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.

Develop a Java program that print all
the neal solutions to quadratic equation

axe + bx + c=0, Read a,b,C. If the discriminate

b2-4ac is negative, display there are no
yeal solutions

```
import Java. util. Scanner;
class avadraticEq
    public static void main (string XXCI)
           double a;
           double b;
           double c;
           double most 1, nost 2;
Scanner SS = new Scanner (System.in);
system.out . print (" Enter values of a, b, c");
a = SS. next double();
b = SS. next double();
c = SS. next double();
double determinant = b + b - 4 * a * c
      y (n==0)
      system. out.print (" It is not a quadratic equation")
      else
            y (determinant >0)
                        ((b+ Math. sgrt (determinant))/
                noot 2 = ((-b+ Math. sqrt (determinant))
                                                 2*0);
                System. out. println (" The noot are
                   distinct and neal; "troot 1+" and
                     " + root 2);
```

```
y (deter minant ==0)
                                       gearly story
           noot 1 = 900t2 = -b/2*
           System. out. print (" The swots are egug!
                                            "+ rooti);
         y (determinant <0)
              moot 1 = ((-b + Math. abs (Math. sqxt
                             (determinant))) 12 ka);
              Moot 2 = (1-b-Math.abs (Math.sgrt
                            (determinant ))) 12*a).
              system. out print (" The
                                       noots are
                          Imaginary: "+" i"+ noot 1+ "
                                  +" |"+root 2);
System out print ( It is not a porting committee)
                      y Edelmonnet 20
  (Ethanicales) the Hall + 9) = 1300
  rout 2 = ((-6+ 1412) Spic (determinate))y
         Systems out pointle ("The rest
chistonet and healy "timbelt "and
```

TANK PETERSON STANKE

```
:\Users\Admin\Desktop\1BM21CS011>javac QuadraticEq1.java
:\Users\Admin\Desktop\18M21C5011>javac QuadraticEq1.java
:\Users\Admin\Desktop\18M21C5011>javac QuadraticEq1
rror: Class names, 'QuadraticEq1', are only accepted if annotation processing is explicitly requested
:\Users\Admin\Desktop\1BM21CS011>java QuadraticEq1
rror: Could not find or load main class QuadraticEq1
aused by: java.lang.ClassNotFoundException: QuadraticEq1
:\Users\Admin\Desktop\1BM21CS011>javac QuadraticEq1.java
:\Users\Admin\Desktop\18M21CS011>javac QuadraticEq1.java
:\Users\Admin\Desktop\1BM21CS011>java QuadraticEq1
nter the values of a,b,c0 0 0
t is not a quadratic equation
:\Users\Admin\Desktop\1BM21CS011>1 1
1' is not recognized as an internal or external command,
perable program or batch file.
:\Users\Admin\Desktop\1BM21C5011>111
111' is not recognized as an internal or external command,
perable program or batch file.
:\Users\Admin\Desktop\1BM21CS011>1
1' is not recognized as an internal or external command,
perable program or batch file.
:\Users\Admin\Desktop\1BM21C5011>java QuadraticEq1
nter the values of a,b,c1 1 1
he roots are imaginary:iNaN iNaN
:\Users\Admin\Desktop\1BM21C5011>java QuadraticEq1
nter the values of a,b,c1 4 3
he roots are distinct and real:-1.0and -3.0
:\Users\Admin\Desktop\1BM21CS011>java QuadraticEq1
nter the values of a,b,c0 1 2
t is not a quadratic equation
:\Users\Admin\Desktop\18M21CS011>java QuadraticEq1
nter the values of a,b,c1 1 1
he roots are imaginary:iNaN iNaN
:\Users\Admin\Desktop\18M21CS011>java QuadraticEq1
nter the values of a,b,c4 -4 1
he roots are equal:8.0
:\Users\Admin\Desktop\18M21CS011>javac QuadraticEq1.java
:\Users\Admin\Desktop\1BM21CS011>java QuadraticEq1
nter the values of a,b,c0 2 3
t is not a quadratic equation
:\Users\Admin\Desktop\1BM21CS011>java QuadraticEq1
nter the values of a,b,c1 1 1
he roots are imaginary:i0.3660254037844386 i-1.3660254037844386
:\Users\Admin\Desktop\1BM21CS011>java QuadraticEq1
nter the values of a,b,c4 -4 1
he roots are equal:8.0
:\Users\Admin\Desktop\1BM21C5011>java QuadraticEq1
nter the values of a,b,c1 4 3
he roots are distinct and real:-1.0 and -3.0
:\Users\Admin\Desktop\18M21C5011>
```

| 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. |
|--|
| |
| |
| |

author, price, num-pages. Include a constructor to lamport for your members. Include a constructor to lamport for you members. Include members. Include members for the members. Include members for the object Included to set and get the details of the object Included to strong member that could display the complete details of the book. Develop a Java program to create a book of objects.

