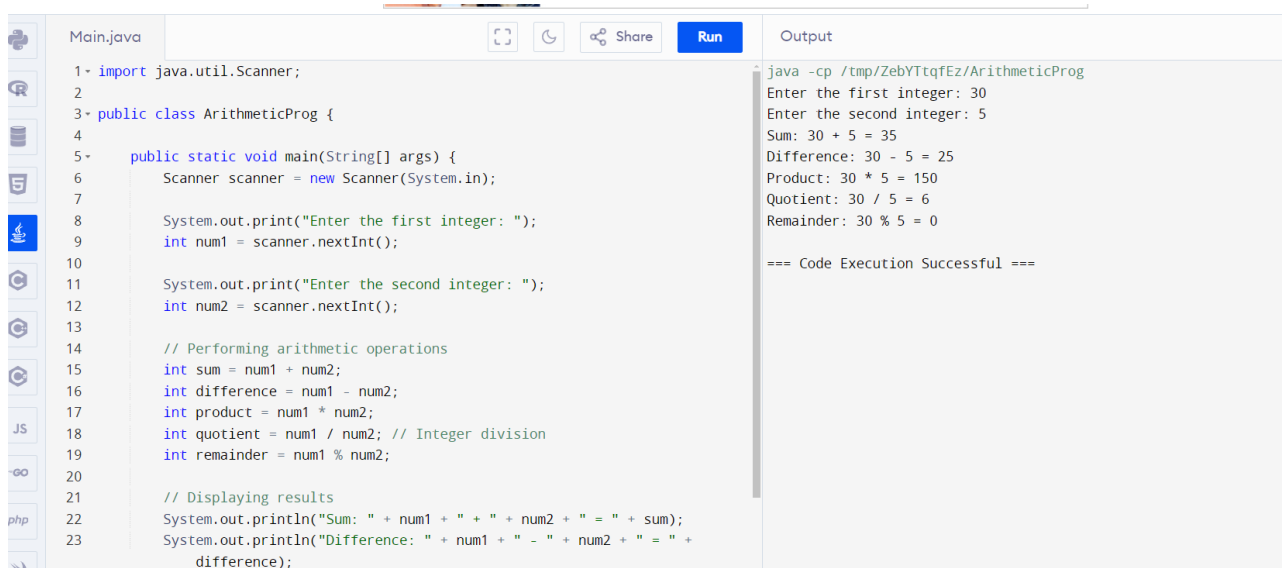


## TASK 1

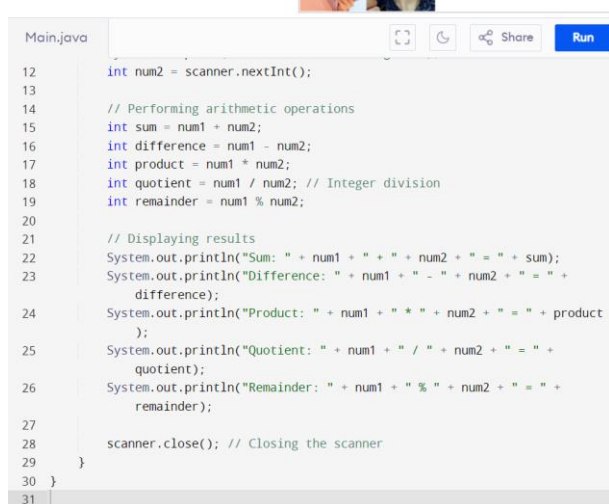


```
1 import java.util.Scanner;
2
3 public class ArithmeticProg {
4
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7
8         System.out.print("Enter the first integer: ");
9         int num1 = scanner.nextInt();
10
11        System.out.print("Enter the second integer: ");
12        int num2 = scanner.nextInt();
13
14        // Performing arithmetic operations
15        int sum = num1 + num2;
16        int difference = num1 - num2;
17        int product = num1 * num2;
18        int quotient = num1 / num2; // Integer division
19        int remainder = num1 % num2;
20
21        // Displaying results
22        System.out.println("Sum: " + num1 + " + " + num2 + " = " + sum);
23        System.out.println("Difference: " + num1 + " - " + num2 + " = " +
            difference);
24    }
25 }
```

