Course Code: CSE-2340

Course Title: Software Development 1 (SD1).

Experiment Name: SD1_LabTask1_JavaBasics.

A..Setup Steps for Java IDE

i.**Download and Install JDK**

- Went to the Oracle JDK download page
- Downloaded the latest Java Development Kit (JDK) for Windows.
- Installed it by following the setup wizard.

ii.**Set Environment Variables (if needed)**

- Verified that JAVA_HOME was set automatically by the installer.
- Checked installation by opening Command Prompt and running:
- java -version → This displayed the installed Java version.

iii.**Install NetBeans IDE**

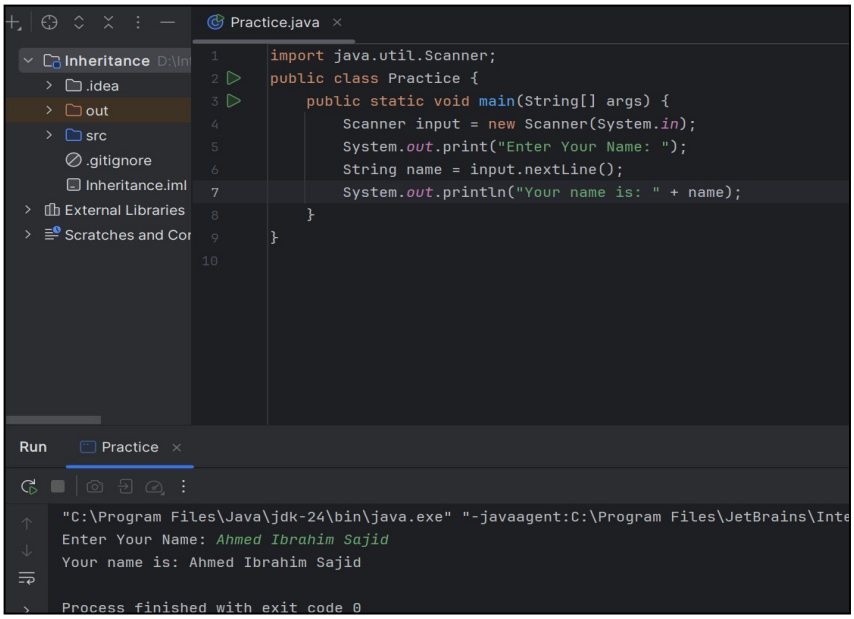
- Downloaded NetBeans IDE from the official website.
- Installed it and selected the JDK path during setup.
- Created a new Java project to confirm installation.

iv.**Install IntelliJ IDEA (Community Edition)**

- Downloaded IntelliJ IDEA from JetBrains website.
- Installed it with default settings.
- Configured IntelliJ to use the installed JDK.