Import java. util. Scanner;

class student {

String vsN;

String name;

Int credits[];

double sgpq = 0;

Int crds = 0;

int Totared = 0;

void acceptor (string usn, string name, interedils [], int marks[])s

this. usN = usN;

this. name = hame;

this. credits = orodits;

this. marks = marks

```
student ( mt (red size) §
credits = new int [ credsize];
   pranks = new int [ credsize];
print at Justific of although business to per
  void display() {
     system.out-print (" usn; " + usn + " \n"+"
         name: " + name+ "\n" + sgpn: "+
   Sgpa + " \n");
 Void sg pacale () {
      for ( int i=0; ismarks. length; i++)
  { if (marks [ ] >= 90 ) cris = 10;
            else 4 ( marks [i] > = 80) crts = 9;
            else if (marks[i] >= $0) crs=8;
       else if (marks [i] >= 60) crks=7;
             else if (marks [i] >= so)cols=6;
       else if (marks[i] >= 40) chss;
        else if (marks["] >= 30) cx/sy;
 sgpa t = cvs * credits [i];
  totcred t = credistij* 10;
           Sgpa = (sgpa / tot erad)*10;
```

School and for grantly class lab-35 public static void main (string [] args) Scanner S = new Scanner (system); system.out printin (" Enter the no. int n = S. nextInt(int credits [] = new int [n]; int markst] = new inting; student SI = new student(n) system.out. printin("Enler inc credits of counces; Carl alpert of a Jar (mt i=0; i<n; i+){ credits [:]= S. next InH); rather of Chamberline & all about system.out. print In ("Enteryows USN, name "); string USN = Sinext(); string skiplines = 5. nextline() string name = s. nextline () system. out. printer (" Enter your marks in each subject"

(of for a pay raches) = make

```
for (int i= 0; ikn; itA) {
            system. out. print (" Enter the
                            marks obtained in
      " +i+" course (credits = " + credits [i]+")
          marks [i] = S. next Int();
     SI. acceptor (USN, name, credits, marks);
      SI, sgpacalc();
     s1. dusplay();
      SI. close();
```

```
C:\Users\BMSCECSEIL74\Documents\aadi>java lab_3
Enter the number of courses

Enter the creadits of the courses:

3
3
4
Enter your usn,name
ABHINAU KUMAR
1BM21CS003
Enter your marks in each subject
enter the marks obtained in 0 course (credits= 3):80
enter the marks obtained in 1 course (credits= 3):89
enter the marks obtained in 2 course (credits= 3):93
enter the marks obtained in 3 course (credits= 3):94
enter the marks obtained in 4 course (credits= 4):95
usn:ABHINAU
name:1BM21CS003
sqpa:9.625
```