Output

```
java -cp /tmp/ZebYTtqfEz/ArithmeticProg
Enter the first integer: 30
Enter the second integer: 5
Sum: 30 + 5 = 35
Difference: 30 - 5 = 25
Product: 30 * 5 = 150
Quotient: 30 / 5 = 6
Remainder: 30 % 5 = 0

=== Code Execution Successful ===
```



```
12 int num2 = scanner.nextInt();
13
14 // Performing arithmetic operations
15 int sum = num1 + num2;
16 int difference = num1 - num2;
17 int product = num1 * num2;
18 int quotient = num1 / num2; // Integer division
19 int remainder = num1 % num2;
20
21 // Displaying results
22 System.out.println("Sum: " + num1 + " + " + num2 + " = " + sum);
23 System.out.println("Difference: " + num1 + " - " + num2 + " = " +
    difference);
24 System.out.println("Product: " + num1 + " * " + num2 + " = " + product
    );
25 System.out.println("Quotient: " + num1 + " / " + num2 + " = " +
    quotient);
26 System.out.println("Remainder: " + num1 + " % " + num2 + " = " +
    remainder);
27
28 scanner.close(); // Closing the scanner
29 }
30 }
31 }
```

## TASK 2

Main.java

Run

```
1- import java.util.Scanner;
2
3- public class InputExp {
4
5-     public static void main(String[] args) {
6
7         String name;
8         int age;
9         String hobby;
10        String favouritefood;
11        Scanner input = new Scanner(System.in);
12
13        System.out.print("Enter your name: ");
14        name = input.nextLine();
15
16        System.out.print("Enter your age: ");
17        age = input.nextInt();
18
19        // Consume the newline character left by nextInt()
20        input.nextLine(); // This line is necessary to move to the next line
21
22        System.out.print("Enter your hobby: ");
23        hobby = input.nextLine();
```

Output

java -cp /tmp/D8TKA0yDns/InputExp  
Enter your name: yan  
Enter your age: 19  
Enter your hobby: futsal  
Enter your favourite food: nasi kandar  
Name: yan  
Age: 19  
Hobby: futsal  
Favourite Food: nasi kandar  
  
=== Code Execution Successful ===

```
24
25        System.out.print("Enter your favourite food: ");
26        favouritefood = input.nextLine();
27
28        input.close(); // Closing the Scanner
29
30        // Outputting the collected information
31        System.out.println("Name: " + name);
32        System.out.println("Age: " + age);
33        System.out.println("Hobby: " + hobby);
34        System.out.println("Favourite Food: " + favouritefood);
35    }
36 }
```

### TASK 3

Main.java

Share

Run

Output

```
1- import java.util.Scanner;
2 import java.time.Year;
3 import java.time.temporal.ChronoUnit;
4
5- public class AgeCalculator {
6
7-     public static void main(String[] args) {
8         Scanner input = new Scanner(System.in);
9
10        // Prompt user for birth year
11        System.out.print("Enter your birth year: ");
12        int birthYear = input.nextInt();
13
14        // Get the current year
15        int currentYear = Year.now().getValue();
16
17        // Calculate age
18        int age = currentYear - birthYear;
19
20        // Display output
21        System.out.println("Your age is: " + age + " years.");
22
23        input.close(); // Closing the Scanner
24    }
25 }
```

```
java -cp /tmp/xIwGIPbnNu/AgeCalculator
Enter your birth year: 2005
Your age is: 19 years.

=== Code Execution Successful ===
```

