observation

12/12/23

Develop a java Pgm that (prints all the solution

```
import Java.util.Scanner;
class Quadratic
{
    int a,b,c;
    double r1,r2,d;
    void getd()
    {
        Scanner S = new Scanner(System.in);
        System.out.println("Enter coefficient");
        a = s.nextInt();
        b = s.nextInt();
        c = s.nextInt();
    }
    void compute()
    {
        while(a==0)
        {
            System.out.println("Not a Quad equ");
            System.out.println("Enter value");
            Scanner s= new Scanner(System.in);
            a= s.nextInt();
        }
        d = b*b-4*a*c;
        if(d==0)
        {
            r1 =(-b/2*a);
            System.Out.println("Roots are real&
                                        distinct");
            System.Out.println("Root1=Root2=");
        }
```

```
else if (d > 0)
{
    r1 = ((-b) + (Math.sqrt (d))) / (double)(2*a);
    r2 = ((-b) - (Math.sqrt (d))) / (double)(2*a);
    System.out.println("Roots are real and
                            distinct");
    System.out.println("Root1 ="+r1 + "Root2 ="+r2);
}
else if (d < 0)
{
    System.out.println("Roots are imaginary");
    r1 = (-b)/(2*a);
    r2 = Math.sqrt(-d/(2*a));
    R2 = Math.sqrt(-d)
    System.out.println("Root1 = "+r1 + " +"+ "i"+r2);
    System.out.println("Root2 = "+r2 + "-"+ "i"+r2);
}
}
}

class quadratic main
{
    public static void main (String args[])
    {
        Quadratic q = new Quadratic();
        q.getd();
        q.compute();
        System.out.println(" shree Sudhanva K
                        1BM22CS262 ");
    }
}
```

output
Enter the coefficients

1

3

2

Roots are real and distinct
root I = -1.0   Root 2 = -2.0
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Enter the coefficients

1

2

1

Roots are real and equal
Root1 = Root 2 = -10
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Enter the coefficients

2

1

3

Roots are imaginary
Root1 = 0.0 +i 1.1989578805
Root2 = 0.0 +i 1.1989578808
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