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 Java program to create n book objects.

```
Lab - program
Import java. util Scanner;
class Book {
    int num_pages;
     double price)
string name thing has male
string author;
29/ 1 / 1300K 11-5
   nom-pages = 0;
                    price = 0:0;
           hame = " some - book ";
                    author = " some_ author";
                       arted purity sidely
BOOK ( Int num-pages, po double price, stringrame,
TOTAL TOTAL
         string author)
      this. num - pages = num- pages:
             this . price = price 1
             this. name = name;
              this, author = author;
AM ESTATE DATE HER SHALL WITHOUT
     void set data ( int num-pages, double prince,
      string name string author)
               this. num-pages = soum-pages;
                this price = pake;
                  this, name = name;
```

```
this author = author;
    Void get-data () S
            System out print In (" BOOK detail in
               rame: " + name + " In author.
             + author +" in number of pages",
          num = pages + " In price " "+
            price );
        system. out. print In (" In ---- m")
   Public string lostning () {
return (" Book delail is name: " + name
               + In author . " + author in no of
               pages " + num-pages +" In
       price: "+ price);
               ranted a sind sigh
              Trible - Strong Supli
     class lab-25
           public static void main (string [ ) args
 will between the contract of the second
( rather porte Book bla = new Book ();
             Scanner 5 = new Scannen (system
                                          . In);
    continues to the continues of
             this for a poster
```

```
system.out. print (" enlor the name of book:"),
 shing name = s. next line();
 system . out , print (" Entos author's nam ', ");
  String author = s. nextlinu();
 system. out. print (" enter the no of pages: ");
    num - pages = s.nex+ Int ();
   system. out. print ("Enter the price ", ")
      double price = s. next double();
      System. out. printin();
    bl. set - data ( num- pages, price, name,
      author >
     book bz = new book (20,87.65, " peception
                point", "Dan Bron");
      bi. get_data();
                              retgions bist
   be get - data();
       system. out . print In ( b1);
         system. out. printin(b2);
          5. Close()
```

```
C:\Program Files\Java\jdk1.8.0_231\bin>java lab_2
eneter the name of the book: dark
eneter the author's name: james
eneter the number of pages in the book: 456
eneter the price of the book: 370
Book details
name: dark
author: james
nmber of pages: 456
price: 370.0
Book details
name: deception point
author: dan brown
nmber of pages: 20
price: 87.65
Book details
name: dark
author: james
nmber of pages: 456
price: 370.0
Book details
name: deception point
author: dan brown
nmber of pages: 20
price: 87.65
```

| 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 program - 4
  Develop a Java program to create abstract class named shap
   contain two integers and an empty method named
   print Area(). Provide three classes named Rectangle, Triang
   and circle such that each one of the classes exlands
   the class shape . Each one of the classes containing it
( method printArea() mat print the area of the give
   import java. util. Scanner ();
    import java lang. Marh. *;
   abstract class shape {
                public inta;
                 public intb;
                abstract public void print Area();
                 Scanners = new Scanner (system.in
   class nectange extends shapes
               public void printareall) &
             System. out. print ("Enter length and
                                   breadsh")
             float a = 5. next float()
              float b = S. next floats;
           . In float area = a* b;
               system. out. println ("Area =
          area + " sq. units");
               Server I for his many that are
           P. William & the Language Children
            Menson of families many
           that would extend the Homes to
```

- 30 CA 19 Aug

```
class tring extends shapef
 public void print Area()
       system out print (" Enter the three sides")
        float a = s. nextfloat();
        1109+ b = S. next/1001();
        1001 c = s. next (100+1);
        1100+ d = (a+b+c)/2;
 double area = Math. sqrt (d*(d*-a).*
                     (d-b)*(d-c));
     system.out, printin ("Area = "+" areat"
                             59. Uniks);
class siguret 1 main (
      public static void main (string angst)
       circle extends shape {
      public vold print Area () {
     System. out. print (" Enter the nadius of
    float a = s. nextfloat()
        float area = 22/7 * a* a;
System. out, printin ("Area = "+ great"
```

```
class figure 2
                        moin of string angel
public static
          shape r = new rectangle ();
          shape t = new mingle ();
           shape c= new circle ();
         for (int i=0, i<100; i++){
   system. out. printles (" In 1) Triangle In 2)
               Rectange (n3) circle
    System.out. prinlin (" Enter your choice;
    Sanner S = new Scanner (system. in);
        mt ch = s, next Ini();
          Switch (ch) {
            case 1: tiprint Area();
              case 2: 8. print Area();
                 break;
              case: c. prin+Areal);
                     break;
             default; system, out, print h
                          ("Invalid choice");
```

```
April to see A sequence of a control
 output
                  the trade made has present the file
                 with a long track that have a profession and appropriate
 1) Triangle
                   highly as to be supported through their
 2) rectangle.
                     the state of the state of the
 3> Crocle
 Enter your chaice i. 1
 Enter three sides of mangle: 45 6
  Area = 9.92156741 59. unils
   1> Triangle
  27 reclarge
   3> Circle
   Enter your choice : 21
   Enter the length and breadth of rectangle; 34 5
    Area = 170.0 squnils
   1> Triangle
   2> rectangle.
37 arch
    Enter your choice: 3
Enter the terradius of circle: 10
     Area = 300.0 sq. units
          tare Africa become hor
```

I watering of a constitution

At Death Designing the second

