TASK 1

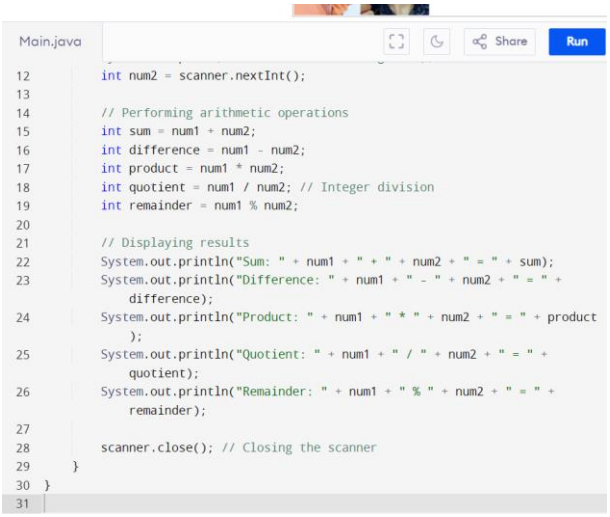
Main.java

Share Run

```java
import java.util.Scanner;

public class ArithmeticProg {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the first integer: ");
        int num1 = scanner.nextInt();

        System.out.print("Enter the second integer: ");
        int num2 = scanner.nextInt();

        // Performing arithmetic operations
        int sum = num1 + num2;
        int difference = num1 - num2;
        int product = num1 * num2;
        int quotient = num1 / num2; // Integer division
        int remainder = num1 % num2;

        // Displaying results
        System.out.println("Sum: " + num1 + " + " + num2 + " = " + sum);
        System.out.println("Difference: " + num1 + " - " + num2 + " = " +
            difference);
```

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 ===
```

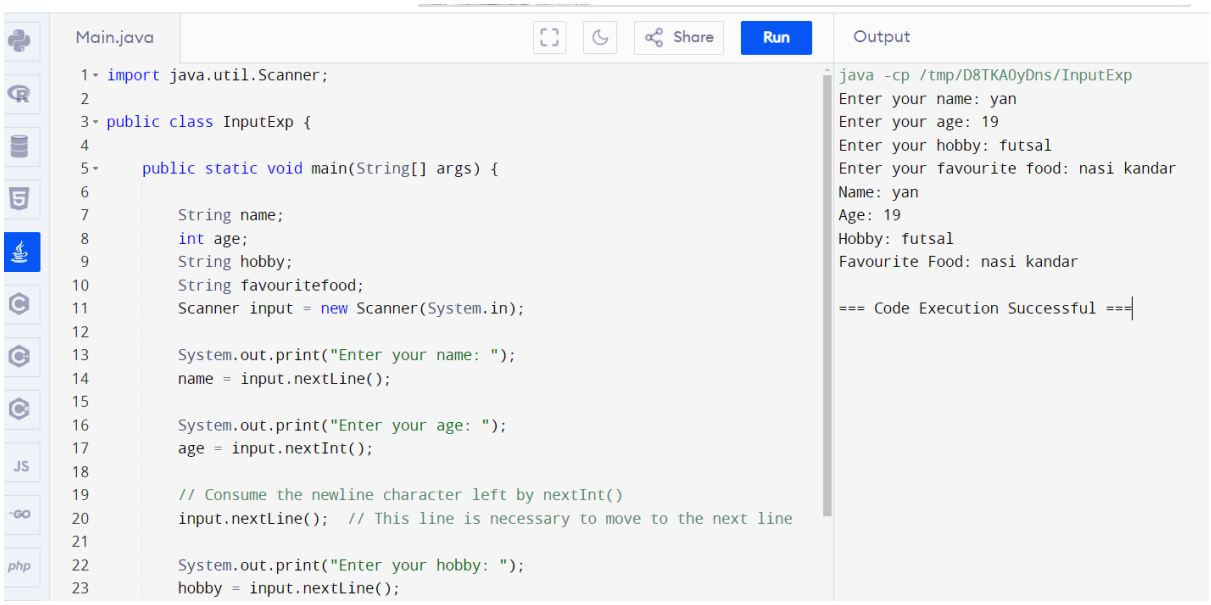


Main.java

Share Run

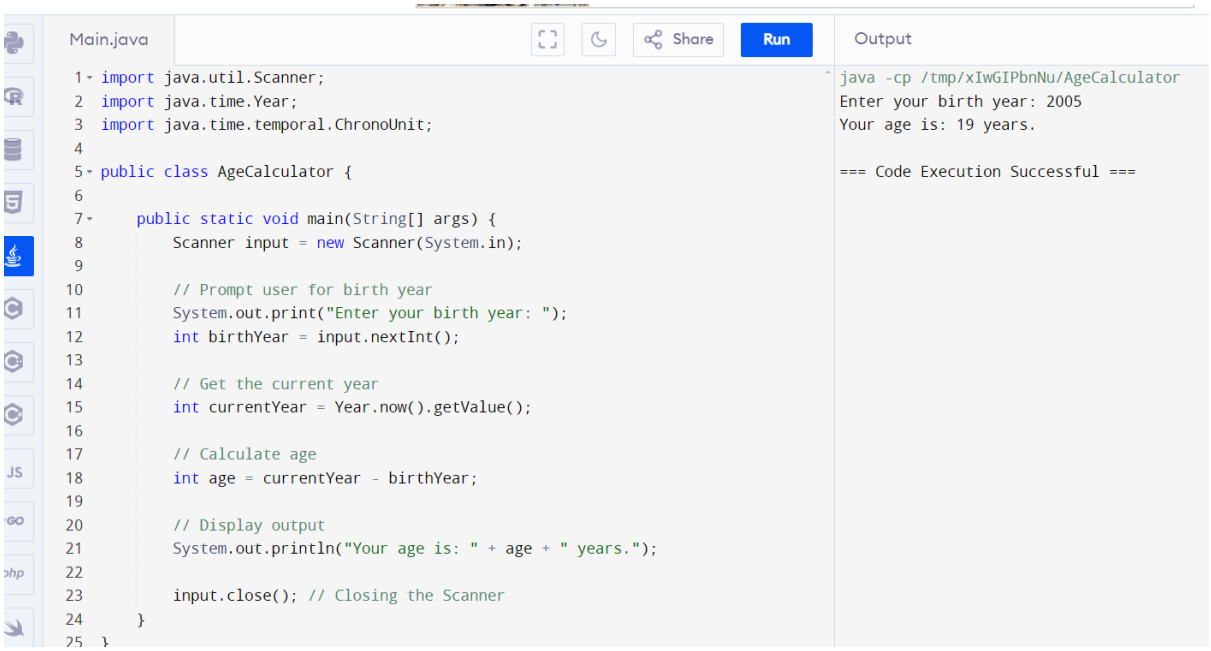
```java
        int num2 = scanner.nextInt();

