00J LAB TEST 2

RECORD EVALUATION

Program 1

Develop a Java program that prints all real solutions to the quadratic equation ax2 +bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b2-4ac is negative, display a message stating that there are no real solutions.

```
Lab 1
import java.util.*;
class quadratic
{
   Public static void main (String[] args)
   {
      Scanner sc = new Scanner (System.in);
      System.out.println("Enter the values");
      double a = sc.nextInt();
      double b = sc.nextInt();
      double c = sc.nextInt();
      while (a!=0)
      {
         double d = (b*b) - (4*a*c);
         if (d==0)
         {
            double x = (-1*b) / (2*a);
            system.out.println("The roots are : " + x);
            break;
         }
         else if (d>0)
         {
            double xa = (-1*b+Math.sqrt(d)) / (2*a);
            double xb = (-1*b - Math.sqrt(d)) / (2*a);
         System.out.println("The roots are " + xa + "&" + xb);
          break;
         }
         else if (d<0)
         {
            System.out.println("The roots are imaginary");
            break;
         }
      }
   }
}
```

quadratic.java

```java
import java.util.*;
class quadratic
{
    public static void main(String[] args)
    {
        Scanner sc=new Scanner (System.in);
        System.out.println("enter the values");
        double a=sc.nextInt();
        double b=sc.nextInt();
        double c=sc.nextInt();
    while(a!=0)
    {
        double d=(b*b)-(4*a*c);
        if(d==0)
        {
            double x=(-1*b)/(2*a);
            System.out.println("the roots are: "+x);
            break;
        }
        else if(d>0)
        {
            double xa=(-1*b+Math.sqrt(d))/(2*a);
            double xb=(-1*b-Math.sqrt(d))/(2*a);
        System.out.println("the roots are "+xa +"&"+xb);
        break;
        }
        else if(d<0)
        {
        System.out.println("the roots are imaginary");
        break;
        }
    }
    }
}
```

Command Prompt

```
Microsoft Windows [Version 10.0.18363.1082]
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C:\Users\91992>cd desktop

C:\Users\91992\Desktop>javac quadratic.java

C:\Users\91992\Desktop>java quadratic
enter the values
1
-2
1
the roots are: 1.0

C:\Users\91992\Desktop>java quadratic
enter the values
4
4
1
the roots are: -0.5

C:\Users\91992\Desktop>
```

Program 2

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

```
Lab 2
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 subject:");
      for(int i=0; i<n; i++)
       {
          System.out.println("Enter credits allated
          to the subject " +(i+1));
          credits[i] = ss.nextInt();
       System.out.println("Enter marks in the subject"+(i+1));
        marks[i] = s s.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 subjects " + (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();
   }
}
```