```
C:\javaprograms>javac figure.java
C:\javaprograms>java figure
1)Triangle
2)Rectangle
3)Circle
Enter your choice:
Enter three sides of triangle: 2 3 5
Area=0.0sq.units
1)Triangle
2)Rectangle
3)Circle
Enter your choice:
Enter length and breadth of rectangle: 2 4
Area=8.0sq.units
1)Triangle
2)Rectangle
3)Circle
Enter your choice:
3
Enter radius of circle: 4
Area=48.0sq.units
1)Triangle
Rectangle
3)Circle
Enter your choice:
```

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 Cur-acct and Sav-acct to make them

more specific to their requirements. Include the necessary methods in order to

achieve the following tasks:

- a) Accept deposit from customer and update the balance.
- b) Display the balance.
- c) Compute and deposit interest
- d) Permit withdrawal and update the balance

Check for the minimum balance, impose penalty if necessary and update the balance.

Q) one saving and other current aci. The saving account provides compound interset and withdrawl but no cheque book, current account provide cheque book facility but no interest current account should hold a min balance below this level change Include necess any methods (a). Accept deposit from customer to display balance, (1) compute and deposit, (d) Permit withdis check for minimum balance and if necessary penalty in update balance. Import Java. util. *; class Bank public string name; public int acc-no; , public float bal; public float si F.S. Shortest public void accept() Scanner 5 = new Scanner Lsystemin systemout print ("In Enter name of the acc holder!) hame = s.next() systemout print ("Enter the account will geo. 15 number: "); acc _no = s. next Int() system.out, print (" Enter the account balance ;");
balance ;"); public void display () system. out. printin (" Details") system. out, printin (" Name! "+ Name In Account number; "+ acc-not"

```
simple - interest ()
            System out print In ( " In Rate of Interest
   Si = (bal *8)/100;
               System. out printin (" simple interest
                              (for one year) = Rs"+s");
class savings extends bonk
           public void cheque ()
                  System. out . printle ("No cheque services")
            public void withdrawall)
              { float amount;
                      Scanner a = new Scanner (system in)
                       System. out. printh (" No minimum
                      system.out. print (" Enter amout
                                to be withdrawn:");
                    amount = a. next float ().
                     if (amount > super. bal)
                 System. out · println (" Balance is insufficient");
```

void

```
super. bal = super, bal- amount
  system. out print In ( amount + "
  system_out.println(" Available balang = "tsuperabal)
  Mariens gras ): Pstress
                        Stated straight specialis
  class current extends wank
                         special dian side.
             , public void cheque()
                     system. out. printin (" Cheques service
                 Collection for silver
                                      owialable ");
              public void withdrawall)
front amount!
                   Scanner a = new scanner (systenia)
Carle Garage
                    Systemout printer (" Minimum
Lieun Catalan and Lange
                                         balance = RS
                                               1000-00"
                    if (super.hal <1000)
        2 Systamout prining (Baland is in Sufficient
                floor service-inange;
service charge = (1* super.bal)/100;
  Superbal = superbal - service - change,
      system.out.printin ("service change of Rs" + service
                                     charge +" is
                              added");
     3 system.out. printin. ( " Available balance = RS"+
                                  superbal);
```

```
else
                                 " Telegraphy - catherin
                systemout print (" Enter amount to be
                                withdrawn; ");
                 amount = a. nox float ();
                   if (amount > (super. bal-1600))
                         system out, printin ("Balance is
              else
                         super.bal = super.bal-amount;
                         system out printin (amount+"
                                                windrawn").
                       System. out, printing 1" Availabane
                      2 . balance = " + super.bal);
                             void main (string args[])
                        savings objI[] = new savings[3];
                        current obj 2[] = new coment[3];
                        system. out. parint (" Enter the
                         Scanner X = new scanner ( systemin).
                          Int n = x. naxtInt()
                          int j = 0
                          intj = v
                          1N7K = 0
                          while (izn)
                         system. but . println ( "\naccount"
                                                  + (i+1))3.
                         system. out. primim (" Ini) Savings
                                            m 2) Comenty);
```

```
system.out.print (" Enter the type of account; 1).
      Int ch = x.nextInt().
       y (ch==1)
               objIcjJanewgavings ();
                  objicj]=.accept();
        obje Ej J. cheque ();
obje Ej J. simple interest ();
                  Obj [ [ ]]. with drawas ();
                  obj 2[K] = new current();
                  objeck) o. accept();
                  objects. display();
                  obj? EKJ. cheque ();
                  obj 2 E.K.J. withdrawl ();
                    K++;
TELLIAVIN ME, FITTING BOOM
```