        // Performing arithmetic operations
        int sum = num1 + num2;
        int difference = num1 - num2;
        int product = num1 * num2;
        int quotient = num1 / num2; // Integer division
        int remainder = num1 % num2;

        // Displaying results
        System.out.println("Sum: " + num1 + " + " + num2 + " = " + sum);
        System.out.println("Difference: " + num1 + " - " + num2 + " = " +
            difference);
        System.out.println("Product: " + num1 + " * " + num2 + " = " + product
            );
        System.out.println("Quotient: " + num1 + " / " + num2 + " = " +
            quotient);
        System.out.println("Remainder: " + num1 + " % " + num2 + " = " +
            remainder);

        scanner.close(); // Closing the scanner
    }
}
```

TASK 2

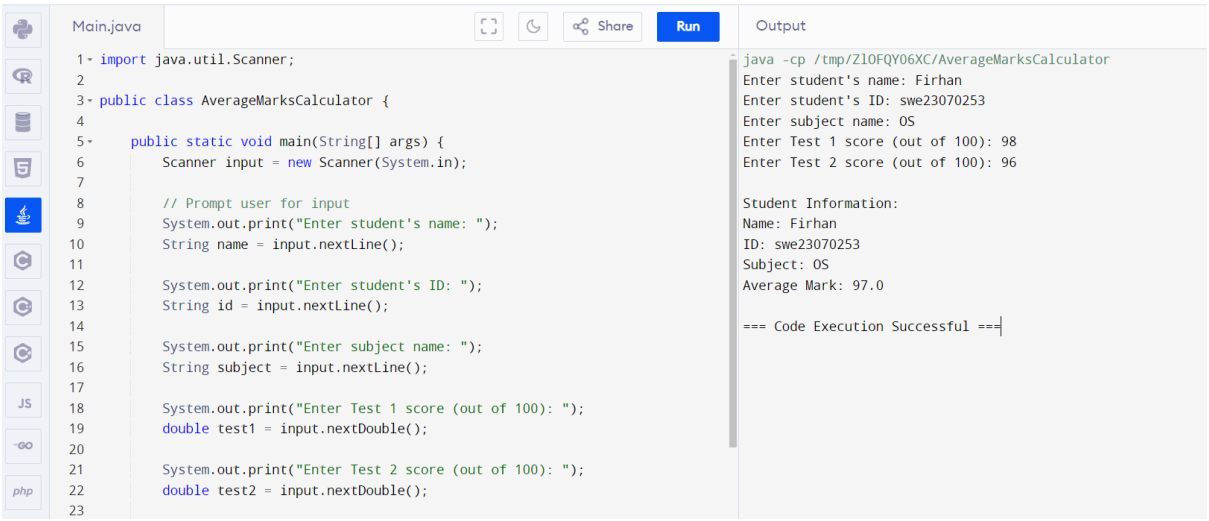



