

Lab - 1

1) Quadratic Equation;

Haushil Doshi
IBN19CS057

```
import java.util.Scanner;  
public class Quadratic {  
    public static void main (String [] args) {  
        Scanner out = new Scanner (System.in);  
        System.out.print ("Input a: ");  
        double a = out.nextDouble();  
        System.out.print ("Input b: ");  
        double b = out.nextDouble();  
        System.out.print ("Input c: ");  
        double c = out.nextDouble();  
  
        double result = b*b - 4.0*a*c;  
        if (result > 0.0) {  
            double r1 = (-b + Math.pow(result, 0.5)) / (2.0*a);  
            double r2 = (-b - Math.pow(result, 0.5)) / (2.0*a);  
            System.out.println ("The roots are " + r1 + " and " + r2);  
        }  
        else if (result == 0.0) {  
            double r1 = -b / (2.0*a);  
            System.out.println ("The roots are equal and real  
and is " + r1);  
        }  
        else {  
            System.out.println ("The equation has no real roots.");  
        }  
    }  
}
```