```
ousput
  Enter the number of account; 1
   Account 1
 1> savings
 27 Current
   Enter the type of account: 1
  Enler the tot name of account holder: Abhi
    Enler the account number: 290478
    Enler the account balance: 7000
   at Details *
     Name : Abhi
     Account number: 2904768
      Balance : 7000.0
      No cheque services
       Rate of interest = 8%
       simple inleast < for one year>= R$ 560.0
       No minimum balance required
        Enter the amount to be withdrawn: 3000
        3000.0 withdraw successfully
        Available balance = 4000.0.
```

```
C:\javaprograms>java Main
Enter the number of accounts: 1
Account 1
1)Savings
2)Current
Enter the type of account: 2
Enter the name of the account holder: abhi
Enter the account number: 129067
Enter the account balance: 12000
*Details*
Name: abhi
Account number: 129067
Balance: 12000.0
Cheque services available
Rate of interest= 8%
Simple interest(for one year)= Rs960.0
Minimun balance= Rs.1000.00
Enter the amount to be withdrawm: 1200
1200.0 withdrawm
Available balance= 10800.0
```

```
Enter the number of accounts: 1
Account 1
1)Savings
2)Current
Enter the type of account: 1
Enter the name of the account holder: kani
Enter the account number: 2980167
Enter the account balance: 2000
*Details*
Name: kani
Account number: 2980167
Balance: 2000.0
No cheque services
Rate of interest= 8%
Simple interest(for one year)= Rs160.0
```

C:\javaprograms>java Main

6) Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception WrongAge() when the input age<0. In Son class, implement a constructor that cases both father and son's age and throws an exception if son's age is >=father's age.

Lab program -6 a) A program that demonstrates handling of exceptions in inheritance tree create a base dass called "Father" and derived class "son" which extends the base class. In Famer class implement a constitut which takes the age and throw the exception. wrong Age() when the input is age < 0. In son class, implement a constructor that cases both father and son's age and throwns an exception 4 son age is >= jathur's age

import java.util. *; reducing thousand class Father Age Exception Extends Exception

& public string tostring () {

return ("Father age less thano")

class sonAge Exception extends Exceptions inta;

son Age Exception Cint age) { a = age;

public string tostning () {. return ("son's age is loss mano"); cise

return ("Son's age is more than Jamer's age")

```
class Famers
        Public intagel;
         Scanner s = new Scanner Coystem.in)
          Jamer () f
                     System.out. printh " Enter Father's
       127 - 4124
                      age 1 = s. next Int();
                void exico mrows Fatheringe Exception {
                          if (agel < 0)
                             throw new James Age Exception
                July - world make it you seems
Class son extends James &
           public int agez;
             son() {
                       system.out.print (" Enter son's age".
                           age 2 = s. next In();
              Void ex2() shrows son Age Exception {
                   4 (age2<0 11 age2 > super.age1)
                       throw new sonAge Exception (age 2);
  Class Father sonf
                Public Static void main (string angs[])