```
        System.out.print("Enter your favourite food: ");
        favouritefood = input.nextLine();

        input.close();  // Closing the Scanner

        // Outputting the collected information
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        System.out.println("Hobby: " + hobby);
        System.out.println("Favourite Food: " + favouritefood);
    }
}
```

TASK 3

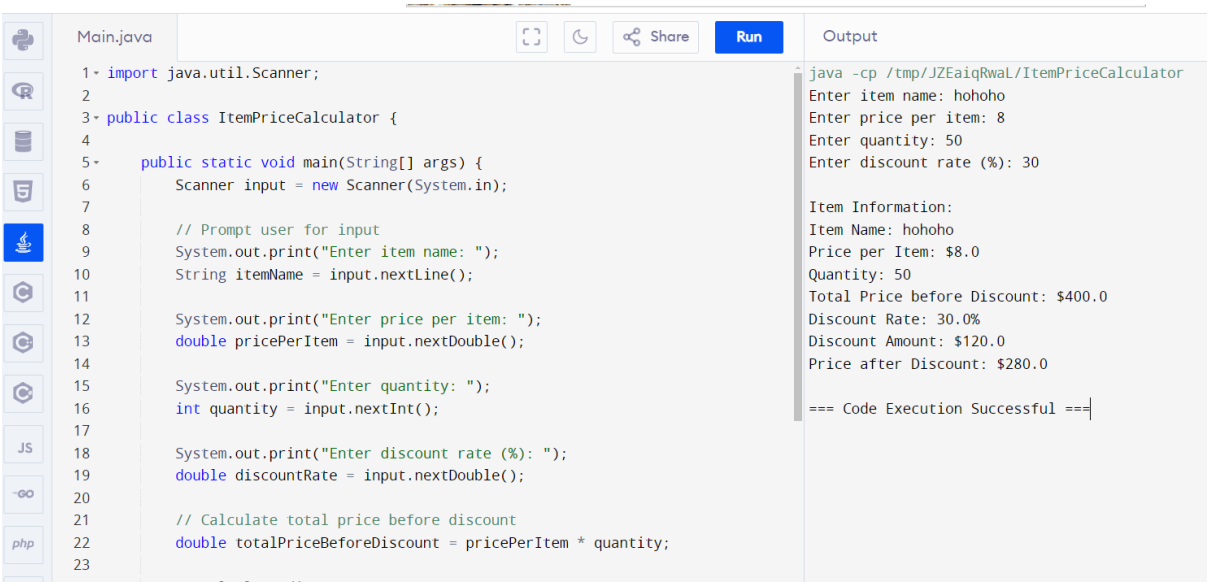

Main.java
Share
Run
Output
import java.util.Scanner;
import java.time.Year;
import java.time.temporal.ChronoUnit;
public class AgeCalculator {
public static void main(String[] args) {
Scanner input = new Scanner(System.in);
// Prompt user for birth year
System.out.print("Enter your birth year: ");
int birthYear = input.nextInt();
// Get the current year
int currentYear = Year.now().getValue();
// Calculate age
int age = currentYear - birthYear;
// Display output
System.out.println("Your age is: " + age + " years.");
input.close(); // Closing the Scanner
}
}
java -cp /tmp/xIwGIPbnNu/AgeCalculator
Enter your birth year: 2005
Your age is: 19 years.
=== Code Execution Successful ===

TASK 4



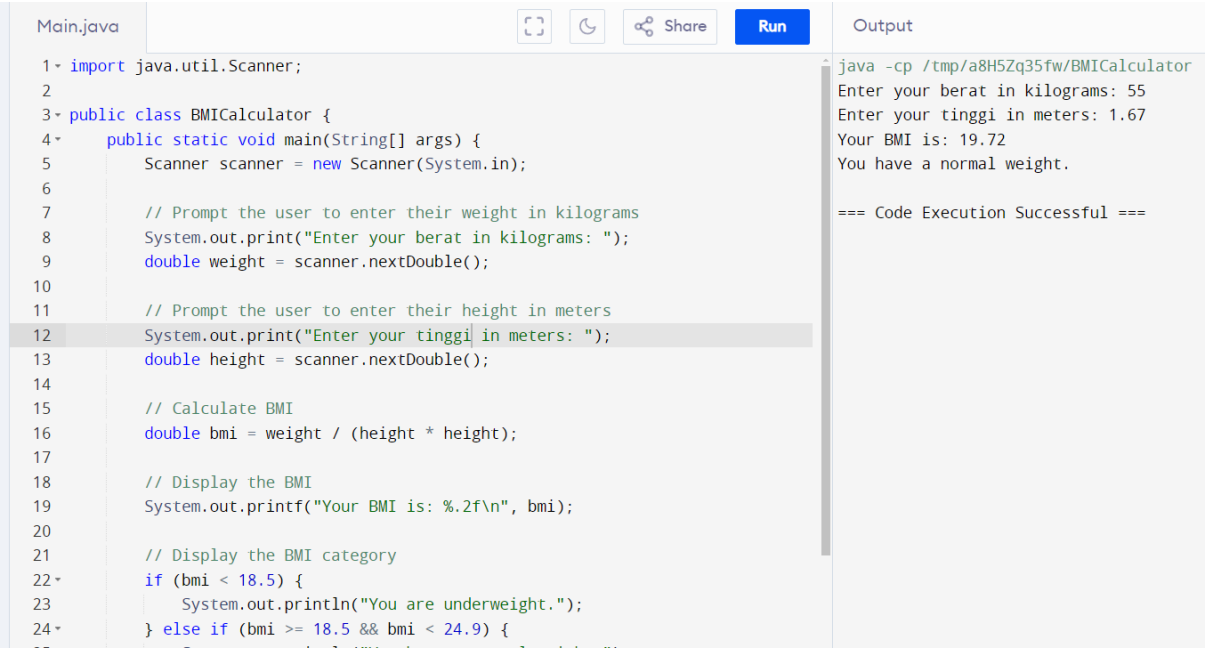