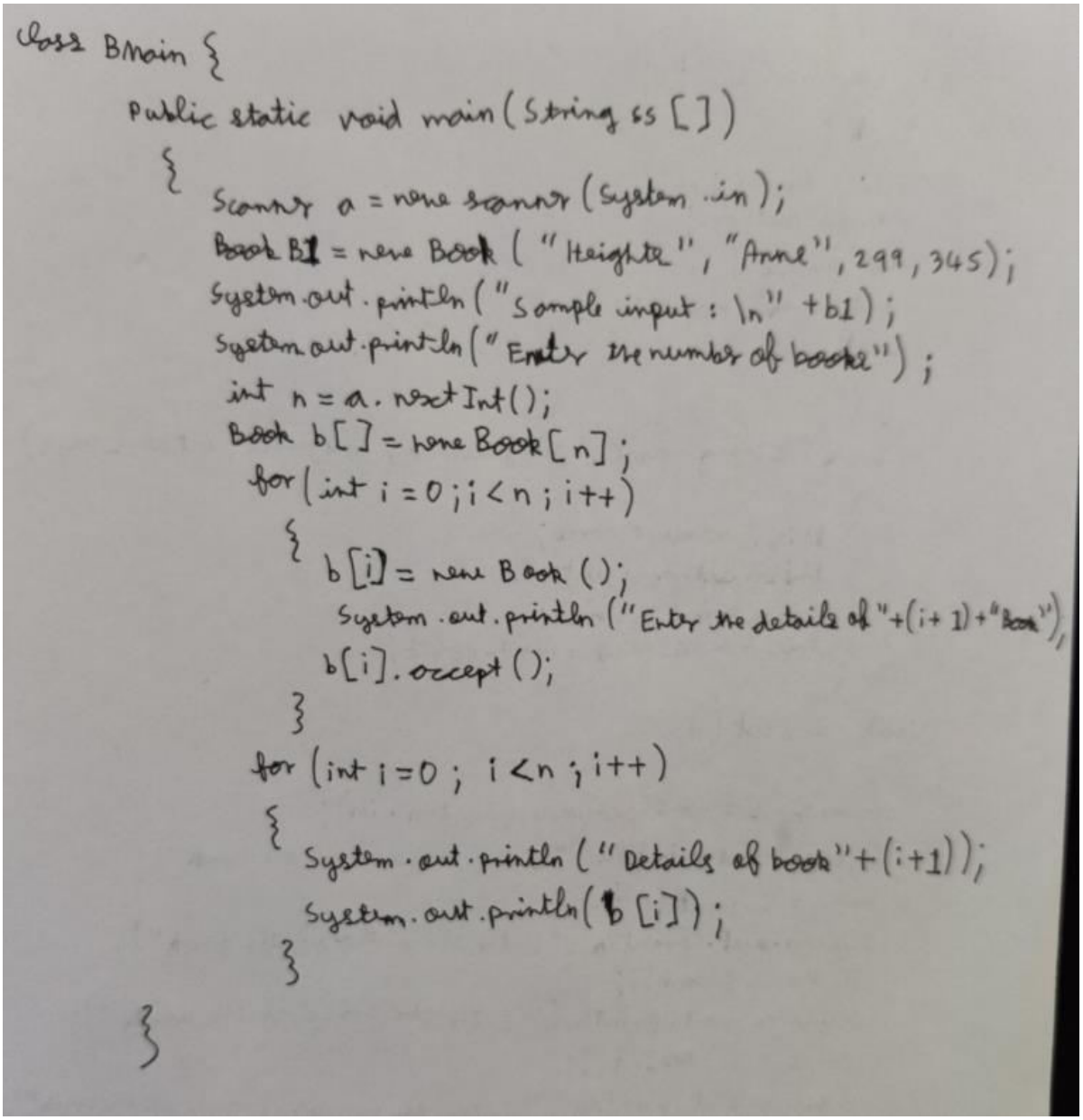
```java
import java.util.*;
class Student
{
    private String USN;
    private String name;
    private int n;
    private double SGPA = 0;
    private int totalCredits = 0;
    Scanner ss = new Scanner(System.in);

    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 ubject "+(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();
    }
}
```

```
C:\Users\91992\Desktop>javac Student.java

C:\Users\91992\Desktop>java Main
Enter USN of the student
1bm19cs023
Enter Name of the student
arjun balu
Enter no of subjects
4
Enter details of the subjects:
Enter credits allotted to the subject 1
4
Enter marks in the subject 1
85
Enter credits allotted to the subject 2
3
Enter marks in the subject 2
75
Enter credits allotted to the subject 3
3
Enter marks in the subject 3
50
Enter credits allotted to the subject 4
2
Enter marks in the subject 4
35
Failed in ubject 4
Details of the Student
Name :arjun balu
USN: 1bm19cs023
SGPA of student 6.5
```

