OOP LAB ASSIGNMENT

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BSCS-2C

Task 1:

Write a code to take a number as input from the user and display the square root of that number using a user defined non-static method.

```
Main.java                                    Run        Output                                                 Clear

1                                                       java -cp /tmp/RTY81pMj87 sqr
2 - import java.lang.Math;                              5.4772255750516616.708203932499369
3 - class sqr {                                         7.745966692414834
4      public static void main(String args[])           9.486832980505138
5 -    {
6          double a = 30;
7          System.out.println(Math.sqrt(a));
8          a = 45;
9          System.out.println(Math.sqrt(a));
10         a = 60;
11         System.out.println(Math.sqrt(a));
12         a = 90;
13         System.out.println(Math.sqrt(a));
14     }
15 }
16
```
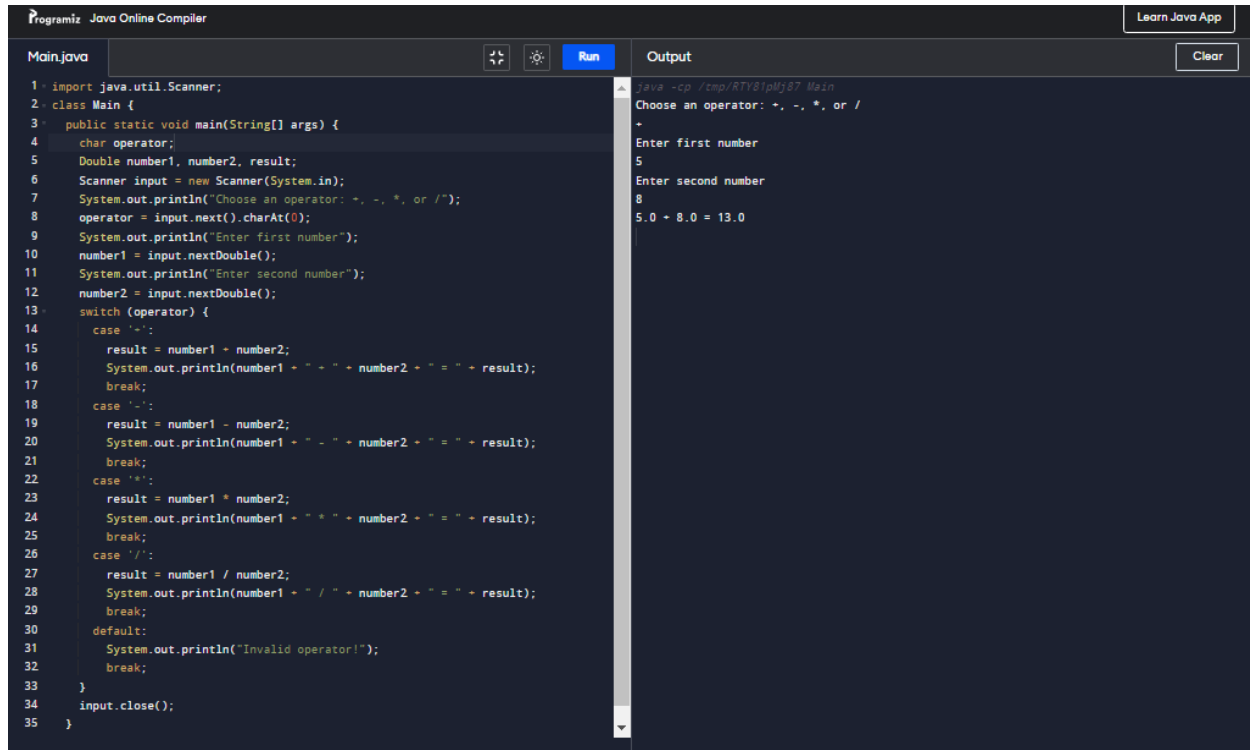
Task 2:

Write a program to take a number as input and print if it is even or odd.

Main.java | Run | Output | Clear

```java
import java.util.Scanner;

public class EvenOdd {
    public static void main(String[] args) {
        Scanner reader = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int num = reader.nextInt();
        if(num % 2 == 0)
            System.out.println(num + " is even");
        else
            System.out.println(num + " is odd");
    }
}
```

```
java -cp /tmp/RTY81pMj87 EvenOdd
Enter a number: 5
5 is odd
```

Task 3:

Write a program to take input from user and make decision for calculation based on input of +,-,*,/.

Main.java   Run   **Output**   Clear

```java
import java.util.Scanner;
class Main {
  public static void main(String[] args) {
    char operator;
    Double number1, number2, result;
    Scanner input = new Scanner(System.in);
    System.out.println("Choose an operator: +, -, *, or /");
    operator = input.next().charAt(0);
    System.out.println("Enter first number");
    number1 = input.nextDouble();
    System.out.println("Enter second number");
    number2 = input.nextDouble();
    switch (operator) {
      case '+':
        result = number1 + number2;
        System.out.println(number1 + " + " + number2 + " = " + result);
        break;
      case '-':
        result = number1 - number2;
        System.out.println(number1 + " - " + number2 + " = " + result);
        break;
      case '*':
        result = number1 * number2;
        System.out.println(number1 + " * " + number2 + " = " + result);
        break;
      case '/':
        result = number1 / number2;
        System.out.println(number1 + " / " + number2 + " = " + result);
        break;
      default:
        System.out.println("Invalid operator!");
        break;
    }
    input.close();
  }
```

Output:
```
java -cp /tmp/RTY81pMj87 Main
Choose an operator: +, -, *, or /
+
Enter first number
5
Enter second number
8
5.0 + 8.0 = 13.0
```