LAB 2 02/10/20

Java program to find roots of quadratic equation

```
import java.util.Scanner;
import static java.lang.Math.*;
class Quadratic
{ public static void main (String args[])
  { Scanner sc = new Scanner (System.in);
    System.out.print ("Enter the value of a:");
    float a = sc.nextFloat();
    System.out.print ("Enter the value of b:");
    float b = sc.nextFloat();
    System.out.print ("Enter the value of c:");
    float c = sc.nextFloat();
    if (a==0)
    { System.out.print ("Invalid! a cannot be zero");
    }
    else{
    float d = b*b - 4*a*c;
    float sqrt_val = (float) Math.sqrt(abs(d));
    float root1 = (-b+sqrt_val)/(2*a);
    float root2 = (-b-sqrt_val)/(2*a);
    if (d==0)
      System.out.print ("Roots are real and equal:"+root1);
    else if (d>0)
    { System.out.print("Roots are real and unique:");
      System.out.print(root1+"\n"+root2);
    }
    else
    { System.out.print ("Roots are imaginary");
      System.out.print (-b/(2*a)+"+i"+sqrt_val);
      System.out.print (-b/(2*a)+"-i"+sqrt_val);
    }
  }
}
```

USN: 1BM19CS127
Name: S Skanda