```
import java.util.Scanner;
class QuadraticEquation
{
    public static void main(String XX[])
    {
      double a;
      double b;
      double c;
      double root1,root2;

      Scanner SS=new Scanner(System.in);
      System.out.print("Enter the values of a,b,c");
      a=SS.nextDouble();
      b=SS.nextDouble();
      c=SS.nextDouble();
      double determinant=b*b-4*a*c;
         {
            if(a==0)
            System.out.print("It is not a quadratic equation");
            elsea
               {
                  if(determinant>0)
                     {
                        root1=((-b+Math.sqrt(determinant))/2*a);
```

```
                root2=((-b-Math.sqrt(determinant))/2*a);
                System.out.print("The roots are distinct and real:"+root1+"and "+root2);
              }
            if(determinant==0)
              {
                root1=root2=-b/2*a;
                System.out.print("The roots are equal:"+root1);
               }
            if(determinant<0)
              {
                root1=((-b+Math.abs(Math.sqrt(determinant)))/2*a);
                root2=((-b-Math.abs(Math.sqrt(determinant)))/2*a);
                System.out.print("the roots are imaginary:"+"i"+root1+" "+"i"+root2);
              }
          }
      }
  }
}
```

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class Quadratic Equation
{
 public static void main (String xx[])
  {
 double a;
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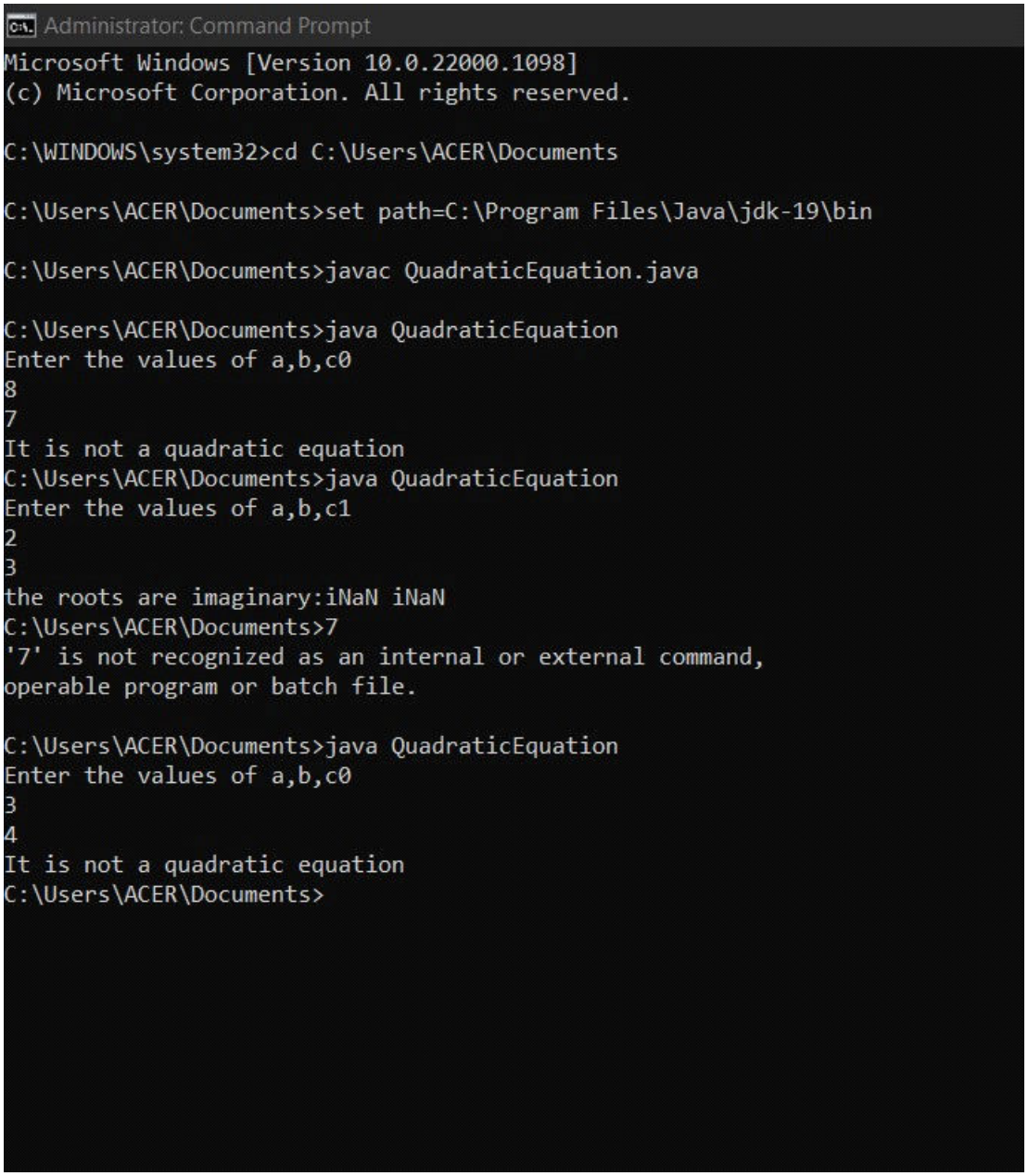
double root1, root2;
Scanner ss = new Scanner (System.in);
System.out.print ("Enter the value of a, b, c");
 a = ss.nextDouble ();
  b = ss.next Double();
  c = ss.next Double();
double determine = b*b-4*a*c;
 {
  if (a==0)
System.out.println ("It is not a quadratic equation");
 else
    {
       if (determinant >0)
         {
  root1 =((-b + Math.sqrt (determinant))/2*a);
 root2 =((-b Math.sqrt (determinant))/2*a);
System.out.println ("The roots are distinct and real:"+root1+
      "and"+root2);
 }
if (determinant == 0)
    {
    root1 = root2 = -b/2*a;
   System.out.print (" The roots are equal :"+root1);
 }
 if (determiant <0)
   {
     root1 = ((-b +Math.sqrt (determinant)))/2*a);
     root2= ((-b -Math.abs (Math.sqrt (determinant)))/2*a);
   System.out.println ("the roots are imaginary :" + "+root1+"
    " + " "+"i" roots);
 }
}
}
}
```


Administrator: Command Prompt
Microsoft Windows [Version 10.0.22000.1098]
(c) Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>cd C:\Users\ACER\Documents
C:\Users\ACER\Documents>set path=C:\Program Files\Java\jdk-19\bin
C:\Users\ACER\Documents>javac QuadraticEquation.java
C:\Users\ACER\Documents>java QuadraticEquation
Enter the values of a,b,c0
8
7
It is not a quadratic equation
C:\Users\ACER\Documents>java QuadraticEquation
Enter the values of a,b,c1
2
3
the roots are imaginary:iNaN iNaN
C:\Users\ACER\Documents>7
'7' is not recognized as an internal or external command,
operable program or batch file.
C:\Users\ACER\Documents>java QuadraticEquation
Enter the values of a,b,c0
3
4
It is not a quadratic equation
C:\Users\ACER\Documents>