{ son s = new son();
                             51 d. ex 10;
                               y, exico's
                 catch ( Father AgglExceptions)
                         ¿ system.out.println(e); }
              try { 5. ex2(); 3
              calch ( son Age exception e) {
                             System. out.print(e);
```

output

Enter falher's age: -2

Enter son's age: 5

Father age is less than o

Son's age is more man father age

Class Fallory

Enter Jamer's age: 40

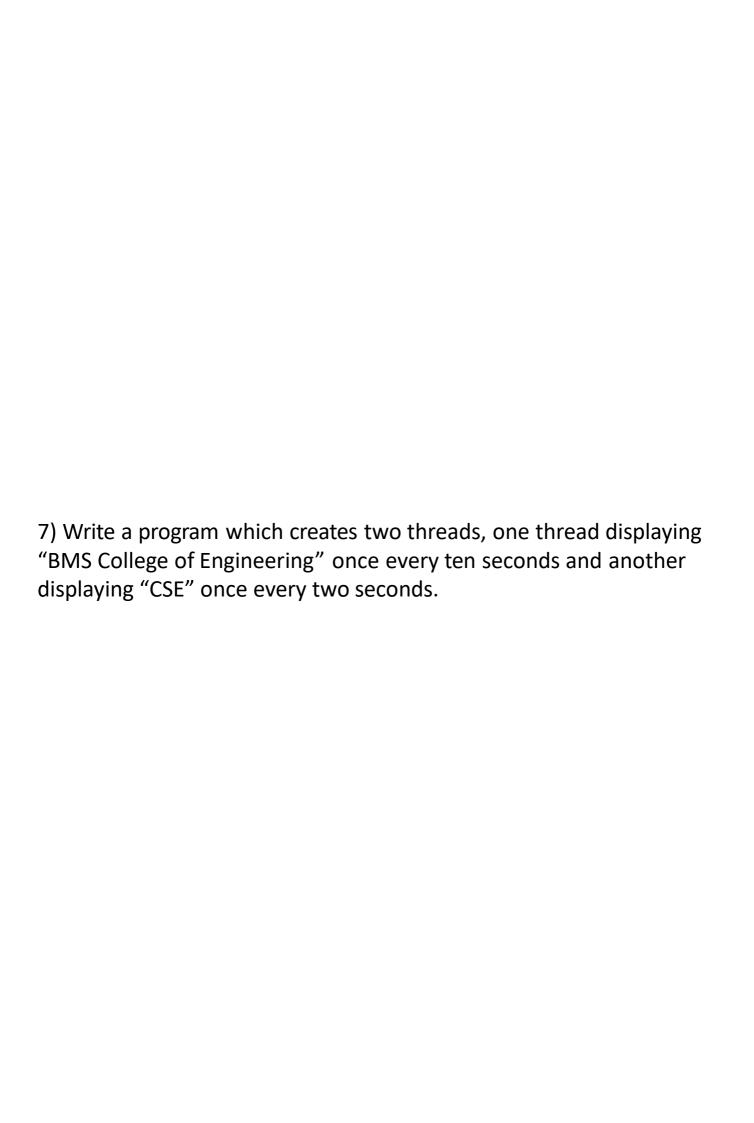
Enter son's age: 50

Son's age is more than Jatheris age

Enter father's age: 40
Enter son's age: 15

Properties of the second of th

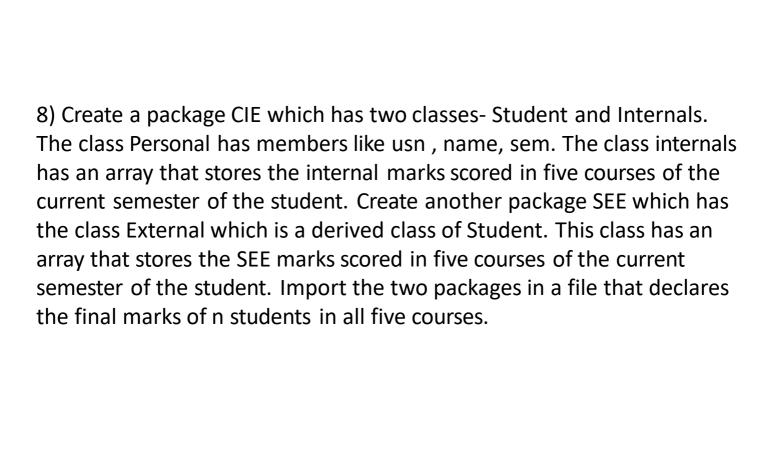
C:\javaprograms>java fatherson Enter father's age: 40 Enter son's age: 15 C:\javaprograms>java fatherson Enter father's age: -3 Enter son's age: 12 Father's age is less than 0 Son's age is more than father's age C:\javaprograms>java fatherson Enter father's age: 30 Enter son's age: 40 Son's age is more than father's age C:\javaprograms>java fatherson Enter father's age: 40 Enter son's age: 40



```
1) Write a program which creates two threads,
  one thread displaying " Bms college of Engineering"
  and every ten seconds and another displaying
  · MCSE" once every two seconds.
   class bms implements Runnable f
A)
              Thread ti:
               bms () $
                     ti = new Thread (this, "bms");
       public void run() {
                10x (int i=5; i >0; i-) {
       Systemout. println (" BMS
       college of Engineering ");
                         Thread , slegep (10000);
                catch (Interrupted Exception e){
                    system.out . printin (" Bms interrupted");
                 System. out. printin ("Eriting:"tt1);
             implements Runnable f
   class
                Thread t2;
               cse() {
                          tz = new Warrord ( this, "(se")
                public void run() {
try &
                               thread sleep(2000);
```

