29|09|2020(WEEK 3)

```
import java.io.*;
import java.util.*;
public class QuadEq
{
public static void roots(double a,double b,double c)
{
double d,root1,root2;
if(a==0)
System.out.println("a shouldnt be zero!");
else
{
d=b*b-4*a*c;
if(d>0)
{
root1=(-b+Math.sqrt(d))/(2*a);
root2=(-b-Math.sqrt(d))/(2*a);
System.out.println("Roots are real and unequal");
System.out.println("Root1:");
System.out.printf("%.4f",root1);
```

```
System.out.println("");
System.out.println("Root2:");
System.out.printf("%.4f",root2);

}
if(d==0)
{
System.out.println("Roots are real and equal");
}
else if(d<0)
{
System.out.println("roots are complex and imaginary there are no real solutions.");
}

}
}

public static void main(String[] args)
{
```

```
Scanner scanner=new Scanner(System.in);
System.out.printf("Input the value of a");
double a=scanner.nextDouble();
System.out.printf("Input the value of b");
double b=scanner.nextDouble();
System.out.printf("Input the value of c");
double c=scanner.nextDouble();
roots(a,b,c);
}
}
```