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.

```
Lab 3
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.next();
    System.out.println("Enter the author of the book");
    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.nextInt();
  }
  Public String toString()
    {
      return("Name: " + name + "\n" + "Author: " + author +
          "\n" + "price:" + price + "\n" + "number of pages:" + num_pages
                                                          );
    }
}
```



```
class BMain {
    Public static void main(String ss[])
    {
        Scanner a = new Scanner(System.in);
        Book B1 = new Book("Heights", "Anne", 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]);
        }
    }
```

```java
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.next();
        System.out.println("Enter the author of the book");
        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.nextInt();
    }
    public String toString()
    {
        return ("Name: "+name + "\n" + "Author: "+author + "\n" + "Price: "+price + "\n" +"Number of pages: "+num_pages );
    }
}
class BMain {
    public static void main(String ss[])
    {
        Scanner a=new Scanner(System.in);
        Book bl=new Book("Heights","Anne",299,345);
        System.out.println("Sample input:\n"+bl);
        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]);
        }
    }
}
```

```
C:\Users\91992\Desktop>javac Book.java

C:\Users\91992\Desktop>java BMain
Sample input:
Name: Heights
Author: Anne
Price: 299
Number of pages: 345
Enter the number of books
3
Enter the details of 1 book
Enter the name of the book
book1
Enter the author of the book
auth1
Enter the price of the book
499
Enter the number of pages of the book
350
Enter the details of 2 book
Enter the name of the book
book2
Enter the author of the book
auth2
Enter the price of the book
420
Enter the number of pages of the book
120
Enter the details of 3 book
Enter the name of the book
book3
Enter the author of the book
auth3
Enter the price of the book
499
Enter the number of pages of the book
299
Details of book 1
Name: book1
Author: auth1
Price: 499
Number of pages: 350
Details of book 2
Name: book2
Author: auth2
Price: 420
Number of pages: 120
Details of book 3
Name: book3
Author: auth3
Price: 499
Number of pages: 299
```

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 contain only the method printArea( ) that prints the area of the given shape.

```
Lab 4
  import java.util.*;
abstract class Shape {
        int length, breadth, radius;
        Scanner input = new Scanner(System.in);
        abstract void printArea();
    }
class Rectangle extends Shape {
        Void printArea() {
          System.out.println("*** Finding Area of Rectangle***");
          System.out.println("Enter length and breadth: ");
          length = input.nextInt();
          breadth = input.nextInt();
        } System.out.println("Area of rectangle is: "+length * breadth);
}
class Triangle extends Shape {
        Void printArea() {
          System.out.println("\n *** finding Area of Triangle***");
          System.out.println("Enter Base and Height: ");
          length = input.nextInt();
          breadth = input.nextInt();
          System.out.println("Area of Triangle is: "+(length *breadth
                                                        /2);
        }
}
```

```
class Circle extends Shape {
    void printArea() {
        System.out.println("\n*** Finding Area of circle ***");
        System.out.println("Enter Radius:");
        radius = input.nextInt();
        System.out.println("The area of the circle is:"
                + 3.14f * radius * radius);
    }
}

Public class AbstractClassMain{
    Public static void main(String[] args) {
        rectangle rec = new Rectangl();
        rec.printArea();
        Circle cir = new circle();
        cir.printArea();
        Triangl tri = new Triangle();
        Tri.printArea();
    }
}
```

```java
import java.util.*;

abstract class Shape {
    int length, breadth, radius;

    Scanner input = new Scanner(System.in);

    abstract void printArea();

}

class Rectangle extends Shape {
    void printArea() {
        System.out.println("*** Finding the Area of Rectangle ***");
        System.out.print("Enter length and breadth: ");
        length = input.nextInt();
        breadth = input.nextInt();
        System.out.println("The area of Rectangle is: " + length * breadth);
    }
}

class Triangle extends Shape {
    void printArea() {
        System.out.println("\n*** Finding the Area of Triangle ***");
        System.out.print("Enter Base And Height: ");
        length = input.nextInt();
        breadth = input.nextInt();
        System.out.println("The area of Triangle is: " + (length * breadth) / 2);
    }
}

class Cricle extends Shape {
    void printArea() {
        System.out.println("\n*** Finding the Area of Cricle ***");
        System.out.print("Enter Radius: ");
        radius = input.nextInt();
        System.out.println("The area of Cricle is: " + 3.14f * radius * radius);
    }
}

public class AbstractClassMain {
    public static void main(String[] args) {
        Rectangle rec = new Rectangle();
        rec.printArea();

        Triangle tri = new Triangle();
        tri.printArea();

        Cricle cri = new Cricle();
        cri.printArea();
    }
}
```

```
C:\Users\91992\Desktop>java AbstractClassMain
*** Finding the Area of Rectangle ***
Enter length and breadth: 10
20
The area of Rectangle is: 200

*** Finding the Area of Triangle ***
Enter Base And Height: 34
23
The area of Triangle is: 391

*** Finding the Area of Cricle ***
Enter Radius: 12
The area of Cricle is: 452.16
```

