in
Savings Account.
200
CUSTOMER NAME: Neha Kumari
ACCOUNT NUMBER: 2221
ACCOUNT TYPE : 2
After your deposition of 200
Now your total balance is RS- 41849
Enter the money you want to withdraw
in Savings Account.
20
After your withdrawal of 20
Now your total balance is RS-41829
After checking if you have minimum
balance or not, your updated balance
is RS- 41829.
```

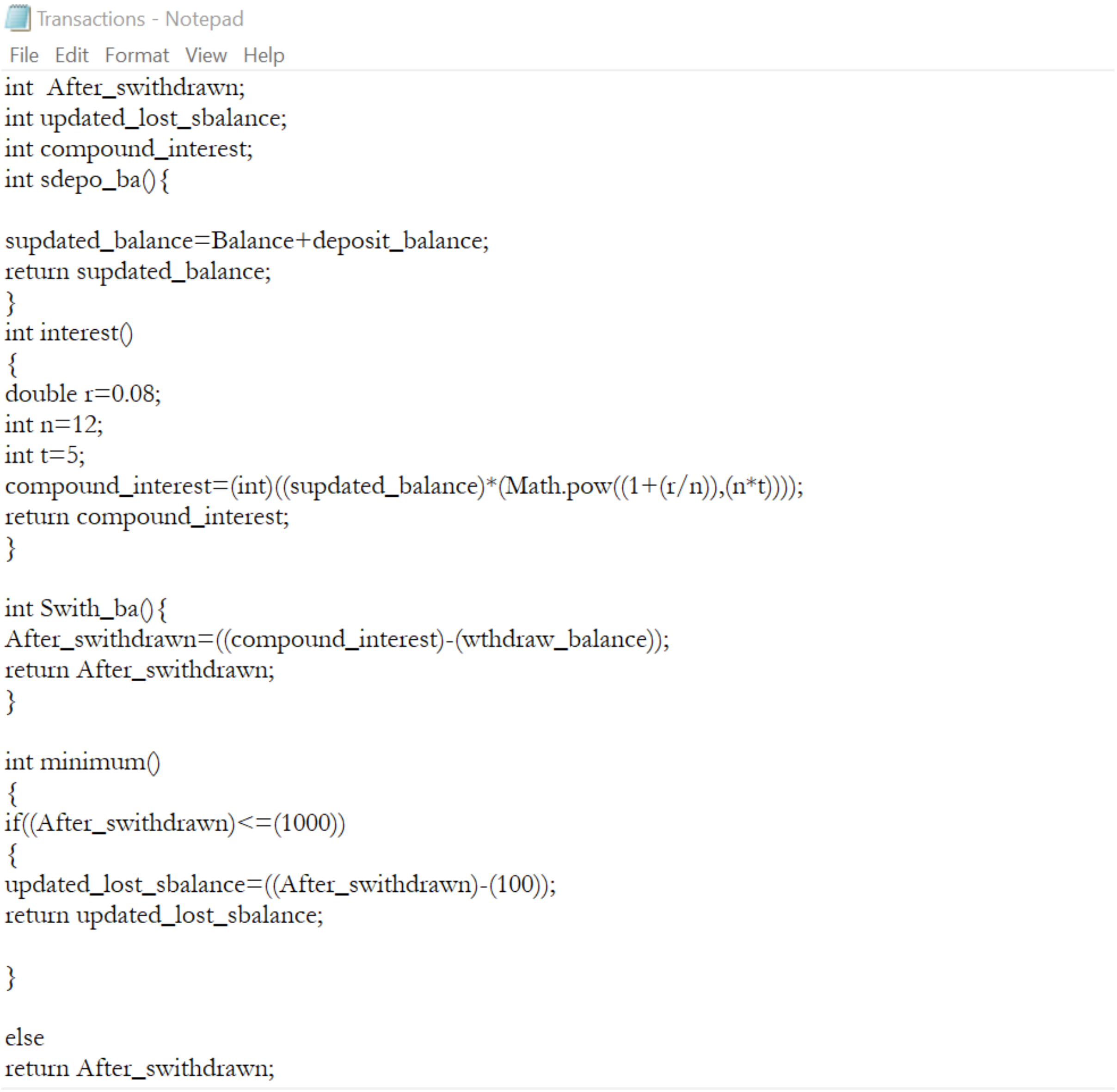
Program File:



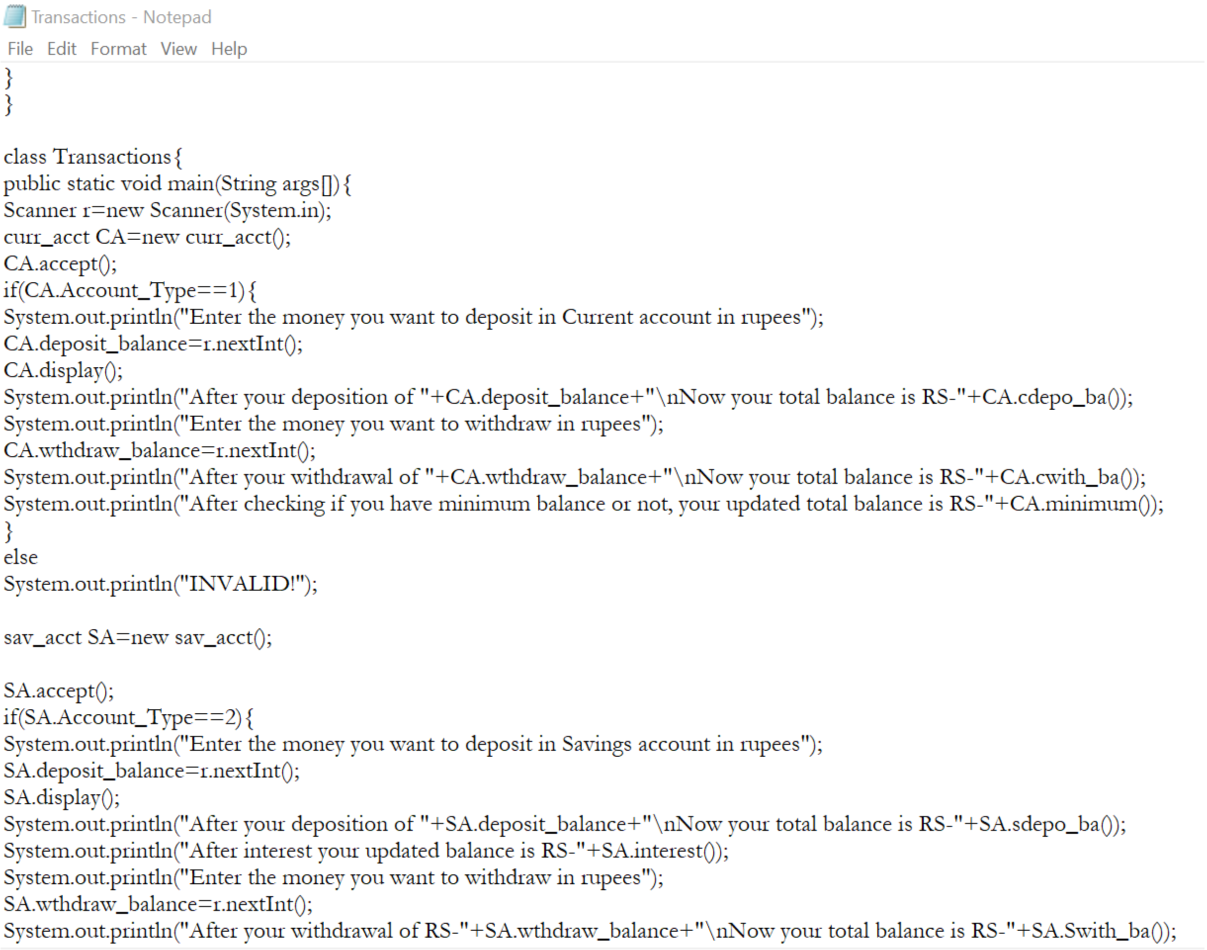
```
import java.util.*;

