Develop a java program that prints all real solutions to the quadratic equation $ax^2+bx+c=0$. Read in a, b, c and use the quadratic formula. If the discriminant $b^2-4*a*c$ is negative, display a message stating that there are no real solutions.

```java
import java.util.Scanner

class Quadraticequation

{

 public static void main(String args[])

        {

                Scanner input=new Scanner(System.in);

                System.out.println("Enter the value of a:");

                double a=input.nextDouble();

                System.out.println("Enter the value of b:");

                double b=input.nextDouble();

                System.out.println("Enter the value of c:");

                double c=input.nextDouble();


                if(a==0)

        {

                System.out.println("Not possible");

        }

        else

        {

                double d=b*b-4*a*c;

                if(d>0)

        {

                double r1=(-b+Math.sqrt(d))/(2*a);

                double r2=(-b-Math.sqrt(d))/(2*a);

                System.out.println("The roots are real and distinct"+r1+"and"+r2);

        }

        else if(d==0)

        {

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

```java
                System.out.println("The roots are real and equal"+r1+"and"+r1);

        }
        else
        {

                double r1=(-b/2*a);

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

                System.out.println("Roots are distinct and imaginary"+"r1="+r1+"+i"+r2+"r2="+r1+"-i"+r2);

        }
    }
  }
}
```

```
C:\Users\BMSCECSE\Desktop\1BM21CS252>javac Quadraticequation.java

C:\Users\BMSCECSE\Desktop\1BM21CS252>java Quadraticequation
Enter the value of a:
2
Enter the value of b:
5
Enter the value of c:
1
The roots are real and distinct-0.21922359359558485and-2.28077640640044154

C:\Users\BMSCECSE\Desktop\1BM21CS252>java Quadraticequation
Enter the value of a:
2
Enter the value of b:
4
Enter the value of c:
2
The roots are real and equal-1.0and-1.0

C:\Users\BMSCECSE\Desktop\1BM21CS252>java Quadraticequation
Enter the value of a:
1
Enter the value of b:
2
Enter the value of c:
3
Roots are distinct and imaginaryr1=-1.0+i1.4142135623730951r2=-1.0-i1.4142135623730951

C:\Users\BMSCECSE\Desktop\1BM21CS252>java Quadraticequation
Enter the value of a:
0
Enter the value of b:
3
Enter the value of c:
2
Not possible
```