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

```java
import java.util.Scanner;

abstract class Account {
    String cName, accType;
    long accNo;
    double bal;
    final double minBal = 1000.0;

    Account(String cName, long accNo, double bal, String accType) {
        this.accNo = accNo;
        this.cName = cName;
        this.bal = bal;
        this.accType = accType;
    }

    abstract void addBal(double amt);

    abstract void dispBal();

    abstract void withBal(double amt);
}

class Curr_acct extends Account {
    Curr_acct(String cName, long accNo, double bal) {
        super(cName, accNo, bal, "Current");
        System.out.println("Name: "+cName+"\taccno: "+accNo+"\tbal: "+bal+"\ttype: "+accType);
    }

    void addBal(double amt){
        this.bal  += amt;

    }

    void dispBal(){
        System.out.println("Your balance is: " + this.bal);
    }
    void checkBal() {
        if (this.bal < minBal) {
            System.out.println("Insufficient balance, penalty imposed");
            this.bal -= this.bal * 0.02;
        }
    }

    void withBal(double amt){
        this.bal -= amt;
        checkBal();
    }

}

class Sav_acct extends Account {
    Sav_acct(String cName, long accNo, double bal) {
        super(cName, accNo, bal, "Savings");
        System.out.println("name: " + cName + "\taccno: " + accNo + "\tbal: " + bal + "\ttype: " + accType);
    }

    void addBal(double amt){
```

```java
        this.bal  += amt;
        addIntr();
    }

    void addIntr() {
        this.bal += this.bal * 0.07;
    }

    void dispBal(){
        System.out.println("Your balance is (Including Interest): " + this.bal );
    }


    void withBal(double amt){
        this.bal -= amt;

    }



}

class Bank {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        Double amt;
        System.out.println("Enter your details:");
        System.out.println("Name:");
        String x=sc.next();
        System.out.println("Account Number:");
        long y=sc.nextLong();
        for(;;)
        {
            System.out.println("Type of account:\n1.Current account\n2.Savings account\n3.Exit");
            int t=sc.nextInt();


            if(t==1){
                System.out.println("The current account provides cheque book facility but no interest.");
                Curr_acct c = new Curr_acct(x, y, 50000);
                for(;;)
                {
                    System.out.println("1:Deposit\n2:Display Balance\n3:Withdraw\n4:Exit");
                    int ch = sc.nextInt();

                    switch (ch) {
                        case 1:
                            System.out.println("Enter the amount to be added:");
                            amt = sc.nextDouble();
                            c.addBal(amt);
                            break;

                        case 2:
                            c.dispBal();
                            break;

                        case 3:
                            System.out.println("Enter the amount to be withdrawn:");
                            amt = sc.nextDouble();
                            c.withBal(amt);
                            break;
                        case 4:System.exit(0);
                        default:System.out.println("Invalid choice! Try again");
                    }
                }

            }

            else if(t==2){
                System.out.println("The savings account provides compound interest and withdrawal facilities but no cheque book facility.");
                Sav_acct s = new Sav_acct(x, y, 5000);
                for(;;) {
                    System.out.println("1:Deposit\n2:Display Balance\n3:Withdraw\n4:Exit");
                    int ch = sc.nextInt();
                    switch (ch) {
                        case 1:
                            System.out.println("Enter the amount to be added:");
                            amt = sc.nextDouble();
                            s.addBal(amt);
                            break;

                        case 2:
                            s.dispBal();
                            break;

                        case 3:
                            System.out.println("Enter the amount to be withdrawn:");
                            amt = sc.nextDouble();
                            s.withBal(amt);
                            break;
                        case 4:System.exit(0);
                        default:System.out.println("Invalid choice! Try again");
                    }
                }
            }
            else if(t==3)
                System.exit(0);
            else
                System.out.println("Invalid choice! Try again");


        }
    }
}
```

```
C:\Users\91992\Desktop>java Bank
Enter your details:
Name:
arjun
Account Number:
12
Type of account:
1.Current account
2.Savings account
3.Exit
1
The current account provides cheque book facility but no interest.
Name: arjun     accno: 12       bal: 50000.0    type: Current
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
4

C:\Users\91992\Desktop>java Bank
Enter your details:
Name:
arjun
Account Number:
12
Type of account:
1.Current account
2.Savings account
3.Exit
2
The savings account provides compound interest and withdrawal facilities but no cheque book facility.
name: arjun     accno: 12       bal: 5000.0     type: Savings
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
1
Enter the amount to be added:
5000
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
2
Your balance is (Including Interest): 10700.0
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
```