```
        // Calculate average marks
        double averageMark = (test1 + test2) / 2.0;

        // Display output
        System.out.println("\nStudent Information:");
        System.out.println("Name: " + name);
        System.out.println("ID: " + id);
        System.out.println("Subject: " + subject);
        System.out.println("Average Mark: " + averageMark);

        input.close(); // Closing the Scanner
    }
}
```

TASK 5




```
        // Calculate discount amount
        double discountAmount = (discountRate / 100) * totalPriceBeforeDiscount
            ;

        // Calculate price after discount
        double priceAfterDiscount = totalPriceBeforeDiscount - discountAmount;

        // Display output
        System.out.println("\nItem Information:");
        System.out.println("Item Name: " + itemName);
        System.out.println("Price per Item: $" + pricePerItem);
        System.out.println("Quantity: " + quantity);
        System.out.println("Total Price before Discount: $" +
            totalPriceBeforeDiscount);
        System.out.println("Discount Rate: " + discountRate + "%");
        System.out.println("Discount Amount: $" + discountAmount);
        System.out.println("Price after Discount: $" + priceAfterDiscount);

        input.close(); // Closing the Scanner
    }
}
```

TASK 6




```
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

Share | Run | Output

```java
public class CompoundProg {

    public static void main(String[] args) {
        // Initialize a variable x with a value of 10
        int x = 10;
        int y;

        // Pre-increment: ++x
        // Increments x by 1, then returns x
        y = ++x;
        System.out.println("Pra penyusutan (++x):");
        System.out.println("x: " + x); // x is now 11
        System.out.println("y: " + y); // y is assigned the value 11

        // Reset x to 10
        x = 10;

        // Post-increment: x++
        // Returns x, then increments x by 1
        y = x++;
        System.out.println("Selepas penyusutan (x++):");
        System.out.println("x: " + x); // x is now 11
        System.out.println("y: " + y); // y is assigned the value 10

        // Reset x to 10
        x = 10;

        // Pre-decrement: --x
        // Decrements x by 1, then returns x
        y = --x;
        System.out.println("Pra peningkatan (--x):");
        System.out.println("x: " + x); // x is now 9
        System.out.println("y: " + y); // y is assigned the value 9

        // Reset x to 10
        x = 10;

        // Post-decrement: x--
        // Returns x, then decrements x by 1
        y = x--;
        System.out.println("Selepas peningkatan (x--):");
        System.out.println("x: " + x); // x is now 9
        System.out.println("y: " + y); // y is assigned the value 10
    }
}
```

```
java -cp /tmp/OaCQpAbXaa/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 ===
```