class Bank
{
int deposit_balance;
int wthdraw_balance;
String customername;
String Account_Number;
int Account_Type;
int Balance=27890;
void accept()
{
Scanner s=new Scanner(System.in);
System.out.println("Enter the customer name\n");
customername=s.nextLine();
System.out.println("Enter the Account Number\n");
Account_Number=s.nextLine();
System.out.println("Enter the Account type:\n1.Current Account\n2.Savings Account\n");
Account_Type=s.nextInt();
}
void display()
{
System.out.println("CUSTOMER  NAME : "+customername);
System.out.println("ACCOUNT NUMBER : "+Account_Number);
System.out.println("ACCOUNT TYPE : "+Account_Type);

}

}
class curr_acct extends  Bank{

int updated_balance;
int After_cwithdrawn;
```



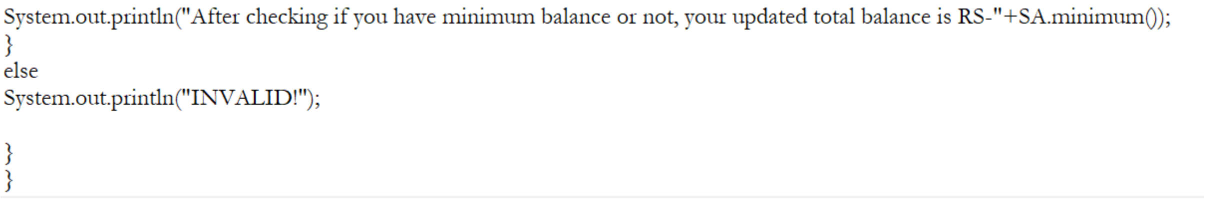
```
int   updated_lost_cbalance;


int cdepo_ba(){

updated_balance=Balance+deposit_balance;
return updated_balance;
}
int cwith_ba(){
After_cwithdrawn=((updated_balance)-(wthdraw_balance));
return After_cwithdrawn;
}
int minimum()
{
if((After_cwithdrawn)<=(2000))
{
updated_lost_cbalance=((After_cwithdrawn)-(200));
System.out.println("you have minimum balance below 2000 so you have lost 200 rs");

return updated_lost_cbalance;

}

else
return After_cwithdrawn;


}

}
class sav_acct extends Bank{

int supdated_balance;
```



```
int  After_swithdrawn;
int updated_lost_sbalance;
int compound_interest;
int sdepo_ba(){

supdated_balance=Balance+deposit_balance;
return supdated_balance;
}
int interest()
{
double r=0.08;
int n=12;
int t=5;
compound_interest=(int)((supdated_balance)*(Math.pow((1+(r/n)),(n*t))));
return compound_interest;
}

int Swith_ba(){
After_swithdrawn=((compound_interest)-(wthdraw_balance));
return After_swithdrawn;
}

int minimum()
{
if((After_swithdrawn)<=(1000))
{
updated_lost_sbalance=((After_swithdrawn)-(100));
return updated_lost_sbalance;