```
catch (Intersupled exception e)
            System.out. printh ("CSE interrupted \no).
             System. out. println ("Exiting"
                   demonth Shares bear to be for the
class inread prg {
                               main (string augs [])
             pussic statu
                     Francis Elson
                         bms obj1 = new bms();
   cse obje = new osl ();
       obji . tl. start ();
                          obj 2. t2. Start();
   output in a value Repaired of Transfers
Bms and a second to a secondary
    CSE ( White I all the formation of the
    CSE
                 the man arrest part
    CSE
    Bms
            Mread Ecse, 5, main)
13 ms
     Bms
     Bm5
     Exiting: Phread [bms, 5, main
    Miller Mary Jon
```

```
C:\Users\BMSCECSEIL74\Desktop\1bm21cs003>java threadprg
BMS College of Engineering
CSE
CSE
CSE
CSE
CSE
BMS College of Engineering
Exiting: Thread[cse.5.main]
BMS College of Engineering
Exiting: Thread[bms.5.main]
C:\Users\BMSCECSEIL74\Desktop\1bm21cs003>
```



Lab program -8

create a packages CIE which has two classes student and Intermals. The class personn! mas members like usn, name, sem. The class internals has an array that stores the internals marks scored in five courses of the current semester of the student.

External which is a derived class of student. This class has an array that stores the SEE marks scored in five cources of the current semester of the student. Import the two packages in a file that declares the final marks of n students in all five cources.

A) public CIE; Import java. util*; public class student.

scanned sc = new Scanned (system. in)

public string us N, name;

public int sem;

public void get data()

System.out.printlin ("Enten usw, nanc and sem"); usn = sc. nextline() name = sc. nextline();

sem = sc. next Int();

Y

```
public void disp () post
                               a pactionary
  CIE which has two stasses
    THE CHUSS PRESCRIPT
                  system out printer ( "Name, " thome)
       system. out. printin ("USN " + USN)
   , Sem. The stass
               system out puntin ("SIEM " + sem)
             market sensester of me shotling.
 compet java " skille" spectrage start trooms
    public class internal extend student
    public class iring speci 22013 Eight trobbys
     Scanner SC= new Scamer Coys
indus on to restances public int rimarks CD = new mt
John still a cit especially out of get datally quit
acclares the Amal marks of is students in
                      { super, getdalac);
                        System. out. pun/line" enter moi
                         for (inti=0, i<5, i+1)
                        { imay hs [i] = sc. next Intl)
                 and of pair.
         public void displa
                       System.out . print L"ZJE mark"
               for (int i=0, ies, i++)
                         System out printer Cimarusti It
                          system.out. printin()
```

```
package SEE;
emport CIE. internal
 import java util +;
 public class external ++++ extends internal
       5
           Scanner sc = new Scanner (system.in);
            public int emarks[] = new int [5]
                public void getdata()
                          super .get data()
                  System out printlin (" Enter 5
                    subject marks for see ");
                 10 (int 1=0,1<5;1++)
                            Emanks [i] =
                                           sc.nextIntly
             public vaid disp()
                         system out print ("See marking)
                          for Cinti=0; i<s, i+t)
                    System, printout. print
(emarks Ei] + "");
                          System.out. print in()
```

```
import (IE · shident;
Import CIE. Internet;
import SEE. external;
  import java. util. x;
 clus exam
        & public static void main ( string augst)
                Stanner SC = new Scanner
                                  ( System. in).
            System. out. println (" Enler number
                    int n = sc. newtint(); of students
                      mit som [] = new intes
                 external etj = new external tj.
      (or (inti=0; i<n; i++)
                     eci) = new externat();
                     c [i] = getdata (1;
       system, out. println ("Final marks of
                               Student + (it) +"
             101 ( int i=g=0, j<5, j++)
                   Sum [i] = c[i]. emarias[j]t
                              C [ ]. marks (1);
                System. out, printin ( Somei J+" ")
```

```
· Output :
Enter student I details
 Enter USN, name and SEM:
 1BM21CS 003
 Abhinav
 3
 Enter RIE marks of 5 subjects:
  40
  70
  50
  60
 80
  Enler SEE marks of 5 subjects;
  70
  60
  35
  45
  Final moorks of student in Student in CIE:
                                            300.
```