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**Class – FYMCA**

**Division – A, Batch- A1**

**Roll No- 07**

**Subject – Object Oriented Programming.**

**Assignment No – 6**

**Assignment Title -** Write a program in Java to implement a Calculator with simple arithmetic operations such as add, subtract, multiply, divide, factorial etc. using

switch case and other simple java statements. The objective of this

assignment is to learn Constants, Variables, and Data Types, Operators and

Expressions, Decision making statements in Java.

**Input –**

import java.util.Scanner;  
  
public class SimpleCalculator1 {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
  
        System.out.println("Welcome to Simple Calculator");  
        System.out.println("1. Add");  
        System.out.println("2. Subtract");  
        System.out.println("3. Multiply");  
        System.out.println("4. Divide");  
        System.out.println("5. Factorial");  
        System.out.print("Enter your choice: ");  
        int choice = scanner.nextInt();  
  
        switch (choice) {  
            case 1:  
                add(scanner);  
                break;  
            case 2:  
                subtract(scanner);  
                break;  
            case 3:  
                multiply(scanner);  
                break;  
            case 4:  
                divide(scanner);  
                break;  
            case 5:  
                factorial(scanner);  
                break;  
            default:  
                System.out.println("Invalid choice!");  
        }  
  
        // Close scanner after use  
        scanner.close();  
    }  
  
    public static void add(Scanner scanner) {  
        System.out.print("Enter two numbers to add: ");  
        double num1 = scanner.nextDouble();  
        double num2 = scanner.nextDouble();  
        System.out.println("Addition=" + (num1 + num2));  
    }  
  
    public static void subtract(Scanner scanner) {  
        System.out.print("Enter two numbers to subtract: ");  
        double num1 = scanner.nextDouble();  
        double num2 = scanner.nextDouble();  
        System.out.println("Subtraction=" + (num1 - num2));  
    }  
  
    public static void multiply(Scanner scanner) {  
        System.out.print("Enter two numbers to multiply: ");  
        double num1 = scanner.nextDouble();  
        double num2 = scanner.nextDouble();  
        System.out.println("Multiplication=" + (num1 \* num2));  
    }  
  
    public static void divide(Scanner scanner) {  
        System.out.print("Enter two numbers to divide: ");  
        double num1 = scanner.nextDouble();  
        double num2 = scanner.nextDouble();  
        if (num2 != 0) {  
            System.out.println("Division= " + (num1 / num2));  
        } else {  
            System.out.println("Cannot divide by zero!");  
        }  
    }  
  
    public static void factorial(Scanner scanner) {  
        System.out.print("Enter a number to find factorial: ");  
        int num = scanner.nextInt();  
        int factorial = 1;  
        for (int i = 1; i <= num; i++) {  
            factorial \*= i;  
        }  
        System.out.println("Factorial of " + num + " is:= " + factorial);  
    }  
}

Output-