}

else
return After_swithdrawn;
```

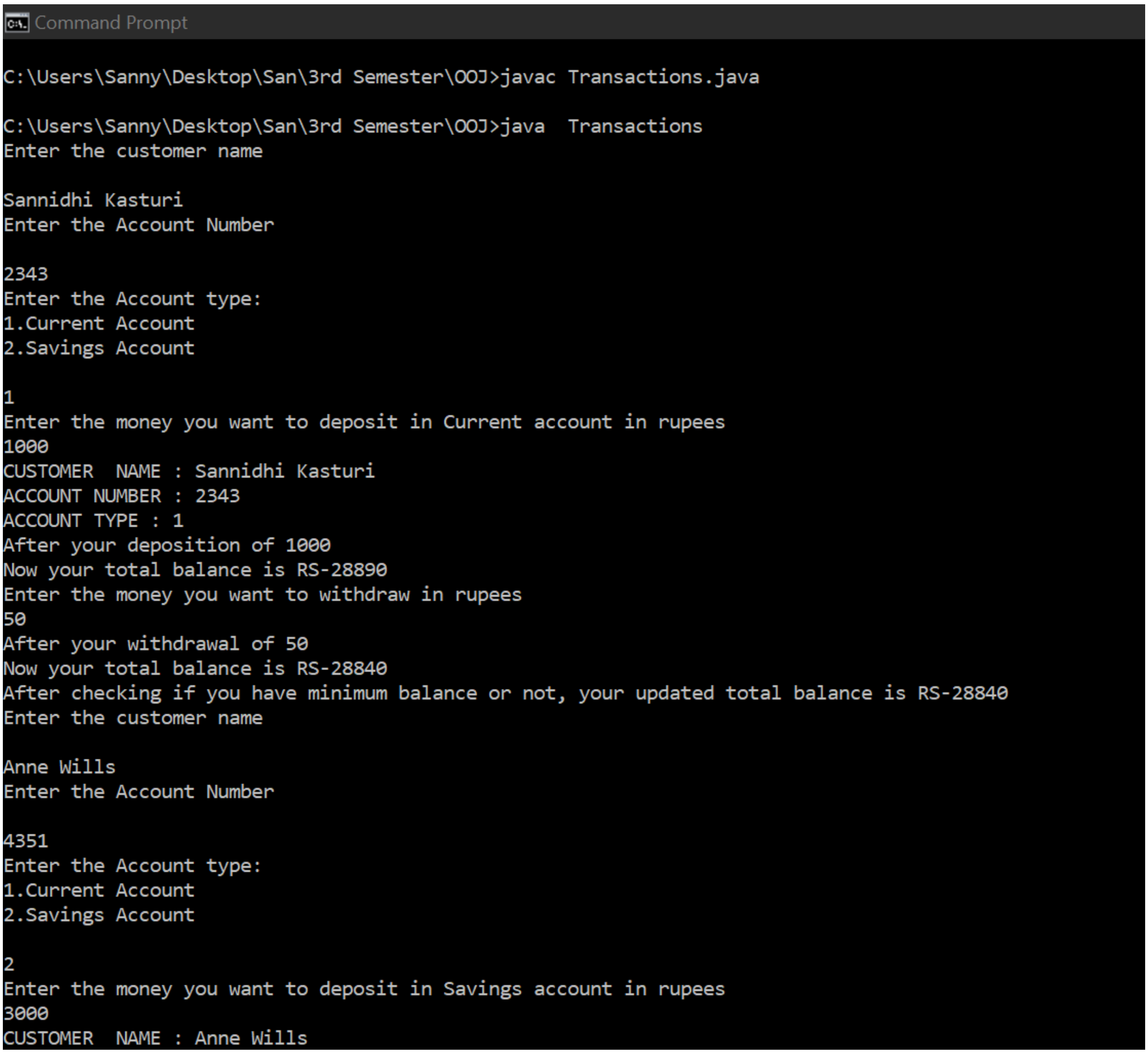


```
}
}

class Transactions{
public static void main(String args[]){
Scanner r=new Scanner(System.in);
curr_acct CA=new curr_acct();
CA.accept();
if(CA.Account_Type==1){
System.out.println("Enter the money you want to deposit in Current account in rupees");
CA.deposit_balance=r.nextInt();
CA.display();
System.out.println("After your deposition of "+CA.deposit_balance+"\nNow your total balance is RS-"+CA.cdepo_ba());
System.out.println("Enter the money you want to withdraw in rupees");
CA.wthdraw_balance=r.nextInt();
System.out.println("After your withdrawal of "+CA.wthdraw_balance+"\nNow your total balance is RS-"+CA.cwith_ba());
System.out.println("After checking if you have minimum balance or not, your updated total balance is RS-"+CA.minimum());
}
else
System.out.println("INVALID!");

sav_acct SA=new sav_acct();

