```
> Java program to print real solutions of quadratic equi extbx+c=0
  D= b2- 4ac
      import jour util . Scanner;
     class Quadratic &
      public static void main (System in):
      Scanne in = new Scanner (System in);
      double a, b, c, d, x1, x2;
    Sy ctem. out paint en l'enter être value of variable a");
       a = in next Double (1;
     Sy ctem. out, print la ("enter the value of variable b");
      System. out printle ("enter the value of variable (");
        b = in next Double();
         c = in next Double ();
         d= (b*b)-4*a*c;
        ig (d>0)9
         121 = (-b+ Math Squate (d))/(a*2);
          2 = (-b - Math · Squet(d))/(2 *a);
          System.out. printler ("the root, all real and distinct");
          system. oul. painter l'être voots our "+214" and "+ 22);
         else 4 (d==0) {
          System. out-paint lu ("the worth one real and equal");
          System. out-paintle ("the scots one",+11+"and"+12);
           élu. 4(d<0)
           Sy ctem out printen la there are no real roots");
```

Output
enter the value of variable a

2 enter the value of variable b

1 enter the value of variable (
-1

the root on red and dittinct
the root are 0.5 and -1.0

```
LAB-2
  inport Java. util. Scanner;
  dan Studenth
   String un, name,
    Static uit credity [];
     static double marke [];
    void input (int n)
    Sconner Scz new Scenner (System. in),
     System. out. paintle ("enter un and name);
      un = Sc. nextline ();
       noune = 3c. next line();
     System out print lu l'enter the weeks with credits
           of that Subject");
      for (uit i=0; i <n; i++)
          marke[i] = 8c. next Double();
           couldits[i] = Sc. next Eut ();
         System. out. paint ln();
```

```
double calculate (cut n)
  unt (, cred=0;
 double tot, total = 0.0;
  tor (uit i=0; i<n; î++)
    tot = mark [i];
    y (+ot >90)
            c=10;
         elu if (tot > 90)
            c=9:
          eluis (tot) 70)
            C=8;
           elu q (+ot > 60)
            C=7',
            che y (+ot > 50)
              C=6
            du q (tot > 40)
              c=5;
              elu
              C = 0;
       total = total + (c*cuediti(i]);
         eved = coed+ creditili];
        total = total/ cred;
         extrem (total):
```

```
Void display ( with, double total)
 System and print by ("name of standard: "4 neuro);
  System out aprint en l'us n of student : "+ cush);
  System out printler ("neuke et student along with court");
  for ( cut i =0; ( < n; (+1)
   Sydem · out print in (marke [i] +" " + cudity [i]);
   Sy dem out. printle ("sypa of Student!"++otal);
   public static void main (String augs[])
   Scarner BC= new Bearner (System.in),
   Student obj = new Student();
  Sydem out printly ("enter the number of cours");
   int n = Sc. next Tut ():
   cuedite = new wit[n];
   marker = new double [ ]:
    obi . cirput (n);
    double total = obj · Calculate (n);
     obj display (n, total);
Out put
ent en the number of courses
arter usn and name
125
Puneeth
cuter the marks along with endity
  72
   4
  85
   5
```

