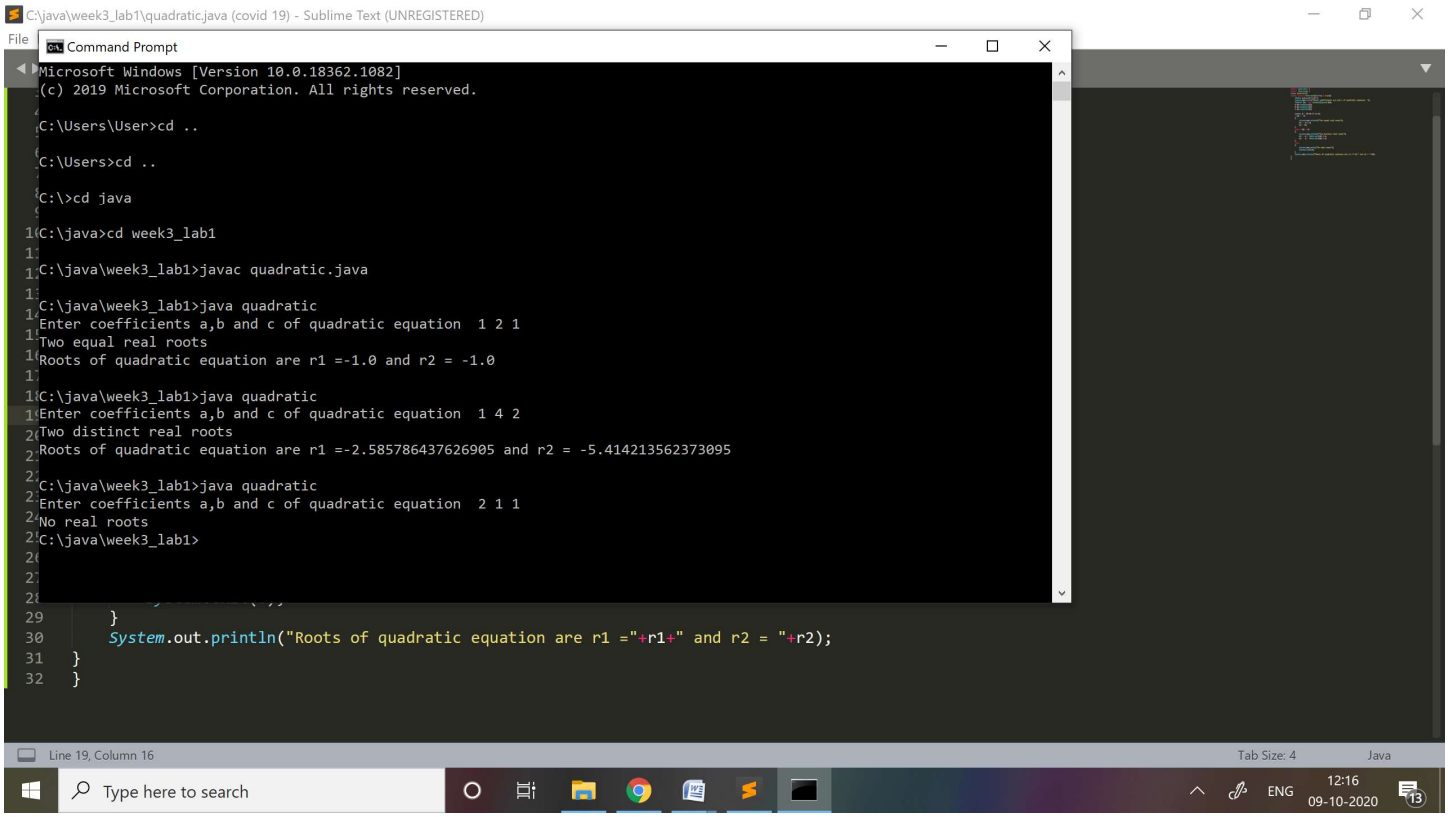
Lab 1:Roots of quadratic equation

```
1. import java.util.*;
import java.lang.*;
class quadratic{
public static void main(String[] args){
        double a,b,c,r1=0,r2=0;
        System.out.print("Enter coefficients a,b and c of quadratic equation  ");
        Scanner in = new Scanner(System.in);
        a=in.nextFloat();
        b=in.nextFloat();
        c=in.nextFloat();

        double d = (b*b)-(4*a*c);
        if(d == 0)
        {
                System.out.println("Two equal real roots");
                r1 = -b/2*a;
                r2 = r1;
        }
  else if(d > 0)
  {
     System.out.println("Two distinct real roots");
     r1 = -b + Math.sqrt(d)/2*a;
     r2 = -b - Math.sqrt(d)/2*a;
  }
  else
  {
        System.out.print("No real roots");
        System.exit(0);
  }
  System.out.println("Roots of quadratic equation are r1 ="+r1+" and r2 = "+r2);
```

```
}

}
```


C:\java\week3_lab1\quadratic.java (covid 19) - Sublime Text (UNREGISTERED)
File
Command Prompt
Microsoft Windows [Version 10.0.18362.1082]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\User>cd ..
C:\Users>cd ..
C:\>cd java
C:\java>cd week3_lab1
C:\java\week3_lab1>javac quadratic.java
C:\java\week3_lab1>java quadratic
Enter coefficients a,b and c of quadratic equation 1 2 1
Two equal real roots
Roots of quadratic equation are r1 =-1.0 and r2 = -1.0
C:\java\week3_lab1>java quadratic
Enter coefficients a,b and c of quadratic equation 1 4 2
Two distinct real roots
Roots of quadratic equation are r1 =-2.585786437626905 and r2 = -5.414213562373095
C:\java\week3_lab1>java quadratic
Enter coefficients a,b and c of quadratic equation 2 1 1
No real roots
C:\java\week3_lab1>
}
System.out.println("Roots of quadratic equation are r1 ="+r1+" and r2 = "+r2);
}
}
Line 19, Column 16
Tab Size: 4
Java
Type here to search
ENG
12:16
09-10-2020