SA.accept();
if(SA.Account_Type==2){
System.out.println("Enter the money you want to deposit in Savings account in rupees");
SA.deposit_balance=r.nextInt();
SA.display();
System.out.println("After your deposition of "+SA.deposit_balance+"\nNow your total balance is RS-"+SA.sdepo_ba());
System.out.println("After interest your updated balance is RS-"+SA.interest());
System.out.println("Enter the money you want to withdraw in rupees");
SA.wthdraw_balance=r.nextInt();
System.out.println("After your withdrawal of RS-"+SA.wthdraw_balance+"\nNow your total balance is RS-"+SA.Swith_ba());
```

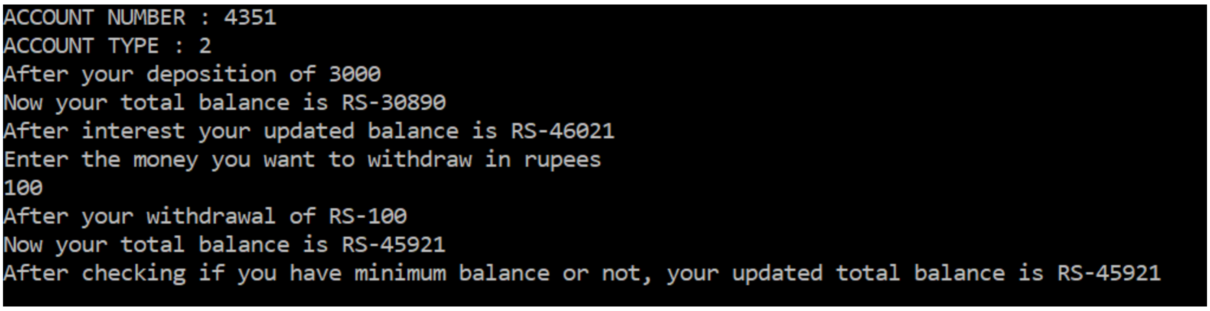


```
System.out.println("After checking if you have minimum balance or not, your updated total balance is RS-"+SA.minimum());
}
else
System.out.println("INVALID!");

}
}
```

Output:



```
C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>javac Transactions.java

C:\Users\Sanny\Desktop\San\3rd Semester\OOJ>java  Transactions
Enter the customer name

Sannidhi Kasturi
Enter the Account Number

2343
Enter the Account type:
1.Current Account
2.Savings Account

1
Enter the money you want to deposit in Current account in rupees
1000
CUSTOMER  NAME : Sannidhi Kasturi
ACCOUNT NUMBER : 2343
ACCOUNT TYPE : 1
After your deposition of 1000
Now your total balance is RS-28890
Enter the money you want to withdraw in rupees
50
After your withdrawal of 50
Now your total balance is RS-28840
After checking if you have minimum balance or not, your updated total balance is RS-28840
Enter the customer name

Anne Wills
Enter the Account Number

4351
Enter the Account type:
1.Current Account
2.Savings Account

2
Enter the money you want to deposit in Savings account in rupees
3000
CUSTOMER  NAME : Anne Wills
```



```
ACCOUNT NUMBER : 4351
ACCOUNT TYPE : 2
After your deposition of 3000
Now your total balance is RS-30890
After interest your updated balance is RS-46021
Enter the money you want to withdraw in rupees
100
After your withdrawal of RS-100
Now your total balance is RS-45921
After checking if you have minimum balance or not, your updated total balance is RS-45921
```