v.**Verify Installation**

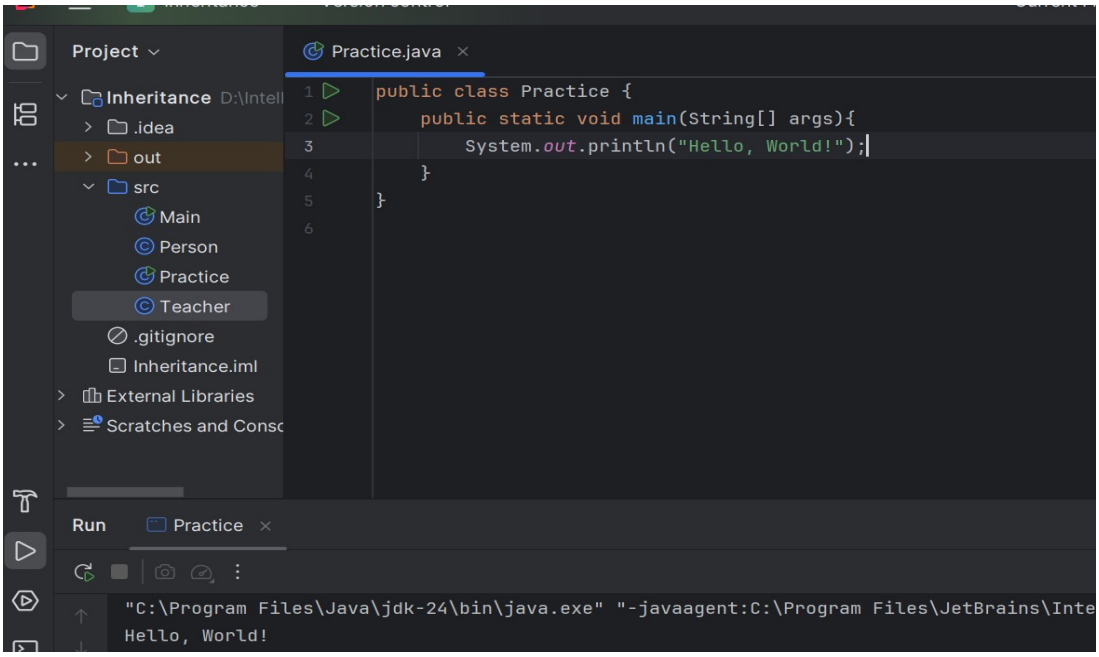
- Opened both NetBeans and IntelliJ.
- Created a simple Java program:



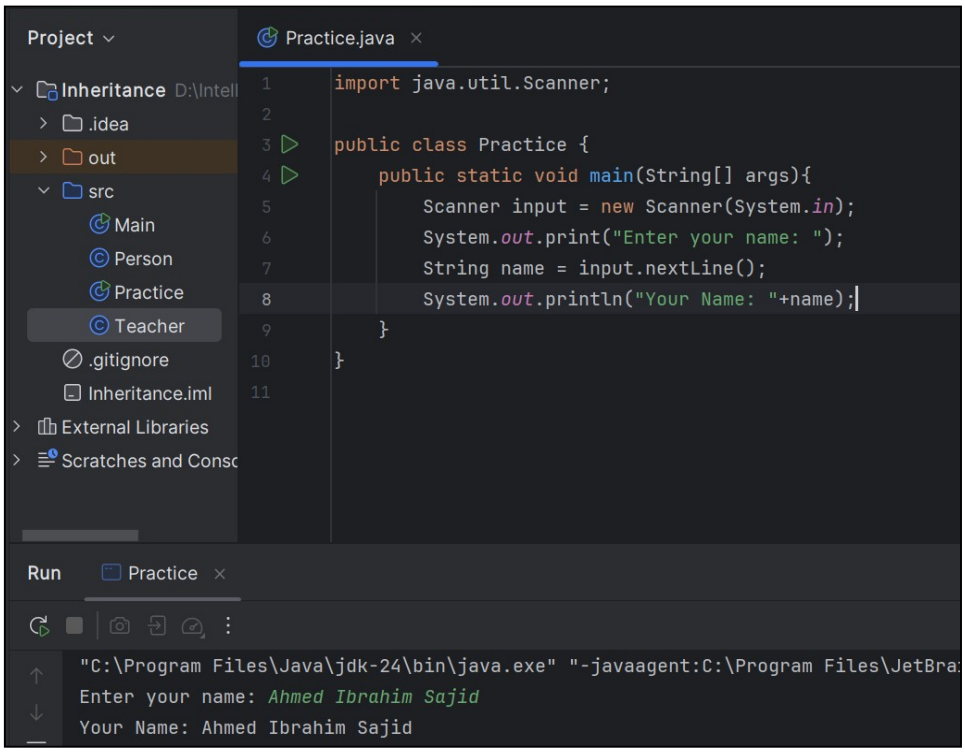
- Successfully ran the program and saw the output on the console