name of Student: Purelts marke of student along with executive of course usn of Student - 125 72.0 85.0 90.0 of student: 8.916666 Sypa

```
LAB 3
   import jour util . Scanner;
     clau Book &
      String name;
      String author;
       ent peice;
       cut rum_pages;
      Scanner. p = new Scanner (System. in);
      Void details () {
      System. out. printler ("Enter the name of the book");
      name = p. next Line (1);
      System. out, print la l'Enter the name of author);
       author = p. next line();
       System out println ("Enter the price of book");
        · puice = p. nextInt():
        System. out. print ln ("Enter the number of pagets in the bod
        num-pager = p. next Int ();
         public String to Strig(){
          actuen ("name:"+ name+" \n outhor:"+ outhor+" \n puice.
                      + paice + "Innun-pages;"+ nun-pages);
      clan Bk {
      public static void main (String augs []) {
        Scanner q = new Scanner (System, in):
        Book obj[] = new Book [10];
         unt n;
        Sydem out printle l'Enter the number of objects required
          n=q.nextInt();
```

```
for ( wit 1:0; i < 0; i++)
  objeije new Book(),
  doj[1].detuils()
  Sychem. and print le (" "+obs [i] . to string (1);
Output.
 Enter the number of objects required
 Enter name of book
  Enter duther of book
  В
  Enter the puice of book
  Enter the number of pages in the book
   980
  name: A
   autho: B
   puice: 2500
   rum-pages 980
```

```
> Using Abstruct to overlide methods [LAB-4]
   import jora, utd. Scanner;
    abstract clay Shape {
      double dim, dim2;
      Shape (double ds, double dz) f
           dim 1 =d1;
           dimz=dz;
        abstract double print anal);
       class Rectangle extends Shape (
         Rectangle (double d1, double d2) {
           Super (d1, d2);
          double print_aua(){
           utuen dim 1 * dim 2;
        clay tringhe extends Shape {
         Triangle (double d1, double d2){
              Super (d1, d2);
          double print_acea () 4
           utum (dim1*dim2)/2;
```

```
class Circle extends Shape &
  Circle (double d1, double d2) {
   Super (d1,d2)"
                                     and the course of the
   double print_accal) {
    setum 3.14 * dim1 * dim2;
   clau Demoh
    public static void main (String args [ ]) {
          Reitaugle x = new Reitaugle (5,10) &;
          Triangle + = new Toriangle (5/10);
           Circle C = new Circle (5,15);
                            () will have be a probable
            Shapes;
           System out paintles l'The and of Rectaugh: +S. paint aux
   System. out printler ("The area of triangle: + 3. printareal);
   System out println(" The area of Kircle: +5. print-area (1);
  Out put: -
   The area of Rectangl: 50.0
   The area of triangle: 25.0
    The and of circle: 78.5
```

```
LAB-5
=> using A Bank day to derive Sourings and amend accom
     import jour vitil. Scanner;
        Clau Bank &
              public static void main (String args []) {
                   boolean nxt = time
            Scanner sc = new Scanner (System in);
             while (nxt) &
              System. out. paintle ("Eenter 1 for Sawing Account");
             System ail print la C'Enter 2 for 'current de court'");
       Sydem out printer l'Enter the type of auoust");
          int n = Sc. next Int ();
          String s = sc. next Line();
            4(n==1)4
      Sav-acet ob= new Sav-acet ();
              Sydem. Out. plintle ("Enter name");
             ob name = sc. next Line ():
              Sydem out print la ("Enter auout number")
              ob. acono = Sc. next Int():
              Ob. accept Balance ():
               ob. displaye);
               ob. Compute();
               ob. withdraw ():
          du 4
             Com-out ob = new Com-out ().
            System. out. println (" Enter Name");
          ob. name = sc. next line():
           Sy et con. out print bu ("Enter are number");
             ob. acc no= Se. next Int ():
```

```
05. allept Balance ():
 Ob. checkmin ();
  ob. display()!
  ob. withdraw();
System out paintle ("Ente 1 for next contonner, Enter 2 to end");
   ent c = Sc. nextInt();
    ig (c==1)
        continue;
clau Account &
        int au no;
        String outype;
   clue Eurant extende Account &
    double balance;
    Void accept Balance () {
      Scanner Sc = new Scanner (Syctem in);
      System. out. printler ("Enter déposit amount");
     double d = Sc. nextDouble();
        balance+=d;
     void display()4
         System. out. print lu ("Balance: +balance");
      Void withdraw (12
         Scorner SC = new Scorner (System in);
         System out paint la ("Enter the amount to withdraw");
     int 10 = Sc. next Int ()
       System out . printler ("Balance: + balance); }
```

```
Jord check min()4
       if (balance < 500) 4
             balance -= 50;
System out print lu ('Service charge of Rs. 50/- has been imported');
 Sy dem out paint lu Balance after deduction: "+ balance);
   return;
 void chapte ()4
     System. out paint lu (" Nouve: "+ super nouve);
  System. out. println ("Account Number: '+ Super. aueno);
  System. out. println("Balance: "+ balance):
Sy dem out paintle l'Account type ! curent account);
clan Sav-aut extende Account?
      double balance;
       void augt Balance (1) (
         Scourse si= new Scourse (System con) ;
 System. out. print lu ("Enter déposit au bunt");
     double d 2 Sc. nextPouble();
       balance+ = d;
  void display() h
    Sydem. outpaint lu ("Balance: "+ balance);
   void compute () &
      Scanner scanner (System. in);
   System and print la ("Inter duration in monthy");
       ent n = sc. nextInt();
        balance + = (0,025*n);
```

```
void withdraw() {
    Scanner so = new scanere (system.in);
  System out paintly ("Enter amount to withdraw");
     int w= sc. next Int();
       balance = = w;
      System. out. printly ("Balance. "+ balance);
    void ehabk() {
          System out printle ("Nouve + super name):
          Sy dem. out printer ("teant Number, "+ super accus);
        System out puntler ("Balance : 4 balance);
        System and printent "Account type Sources account");
 Out pul.
Ender I for "Souring Account
Enter 2 for " current Account
Ewas type of account
 INA name
 Puneith
 Inter oceanit number
  125
  Enter deposit amount
  125000
  Balance . 125000.0
   Enter Duration in month
   Even amount to withdraw
    23456
   Balance: 101544.4
    Name punelly
   Account Alumber 125
```

Balance 101544 L Howard Type , Savings known

First I for next constance, 2 to early

-3

Ender & for sourcey sceount

Ente 2 for Current Account

Enter type of account

Enter Nound

purut

Evile occ number

15 7

Enter deposit amount

152000

Balance: 152000.0

Enter cumerant to withdraw

32654

Balance - 119346.0

Noune · Puneth

Account number: 157

Balance 119346.0

Acions type: comens account

Ender I for next construen, & to end