PROGRAM 6

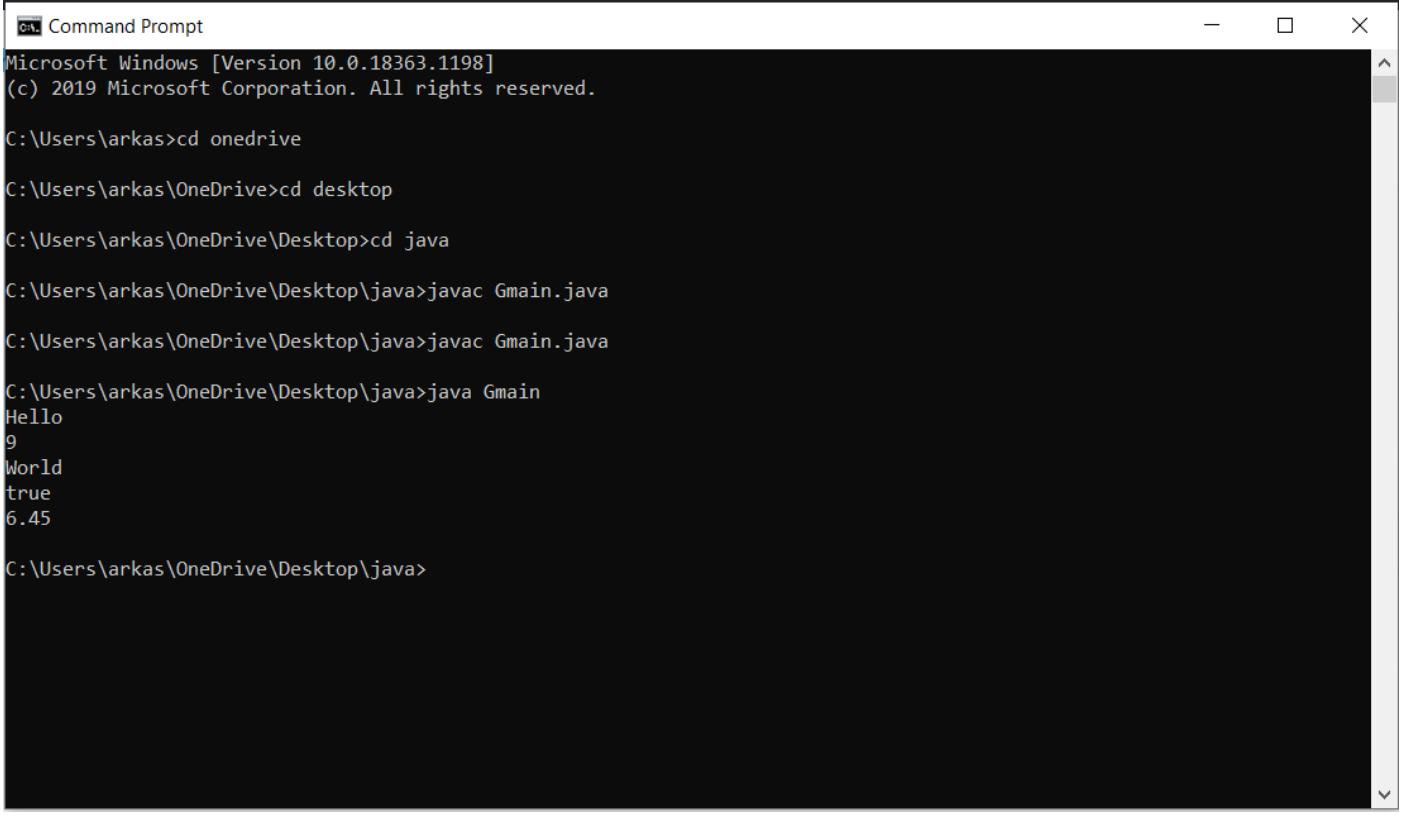
Question-Create a package CIE which has two classes- Student andInternals. Theclass Personal has members like usn, name, sem. Theclass Internals has anarray that stores the internal marks scored in five coursesof the currentsemester of the student. Create another package SEEwhich has the class

