

LAB - I

MA 12-12-23

classmate

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[1] // Printing Hello world.

```
class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("My name is Raghavendra N");  
        System.out.println("USN is IBM22CS213");  
        System.out.println("Hello World");  
    }  
}
```

Out Put :-

My name is Raghavendra N
USN is IBM22CS213
Hello world

[2] // area of rectangle.

```
class RectangleArea {  
    public public static void main(String args[]) {  
        int length, breadth;  
        length = Integer.parseInt(args[0]);  
        breadth = Integer.parseInt(args[1]);  
  
        int area = length * breadth;  
        System.out.println("length of rectangle  
        = " + length);  
        System.out.println("breadth of  
        rectangle = " + breadth);  
        System.out.println("area of rectangle  
        = " + area);  
    }  
}
```


Output :

length of rectangle = 5

Breadth of rectangle = 3

area of rectangle = 15

[3] // Quadratic

```
import java.util.Scanner;
```

```
class Quadratic
```

```
{
```

```
    int a, b, c;
```

```
    double r1, r2, d;
```

```
    void getd()
```

```
    {
```

```
        Scanner s = new Scanner(System.in);
```

```
        System.out.println("Enter the coefficients  
of a, b, c");
```

```
        a = s.nextInt();
```

```
        b = s.nextInt();
```

```
        c = s.nextInt();
```

```
    }
```

```
    void compute()
```

```
    {
```

```
        while (a == 0)
```

```
        {
```

```
            System.out.println("Not a Quadratic  
equation");
```

```
            System.out.println("Enter a non zero  
value for a:");
```

```
            Scanner s = new Scanner(System.in);
```

```
            a = s.nextInt();
```

```
        }
```



```
d = b * b - 4 * a * c;
```

```
if (d == 0)
```

```
{
```

```
    r1 = (-b) / (2 * a);
```

```
    System.out.println("Roots are real  
and equal");
```

```
    System.out.println("Root 1 = Root 2 = "  
        + r1);
```

```
}
```

```
else if (d > 0)
```

```
{
```

```
    r1 = ((-b) + (Math.sqrt(d))) / (double)  
        (2 * a);
```

```
    r2 = ((-b) - (Math.sqrt(d))) / (double)  
        (2 * a);
```

```
    System.out.println("Roots are real  
and distinct");
```

```
    System.out.println("Root 1 = " + r1 + "  
Root 2 = " + r2);
```

```
}
```

```
else if (d < 0)
```

```
{
```

```
    System.out.println("Roots are  
imaginary");
```

```
    r1 = (-b) / (2 * a);
```

```
    r2 = Math.sqrt(-d) / (2 * a);
```

```
    System.out.println("Root = " + r1 + "  
+ i" + r2);
```

```
    System.out.println("Root 1 = " + r1  
        + " - i" + r2);
```

```
}
```

```
}
```

```
}
```


class Quadratic main

{

public static void main(String
args [])

{

Quadratic q = new Quadratic();
q.getDCI();

q.computeDCI();

}

}

Output :-

My name is Raghavendra . N

USN is 1BM22CS213

enter the coefficient of a, b, c

1

5

3

Root 1 = 0.6972243622680054 and,

Root 2 = 4.3077563331005

[4] // example of Scanner

import java.util.Scanner;

class HelloWorld {

public static void main(String args[])

{

int a; float b; String s;

Scanner in = new Scanner(System.in);

System.out.println("Enter a string");

s = in.nextLine();

System.out.println("You entered string"
+ s);

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```

System.out.println("Enter an integer");
a=in.nextInt();
System.out.println("You entered integer"
                    + a);
System.out.println("Enter a float");
b=in.nextFloat();
System.out.println("You entered
                    float " + b);
    }
}

```

[5] // factorial of a number

```

class factorial {
    public static void main(String args[])
    {
        int fac=1;
        System.out.println("Enter a number:");
        Scanner sc=new Scanner(System.in);
        int n=sc.nextInt();
        for(int i=1; i<=n; i++){
            fac=fac*i;
        }
        System.out.println("the factorial:
                            " + fac);
    }
}

```