29/09/2020.

WEEK-3 (LAB)

OOJ. LAB.

(1) Quadratic Eqn. { d>0 d<0 d=0 }

```
import java.util.Scanner;
public class QuadraticEquation {
    private static Scanner sc;
    public static void main (String[] args)
    {
        double a,b,c;
        double root1, root2, imaginary, Discrim;
        sc = new Scanner (System.in);

        System.out.print("Put co-efficients of Q.E");
        a = sc.nextDouble();
        b = sc.nextDouble();
        c = sc.nextDouble();

        discriminant = (b*b) - (4*a*c);

        if (discriminant > 0)
        {
          root1 = (-b + Math.sqrt(discriminant)/(2*a));

          root2 = (-b + Math.sqrt(discriminant)/(2*a));

          System.out.println("\n TWO DISTINCT
                    REAL ROOTS
                    ARE: root1 ="+root1+"
                    and root2 = "+root2+");
        }
```

```
}
else if (discriminant==0)
{
  root1 = root2 = -b/(2*a);
  System.out.println ("\n TWO EQUAL ROOTS:
                       root1: "+root1+" and
                       root2: "+root2);
}
else if (discriminant < 0)
{
   System.out.println ("\n ROOTS ARE NOT
                        REAL");
}
}
```