B. Codes:

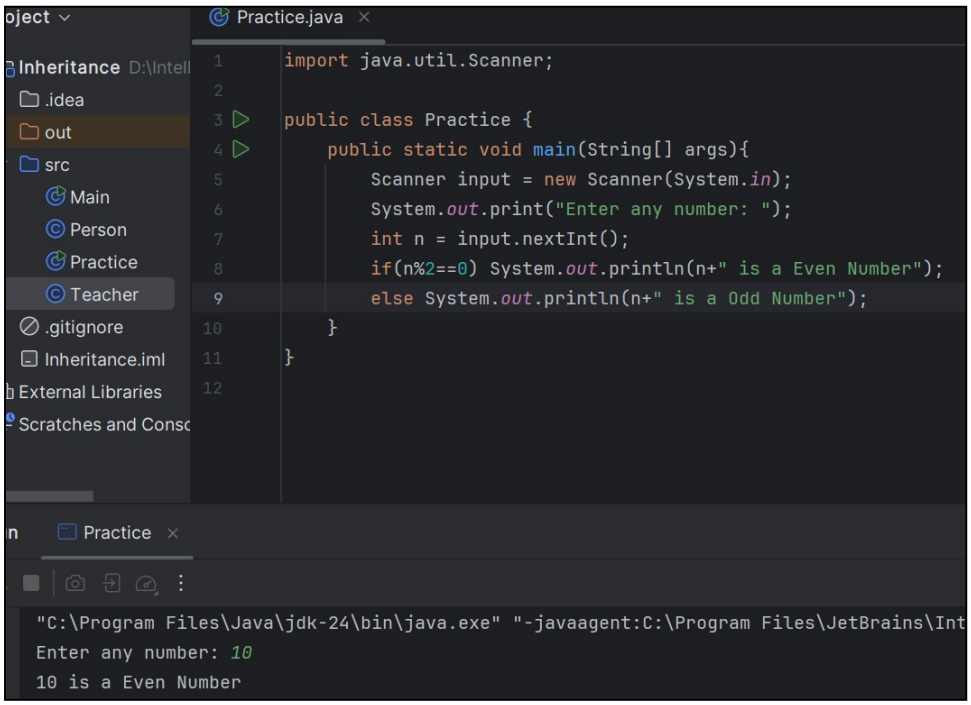
1. It is a simple Java Code that print Hello World!



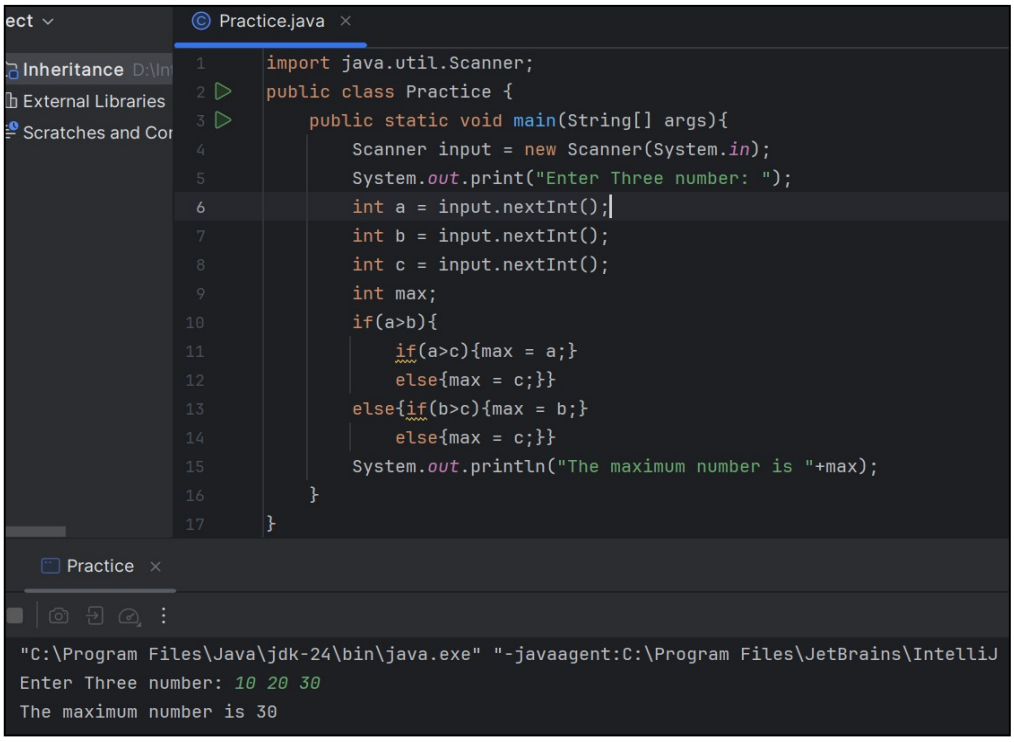
2. It get input from user his name and print it.



