Write a java program to find roots of quadratic equation and print its nature.

import java.util.\*;

class quadratic{

void quadratic1(double a,double b,double c,double d)

{

double r1,r2;

if(d>0.0)

{

r1=(-b+Math.pow(d,0.5))/(2.0\*a);

r2=(-b-Math.pow(d,0.5))/(2.0\*a);

System.out.println("Roots are real "+r1+" "+r2);

}

else if(d<0.0)

{

r1=-b/(2.0\*a);

r2=(Math.pow(-d,0.5))/(2.0\*a);

System.out.println("Roots are imaginary");

System.out.println("Roots are "+r1+ "+i"+r2);

System.out.println(+r1+"-i"+r2);

}

else{

r1=-b/(2.0\*a);

r2=r1;

System.out.println("Roots are equal");

System.out.println("Roots are "+r1+"and"+r2);

}

}

}

class quadratic\_equation{

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

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

double a= sc.nextDouble();

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

double b=sc.nextDouble();

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

double c=sc.nextDouble();

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

quadratic root=new quadratic();

if(a==0.0)

System.out.println("Invalid input");

else

root.quadratic1(a,b,c,d);

}

}