External which is a derived class of Student. This classhas an array thatstores the SEE marks scored in five courses of the currentsemester of thestudent. Import the two packages in a file that declaresthe final marks of nstudents in all five courses.

```java
import CIE.*;
import SEE.*;
import java.util.*;
public class pack
{
    public static void main(String args[])
    {
        int n;
        Scanner ss=new Scanner(System.in);
        System.out.println("Enter the number of students:");
        n=ss.nextInt();
        CIE.Student[] st =new CIE.Student[n];
        CIE.Internals[] in =new CIE.Internals[n];
        SEE.Externals[] e =new SEE.Externals[n];
        for(int i=0;i<n;i++)
        {
            st[i]=new CIE.Student();
            st[i].display();
            in[i]=new CIE.Internals();
            in[i].display();
            e[i]=new SEE.Externals();
            e[i].display();
            System.out.println("Total marks of student "+st[i].name+" in 5 subjects are:");
            for(int j=0;j<5;j++)
            {
                System.out.println(in[i].cie_m[j]+(e[i].see_m[j]/2));
            }

        }
    }
}
```

LAB PROGRAM 7Question-Write a program to demonstrate generics with multipleobject parameters.

```java
class Generics<T, U,S,B,D>{
    T o1;
    U o2;
    S o3;
    B o4;
    D o5;
    Generics(T o1, U o2,S o3,B o4,D o5){
        this.o1 = o1;
        this.o2 = o2;
        this.o3 = o3;
        this.o4 = o4;
        this.o5 = o5;
    }
    public void print(){
        System.out.println(o1);
        System.out.println(o2);
        System.out.println(o3);
        System.out.println(o4);
        System.out.println(o5);
    }
}

class Gmain{
    public static void main (String[] args){
        Generics <String,Integer, String, Boolean, Double> o =
            new Generics<String, Integer, String, Boolean, Double>("Hello", 9,"World",true,6.45);

        o.print();
    }
}
```



LAB PROGRAM 8

Question-Write a program that demonstrates handling of exceptionsin inheritance tree. Create a base classcalled "Father"and derived class called "Son" which extends the baseclass. In Father class,implement a constructor whichtakes the age and throws the exception Wrong Age( )when the inputage=father's age.

```java
import java.util.*;

class WrongAge extends Exception
{
        public String toString()
        {
                return "Please enter the correct age:"+"Son's age cannot be greater than Father's age";

        }
}
class Father
{
        int age;
        Father(int age1)
        {
                age=age1;
                System.out.println("Father age:"+age);
        }
}
class Son extends Father
{
        Son(int age2)
        {
                System.out.println("Son age:"+age2);
        }
}
class Agemain1
{
        public static void main(String args[]) throws WrongAge
        {
                Scanner ss=new Scanner(System.in);
                System.out.print("Enter the age of father: ");
                int j=ss.nextInt();
                System.out.print("Enter the age of son: ");
                int k=ss.nextInt();

                if(k>=j)
                {
                        throw new WrongAge();
                }
                else
                {
                        Father f=new Father(j);
                        Son s=new Son(k);
                }
        }
}
```

