```
import java.util.Scanner;
class Quadratic{
public static void main(String srgs[]){
Scanner in=new Scanner(System.in);
double a,b,c,d,x1,x2;
System.out. println("enter the value of variable a");
a=in.nextDouble();
System.out. println("enter the value of variable b");
b=in.nextDouble();
System.out. println("enter the value of variable c");
c=in.nextDouble();
d=(b*b)-4*a*c;
if(d>0)
{
x1=(-b+Math.sqrt(d))/(2*a);
x2=(-b-Math.sqrt(d))/(2*a);
System.out.println("the roots are real and distinct");
System.out.println("the roots are"+x1+"and"+x2);
else if(d==0)
x1=x2=(-b/(2*a));
System.out.println("the roots are real and equal");
System.out.println("the roots are"+x1+"and"+x2);
else if(d<0)
System.out.println("there are no real roots ");
```

```
C:\Users\PUNEETH K>cd C:\Users\PUNEETH K\Desktop\JAVA

C:\Users\PUNEETH K\Desktop\JAVA>javac Quadratic.java

C:\Users\PUNEETH K\Desktop\JAVA>java Quadratic
enter the value of variable a

2
enter the value of variable b

1
enter the value of variable c
-1
the roots are real and distinct
the roots are0.5and-1.0
```

4 (d >0) d - (6*6) - 1*0*C id (0= =0) a (d < 0) System out print (" There is no read & duration or = (-b+ Jd) /(2a) 5 y et en out- puint (+x1+x2) Syctem. out. puint (+x,+x2) 22 = (-b- Jd /@a)

Output

enter the value of variable a

2 enter the value of variable b

1 enter the value of variable c

-1 the rade on real and distinct

the rade on one of and -1.0

```
LAB 1
> Java program to print real solutions of quadratic ego of +bx+c=
  D= 62- 4ac
      amport java util · Scanner;
     class Quadratic ?
      public static void main (System in):
       Scanner in = new Scanner (System in);
       double a, b, c, d, 11, 12;
     System out paint la l'enter the value of variable a");
        a: in next Double (1:
      System. Out. print la ("enter the value of variable 6");
         b = in next Double (1;
       System. out . printle (" entire the value of variable (");
          C = in next Double ();
          d= (b*b)-4*a*c;
         4 (d) 0) 9
          171 1 = (-b+ Math Squate (d))/6 *2);
           n 2 = (-6 - Math squt(d))/(2 +a);
           System out print les ("the root, au real and distinct");
            system . Out painter the noots one "+21+ "and"+x2);
          elle q (d==0) {
           System. out-paint les ("the soots one real and equal");
            System. out. printle ("the roots one"+11+"and"+22);
             elu. 4(d<0)
             Sy ctem out printle (" there are no real roots");
```