## TASK 4

```
Main.java
1- import java.util.Scanner;
2
3- public class AverageMarksCalculator {
4
5-     public static void main(String[] args) {
6         Scanner input = new Scanner(System.in);
7
8         // Prompt user for input
9         System.out.print("Enter student's name: ");
10        String name = input.nextLine();
11
12        System.out.print("Enter student's ID: ");
13        String id = input.nextLine();
14
15        System.out.print("Enter subject name: ");
16        String subject = input.nextLine();
17
18        System.out.print("Enter Test 1 score (out of 100): ");
19        double test1 = input.nextDouble();
20
21        System.out.print("Enter Test 2 score (out of 100): ");
22        double test2 = input.nextDouble();
23    }
```

```
Output
java -cp /tmp/Z10FQY06XC/AverageMarksCalculator
Enter student's name: Firhan
Enter student's ID: swe23070253
Enter subject name: OS
Enter Test 1 score (out of 100): 98
Enter Test 2 score (out of 100): 96

Student Information:
Name: Firhan
ID: swe23070253
Subject: OS
Average Mark: 97.0

=== Code Execution Successful ===
```

```
23
24     // Calculate average marks
25     double averageMark = (test1 + test2) / 2.0;
26
27     // Display output
28     System.out.println("\nStudent Information:");
29     System.out.println("Name: " + name);
30     System.out.println("ID: " + id);
31     System.out.println("Subject: " + subject);
32     System.out.println("Average Mark: " + averageMark);
33
34     input.close(); // Closing the Scanner
35 }
36 }
```

## TASK 5



Main.java	Output
<pre>1- import java.util.Scanner; 2 3- public class BMICalculator { 4-     public static void main(String[] args) { 5-         Scanner scanner = new Scanner(System.in); 6 7-         // Prompt the user to enter their weight in kilograms 8-         System.out.print("Enter your berat in kilograms: "); 9-         double weight = scanner.nextDouble(); 10 11-        // Prompt the user to enter their height in meters 12-        System.out.print("Enter your tinggi in meters: "); 13-        double height = scanner.nextDouble(); 14 15-        // Calculate BMI 16-        double bmi = weight / (height * height); 17 18-        // Display the BMI 19-        System.out.printf("Your BMI is: %.2f\n", bmi); 20 21-        // Display the BMI category 22-        if (bmi &lt; 18.5) { 23-            System.out.println("You are underweight."); 24-        } else if (bmi &gt;= 18.5 &amp;&amp; bmi &lt; 24.9) {</pre>	<pre>java -cp /tmp/a8H5Zq35fw/BMICalculator Enter your berat in kilograms: 55 Enter your tinggi in meters: 1.67 Your BMI is: 19.72 You have a normal weight.  === Code Execution Successful ===</pre>

```
25-         System.out.println("You have a normal weight.");
26-     } else if (bmi >= 25 && bmi < 29.9) {
27-         System.out.println("You are overweight.");
28-     } else {
29-         System.out.println("You are obese.");
30-     }
31
32-     scanner.close();
33- }
34- }
35
```

## TASK 7

```
Main.java
1+ public class CompoundProg {
2
3+ public static void main(String[] args) {
4    // Initialize a variable x with a value of 10
5    int x = 10;
6    int y;
7
8    // Pre-increment: ++x
9    // Increments x by 1, then returns x
10   y = ++x;
11   System.out.println("Pra penyusutan (++x):");
12   System.out.println("x: " + x); // x is now 11
13   System.out.println("y: " + y); // y is assigned the value 11
14
15   // Reset x to 10
16   x = 10;
17
18   // Post-increment: x++
19   // Returns x, then increments x by 1
20   y = x++;
21   System.out.println("Selepas penyusutan (x++):");
22   System.out.println("x: " + x); // x is now 11
23   System.out.println("y: " + y); // y is assigned the value 10
24
Output
java -cp /tmp/0aCQpAbXaa/CompoundProg
Pra penyusutan (++x):
x: 11
y: 11
Selepas penyusutan (x++):
x: 11
y: 10
Pra peningkatan (--x):
x: 9
y: 9
Selepas peningkatan (x--):
x: 9
y: 10
=== Code Execution Successful ===
```

```
24
25    // Reset x to 10
26    x = 10;
27
28    // Pre-decrement: --x
29    // Decrements x by 1, then returns x
30    y = --x;
31    System.out.println("Pra peningkatan (--x):");
32    System.out.println("x: " + x); // x is now 9
33    System.out.println("y: " + y); // y is assigned the value 9
34
35    // Reset x to 10
36    x = 10;
37
38    // Post-decrement: x--
39    // Returns x, then decrements x by 1
40    y = x--;
41    System.out.println("Selepas peningkatan (x--):");
42    System.out.println("x: " + x); // x is now 9
43    System.out.println("y: " + y); // y is assigned the value 10
44 }
45 }
46
```