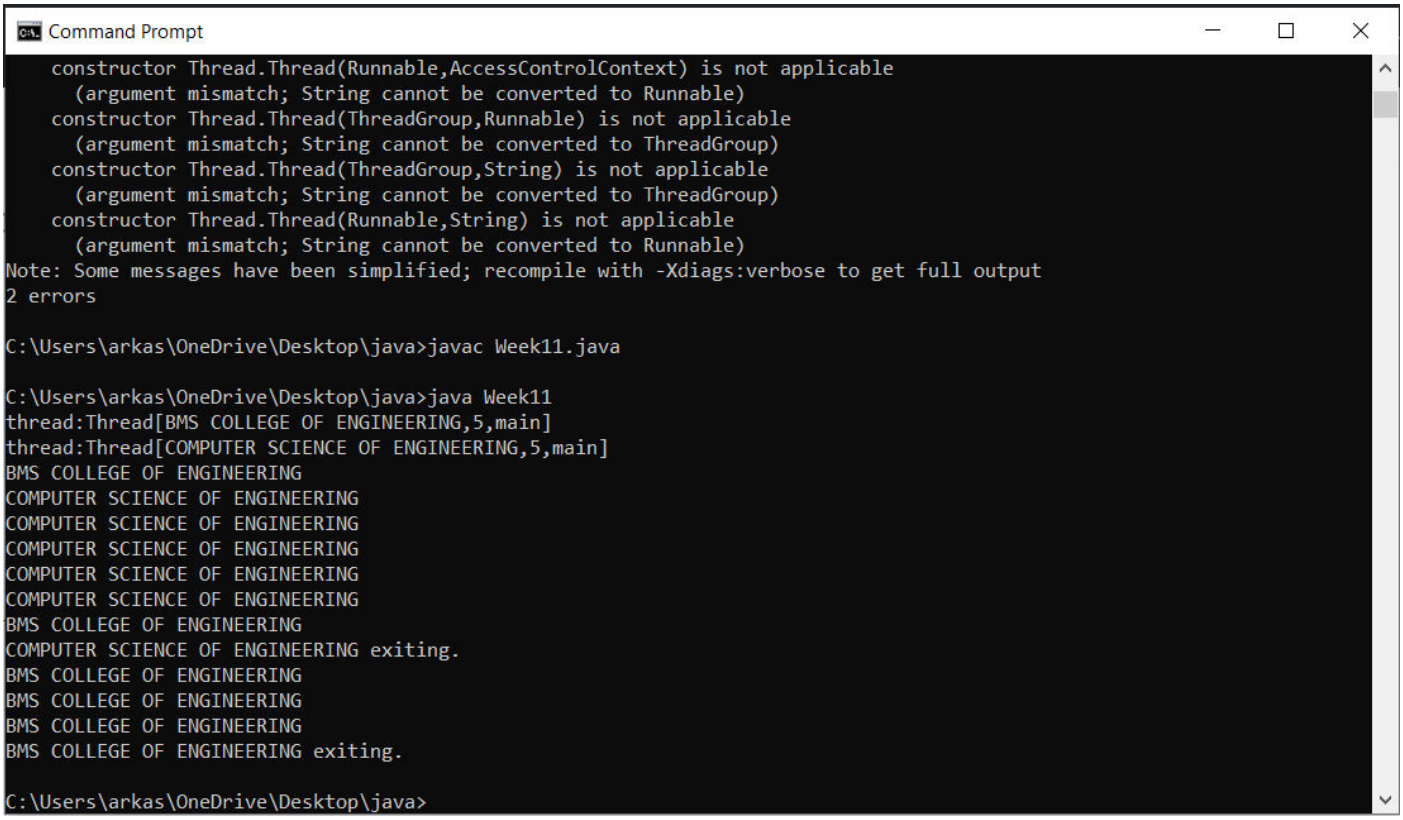
LAB PROGRAM 9

Question-Write a program which creates two threads, one threaddisplaying "BMS College ofEngineering" once every tenseconds and another displaying "CSE" once every twoseconds.