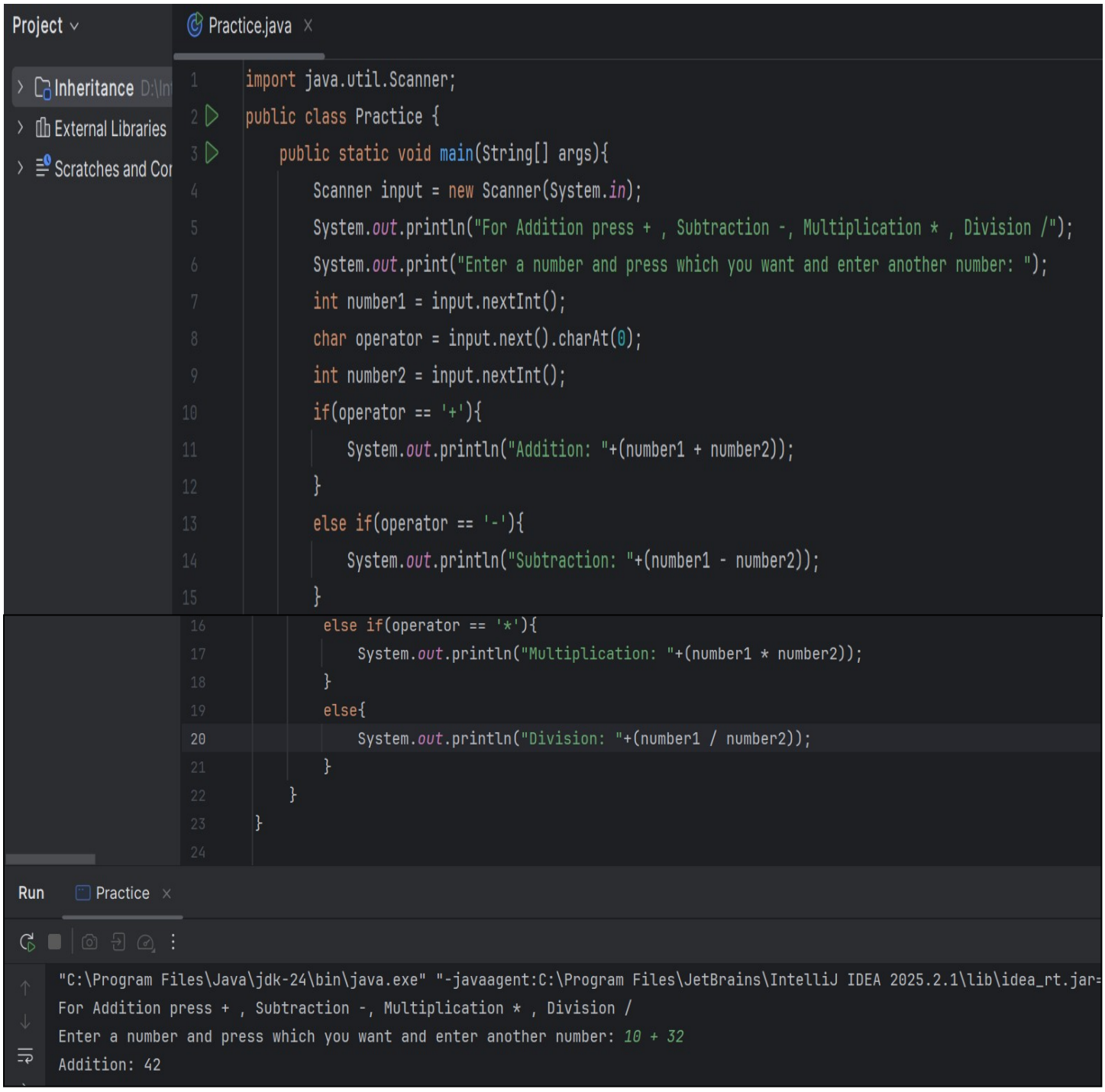
3. In this code it get a input from user and check it is Even or Odd number.



