

**Experiment No. 03**  
**Experiment Name: Implementation of Loops and IO**

*Course title: Programming Language II(Java) Lab*  
*Course code:*  
*Spring 2025*

**Date of Submission:**

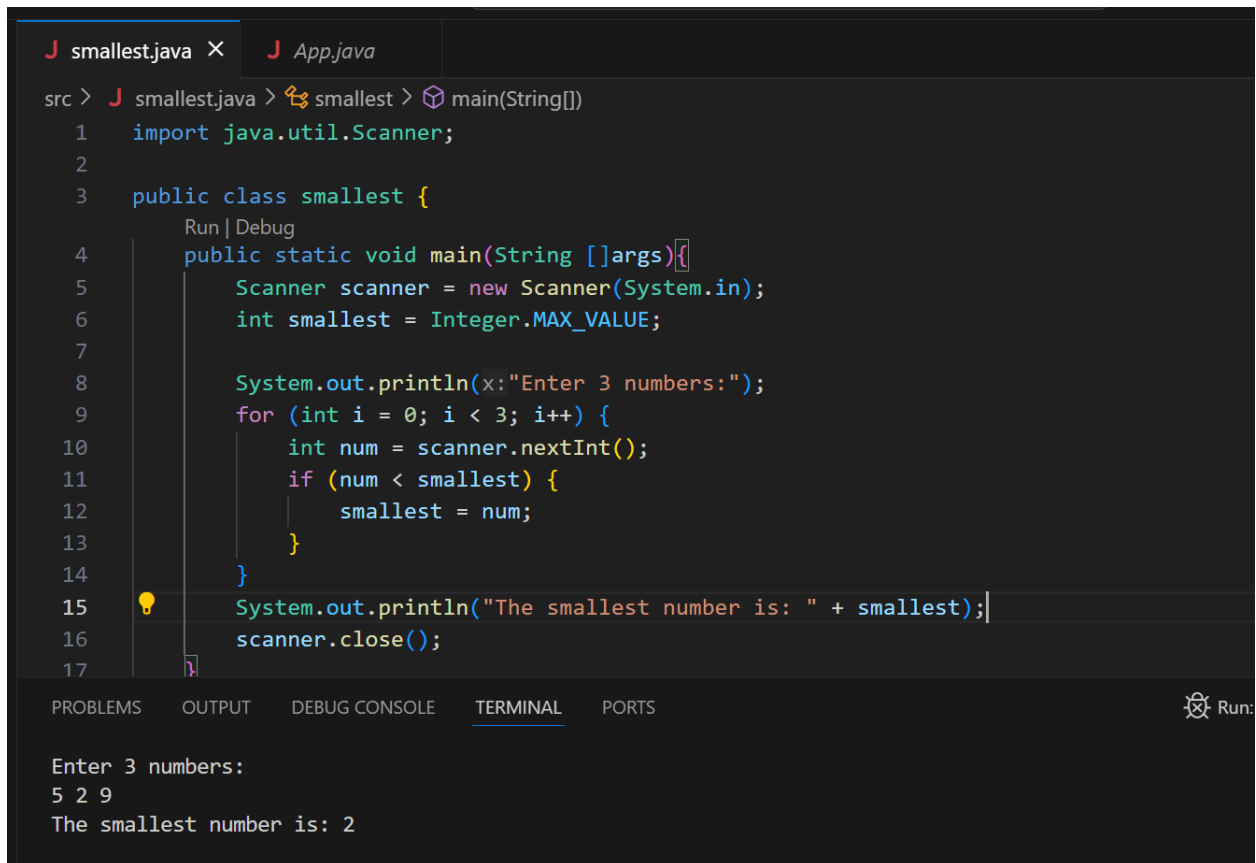


**Submitted to-**

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**Hw-1:** Input 3 integers and print the smallest among them.



The screenshot shows an IDE with two tabs: 'smallest.java' and 'App.java'. The 'smallest.java' tab is active, displaying the following Java code:

```
src > J smallest.java > smallest > main(String[])
1  import java.util.Scanner;
2
3  public class smallest {
4      public static void main(String []args){
5          Scanner scanner = new Scanner(System.in);
6          int smallest = Integer.MAX_VALUE;
7
8          System.out.println("Enter 3 numbers:");
9          for (int i = 0; i < 3; i++) {
10             int num = scanner.nextInt();
11             if (num < smallest) {
12                 smallest = num;
13             }
14         }
15         System.out.println("The smallest number is: " + smallest);
16         scanner.close();
17     }
```

Below the code editor, the 'TERMINAL' tab is active, showing the output of the program:

```
Enter 3 numbers:
5 2 9
The smallest number is: 2
```

**Hw-2:** Input 4 integers and print their average.

The screenshot shows an IDE with three tabs: 'smallest.java', 'average.java', and 'App.java'. The 'average.java' tab is active, displaying the following code:

```
src > J average.java > average > main(String[])
1  import java.util.Scanner;
2
3  public class average {
4      public static void main(String[] args){
5          Scanner scanner = new Scanner(System.in);
6          int sum = 0;
7          int count = 4;
8          System.out.println("Enter 4 numbers:");
9          for (int i = 0; i < count; i++) {
10             int num = scanner.nextInt();
11             sum += num ;
12         }
13         double average = (double)sum/count;
14         System.out.println("The Average number is: " + average);
15         scanner.close();
16     }
17 }
```

The terminal output shows the execution of the program:

```
b\3\\Lab_3\\bin average
Enter 4 numbers:
3 4 6 7
The Average number is: 5.0
```

The status bar at the bottom indicates the file path: 'Arifat@DESKTOP-IRCUGIO MINGW64 /d/arifat-dev/Depatmant-Cse/Semester-5/Java-Lab/Lab-Report/Lab 3/Lab\_3'.

**Hw-3:** Input an integer N, then draw a diamond shape of 2N-1 lines using asterisks (\*)

The screenshot shows an IDE with four tabs: 'smallest.java', 'average.java', 'DiamondPattern.java', and 'App.java'. The 'DiamondPattern.java' tab is active, displaying the following code:

```
src > J DiamondPattern.java > DiamondPattern > main(String[])
3  public class DiamondPattern {
4      public static void main(String[] args) {
5          Scanner scanner = new Scanner(System.in);
6          int N = scanner.nextInt();
7          int totallines = 2 * N - 1;
8          for (int i = 1; i <= N; i++) {
9              for (int j = 1; j <= N - i; j++) {
10                 System.out.print(s: " ");
11             }
12             for (int k = 1; k <= 2 * i - 1; k++) {
13                 System.out.print(s: "**");
14             }
15             System.out.println();
16         }
17         for (int i = N - 1; i >= 1; i--) {
18             for (int j = 1; j <= N - i; j++) {
19                 System.out.print(s: " ");
20             }
21             for (int k = 1; k <= 2 * i - 1; k++) {
22                 System.out.print(s: "**");
23             }
24             System.out.println();
25         }
26     }
27 }
```

The terminal output shows the execution of the program:

```
Enter an integer N: 3
Enter an integer N: 3
*
***
*****
***
*
```

The status bar at the bottom indicates the file path: 'Arifat@DESKTOP-IRCUGIO MINGW64 /d/arifat-dev/Depatmant-Cse/Semester-5/Java-Lab/Lab-Report/Lab 3/Lab\_3'.