LAB PROGRAM 10

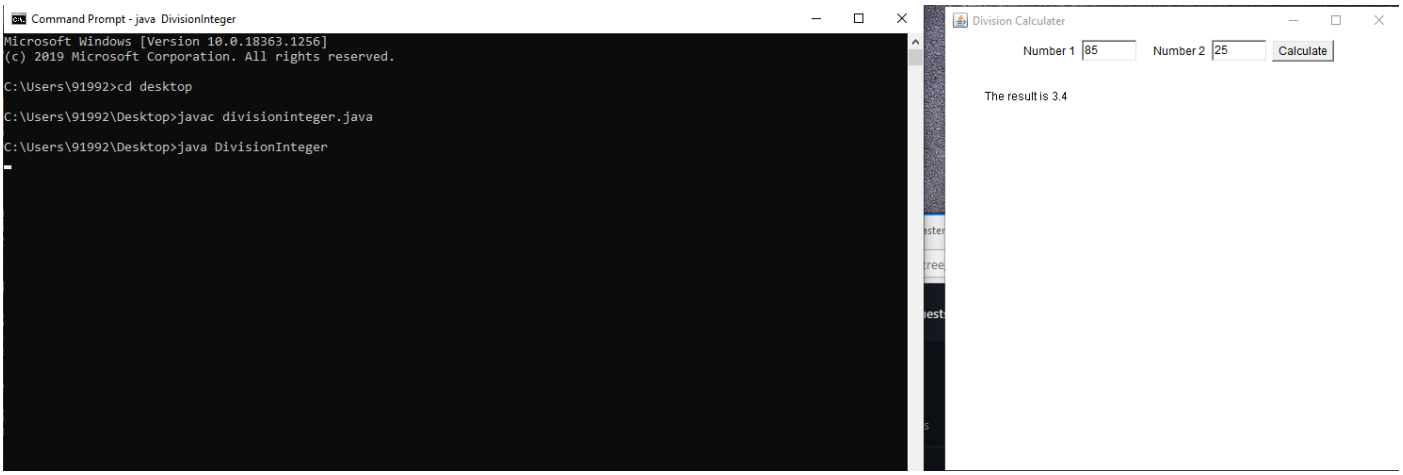
Question-Write a program that creates a user interface to perform integer divisions. The user enters two numbers in the textfields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a NumberFormatException. If Num2 were

```java
class Threadt implements Runnable {
  String name;
  Thread t;
  int time;
  Threadt(String threadname,int time) {
    name = threadname;
    this.time=time;
    t = new Thread(this, name);
    System.out.println("thread:"+ t);
    t.start();
  }
  public void run() {
    try {
      for(int i = 5; i > 0; i--) {
        System.out.println(name);
        Thread.sleep(time);
      }
    } catch (InterruptedException e) {
      System.out.println(name + "Interrupted");
    }
    System.out.println(name + " exiting.");
  }
}
class Week11 {
  public static void main(String args[]) {
    Threadt t1=new Threadt("BMS COLLEGE OF ENGINEERING",10000);
    Threadt t2=new Threadt("COMPUTER SCIENCE OF ENGINEERING",2000);
  }
}
```



Zero, the program would throw anArithmetic Exception Display the exception in a messagedialog box.

```
import java.awt.*;
import java.awt.event.*;
class DivisionInteger extends Frame implements ActionListener{
    TextField num1TextField;
    TextField num2TextField;
    Button calculate;
    int a,b;
    float result;
    String msg="Enter the numbers";
    public DivisionInteger(){

        setLayout(new FlowLayout());

        calculate=new Button("Calculate");
        num1TextField=new TextField(5);
        Label num1Label=new Label("Number 1",Label.RIGHT);
        num2TextField=new TextField(5);
        Label num2Label=new Label("Number 2",Label.RIGHT);

        add(num1Label);
        add(num1TextField);
        add(num2Label);
        add(num2TextField);
        add(calculate);
        num1TextField.addActionListener(this);
        num2TextField.addActionListener(this);
        calculate.addActionListener(this);

        addWindowListener(new MyWindowAdapter());
    }
    public void actionPerformed(ActionEvent ae){
        try{
            result=divideNumbers();
            msg=("The result is "+result);
            repaint();
        }catch(NumberFormatException e){
            msg="Number is not Integer."+e:
47          if(b==0){
48              throw new ArithmeticException();
49          }
50          return (float)a/b;
51      }
52      public void paint(Graphics g){
53          g.drawString(msg,50,100);
54      }
55      public static void main(String args[]){
56          DivisionInteger div=new DivisionInteger();
57          div.setSize(new Dimension(500,500));
58          div.setTitle("Division Calculater");
59          div.setVisible(true);
60      }
61  }
62  class MyWindowAdapter extends WindowAdapter{
63      public void windowClosing(WindowEvent event){
64          System.exit(0);
65      }
66  }
```


Command Prompt - java DivisionInteger
Microsoft Windows [Version 10.0.18363.1256]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\91992>cd desktop
C:\Users\91992\Desktop>javac divisioninteger.java
C:\Users\91992\Desktop>java DivisionInteger
Division Calculater
Number 1
85
Number 2
25
Calculate
The result is 3.4