CODE:

```java
import java.util.Scanner;
class Quad
{
        double d, r1, r2;
        Quad(double a, double b, double c)
        {
                if(a==0)
                {
                        System.out.println("Coefficient 'a' can not be zero for this.");
                }
                else
                {
                d = b*b-4*a*c;
                if(d>0)
                {
                        System.out.println("The roots are real and distinct");
                        r1 = (-b+Math.sqrt(d))/(2*a);
                        r2 = (-b-Math.sqrt(d))/(2*a);
                        System.out.println("First root is: " + r1 +"\nSecond Root is: " +r2);
                }
                else if(d==0)
                {
                        System.out.println("The roots are real and equal");
                        r1 = -b/(2*a);
                        System.out.println("The roots are both: " + r1);
                }
                else
                {
                        System.out.println("The roots are imaginary and distinct.");
```

```java
                    r1 = -b/(2*a);

                    r2 = (Math.sqrt(Math.abs(d)))/(2*a);

                    System.out.println("First root is:" + r1 + "+i" + r2);

                    System.out.println("Second root is:" + r1 + "-i" + r2);

            }

        }

    }

}


class Quadratic_Equations

{

    public static void main(String args[])

    {

            System.out.println("Enter your coefficients:\n");

            Scanner ss = new Scanner(System.in);

            Quad One = new Quad(ss.nextInt(), ss.nextInt(), ss.nextInt());

    }

}
```

OUTPUT SCREENSHOT:

```
C:\Users\BMSCECSE\Desktop\1BM21CS246\JAVA>java Quadratic_Equations
Enter your coefficients:

1 -2 1
The roots are real and equal
The roots are both: 1.0

C:\Users\BMSCECSE\Desktop\1BM21CS246\JAVA>javac Quadratic_Equations
error: Class names, 'Quadratic_Equations', are only accepted if annotation processing is explicitly requested
1 error

C:\Users\BMSCECSE\Desktop\1BM21CS246\JAVA>java Quadratic_Equations
Enter your coefficients:

20 1 1
The roots are imaginary and distinct.
First root is:-0.025+i0.22220486043288973
Second root is:-0.025-i0.22220486043288973

C:\Users\BMSCECSE\Desktop\1BM21CS246\JAVA>java Quadratic_Equations
Enter your coefficients:

1 20 1
The roots are real and distinct
First root is: -0.05012562893380057
Second Root is: -19.9498743710662

C:\Users\BMSCECSE\Desktop\1BM21CS246\JAVA>
```