LAB-PROGRAM 1 levelop a Java program that prints all real Solutions to the quadratic equation ax2 + bx+c=0 Read in a, b, cand use the quadratic formula.

If the discriminate b2-too is negative, display a message station of that there we overeal Solution. import java. Util. Scammerz, Class and ratic & Public Static Void main (String [ Jargs) & Scaroner S= new Scammer (System in); System. Oct. prient la ("Fortuz theblue a) n'i); double root 1, voot 2; double a = s. next Double (): System out print In ("Frita the Value of b )n'!; double 10 = S. nex + double (); System out printed ("Fontiethovalue of c/n"); double c>s. next double (); double din = (b\*b) -4(a\*c); root 1 = (-6 + Math. say v+ (dis) / (2\*a)); 200+2= (-b - Math sqr + (dis) /(2\*a));

Date_			
Page	11.4.	0 14	_
51	LAS	511	1
ul mo	150	TAC	۵

System out prion + In C" + wo distingt our root 1="+ root 1 + root 2 = "+200+27; ulse iy (dis = = 0) root 1 = root = 2 = -b/(2 = a); System out primt la C'Intuo agual and readroots dxist: root (= " + root 1 + "root2 - "troot2); Eysten. Out print In Civo real Solution exists "); Jugtuo anter the blue of a control the Value of b contro the Value of C

No real Estation arcists

```
quadratic - Notepad
File Edit Format View Help
import java.util.Scanner;
class Ouadratic{
   public static void main(String[]args){
        Scanner s = new Scanner (System.in);
        System.out.println("enter the value of a\n");
       double root1, root2;
        double a = s.nextDouble();
        System.out.println("enter the value of b\n");
       double b = s.nextDouble();
       System.out.println("enter the value of c\n");
       double c = s.nextDouble();
       double dis = (b*b)-(4*a*c);
       if (dis>0)
       { root1 = (-b + Math.sqrt(dis)/(2*a));
           root2 = (-b - Math.sqrt(dis)/(2*a));
           System.out.println("two distinct real roots exits: root1 ="+ root1 +" root2 =" +root2);
       else if (dis==0)
       { root1 = root2 = (-b/(2*a));
           System.out.println("\n two real and equal roots exits: root1 ="+ root1 +" root2 =" +root2);
       else{ System.out.println("\n no real solution exits");
                                                                           Ln 25, Col 2
                                                                                              90%
                                                                                                    Windows (CRLF)
```

Vindows Powershell PS C:\Users\sarayu\Desktop\ooj> javac Quadratic.java
PS C:\Users\sarayu\Desktop\ooj> java Quadratic
enter the value of a enter the value of b enter the value of c 6 no real solution exits PS C:\Users\sarayu\Desktop\ooj>

LAB PRODERTY 1 Algorithm Steps (1) Imput the Value of a, b, c
(2) Calculate d=b\*b-477 a\*c IF (dxo) Display that there are No steal Soln's alony (d=0) Pisplay that Roots are Equal
Calculat M=22 = C-b/2\*a) Display roots are real and Calculat r, = -b+d/2/2 and

r2 = -b - d/2\*a

print r, and r End program algorithm