Name: Venkata Krishnarjun Vuppala   **Semester**: 6
SRN: PES2UG19CS451   **Section**: G
         Subject: OOAD

Assignment 1

- **Write a program to calculate area of a circle.**

```java
1 package learning;
2
3 import java.util.Scanner;
4
5 public class areaofcircle {
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         System.out.print("Enter the radius of  = ");
9         Scanner sn = new Scanner(System.in);
10        Double radius = sn.nextDouble();
11        Double area = 3.14*radius*radius;
12        System.out.print("Area of circle is = " + area);
13    }
14 }
15
```

Console × Tasks Properties Problems

\<terminated\> areaofcircle (1) [Java Application] C:\Program Files\Java\jdk\bin\javaw.exe (20-Jan-2022, 3:44:50 pm – 3:44:56 pm)

```
Enter the radius of  = 5
Area of circle is = 78.5
```

- **Calculate the slope and intercept of a line y=mx+c, slope m=y2-y1/x2-x1, intercept c=y-mx**

```java
package learning;
import java.util.Scanner;
public class slopeintercept {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        System.out.print("Enter y1  = ");
        Scanner sn1 = new Scanner(System.in);
        float y1 = sn1.nextInt();

        System.out.print("Enter y2  = ");
        Scanner sn2 = new Scanner(System.in);
        float y2 = sn2.nextInt();

        System.out.print("Enter x1  = ");
        Scanner sn3 = new Scanner(System.in);
        float x1 = sn3.nextInt();

        System.out.print("Enter x2  = ");
        Scanner sn4 = new Scanner(System.in);
        float x2 = sn4.nextInt();

        if (x1 == x2)
            System.out.print("Slope is infinity");
        else {
            float slope = (y2-y1)/(x2-x1);
            float intercept = y1 - (slope*x1);
            System.out.println("Slope of line is = "+slope);
            System.out.println("Intercept of line is = "+ intercept);
        }
    }
}
```

Console × Tasks Properties Problems

<terminated> slopeintercept [Java Application] C:\Program Files\Java\jdk\bin\javaw.exe (20-Jan-2022, 4:00:53 pm – 4:00:59 pm)

```
Enter y1  = 3
Enter y2  = 2
Enter x1  = 4
Enter x2  = 1
Slope of line is = 0.33333334
Intercept of line is = 1.6666666
```

- **Find the greatest of 3 numbers (use if elseif else)**

```java
1 /**
4 package learning;
5 import java.util.Scanner;
6
7 public class greaterofthreenums {
8     public static void main(String[] args) {
9         // TODO Auto-generated method stub
10        System.out.print("Enter the first number  = ");
11        Scanner sn1 = new Scanner(System.in);
12        int num1 = sn1.nextInt();
13
14        System.out.print("Enter the second number  = ");
15        Scanner sn2 = new Scanner(System.in);
16        int num2 = sn2.nextInt();
17
18        System.out.print("Enter the third number = ");
19        Scanner sn3 = new Scanner(System.in);
20        int num3 = sn3.nextInt();
21
22        if( num1 >= num2 && num1 >= num3)
23            System.out.println(num1+" is the largest Number");
24
25        else if (num2 >= num1 && num2 >= num3)
26            System.out.println(num2+" is the largest Number");
27
28        else
29            System.out.println(num3+" is the largest Number");
30    }
31
32 }
33
```

Console × Tasks Properties Problems

<terminated> greaterofthreenums [Java Application] C:\Program Files\Java\jdk\bin\javaw.exe (20-Jan-2022, 3:46:38 pm – 3:46:4

```
Enter the first number  = 5
Enter the second number  = 2
Enter the third number = 6
6 is the largest Number
```

- **Print the grade of a student using switch case/ arithmetic operations (+,-,*,/)**

```java
package learning;
import java.util.Scanner;
public class Grade {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        System.out.print("Enter the marks  = ");
        Scanner sn1 = new Scanner(System.in);
        int marks = sn1.nextInt();
        String grade = null;
        switch(marks/10) {

        case 10:
        case 9:
            grade = "S";
            break;
        case 8:
            grade = "A";
            break;
        case 7:
            grade = "B";
            break;
        case 6:
            grade = "C";
            break;
        case 5:
            grade = "D";
            break;
        case 4:
            grade = "E";
            break;
        default:
            grade = "F";
            break;
        }
        System.out.println("Grade = " + grade);
    }
}
```

Console ✕ | Tasks | Properties | Problems

\<terminated\> Grade [Java Application] C:\Program Files\Java\jdk\b

```
Enter the marks  = 65
Grade = C
```

- **find the sum of first 5 nos using while, do while and for loop**

```java
package learning;
import java.util.Scanner;

public class sumoffivenums {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        System.out.print("Enter n   = ");
        Scanner sn1 = new Scanner(System.in);
        int n = sn1.nextInt();

        int sum1 = 0;
        int sum2 = 0;
        int sum3 = 0;
        int j = 1;
        int k = 0;
        for(int i=1;i<=n;++i) {
            sum1 += i;
        }
        while (j<=n) {
            sum2 += j;
            j++;
        }
        do{
            sum3 += k;
            k++;
        }while(k<=n);
        System.out.println("Sum after using for loop = "+sum1);
        System.out.println("Sum after using while loop = "+sum2);
        System.out.println("Sum after using do while loop = "+sum3);
    }
}
```

Console × Tasks Properties Problems

<terminated> sumoffivenums [Java Application] C:\Program Files\Java\jdk\bin\javaw.exe (20-Jan-2022, 5:26:30 pm – 5:26:33 pm)

```
Enter n   = 8
Sum after using for loop = 36
Sum after using while loop = 36
Sum after using do while loop = 36
```