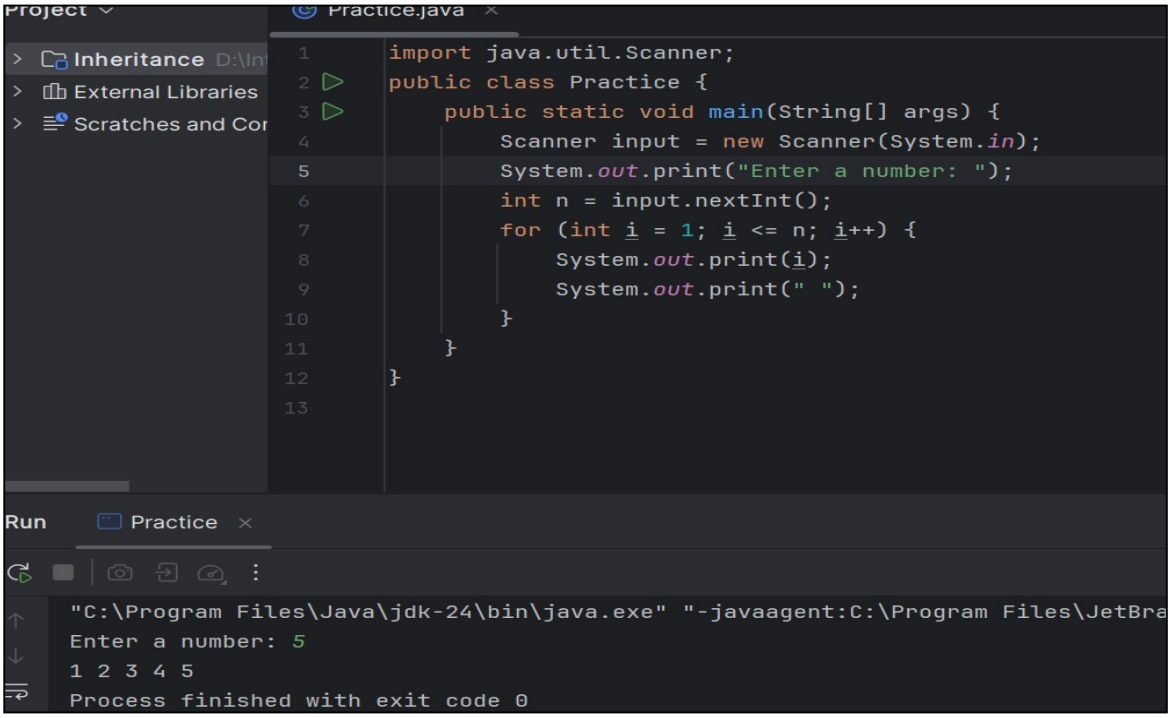
4. This program is for find the maximum number among 3 numbers.



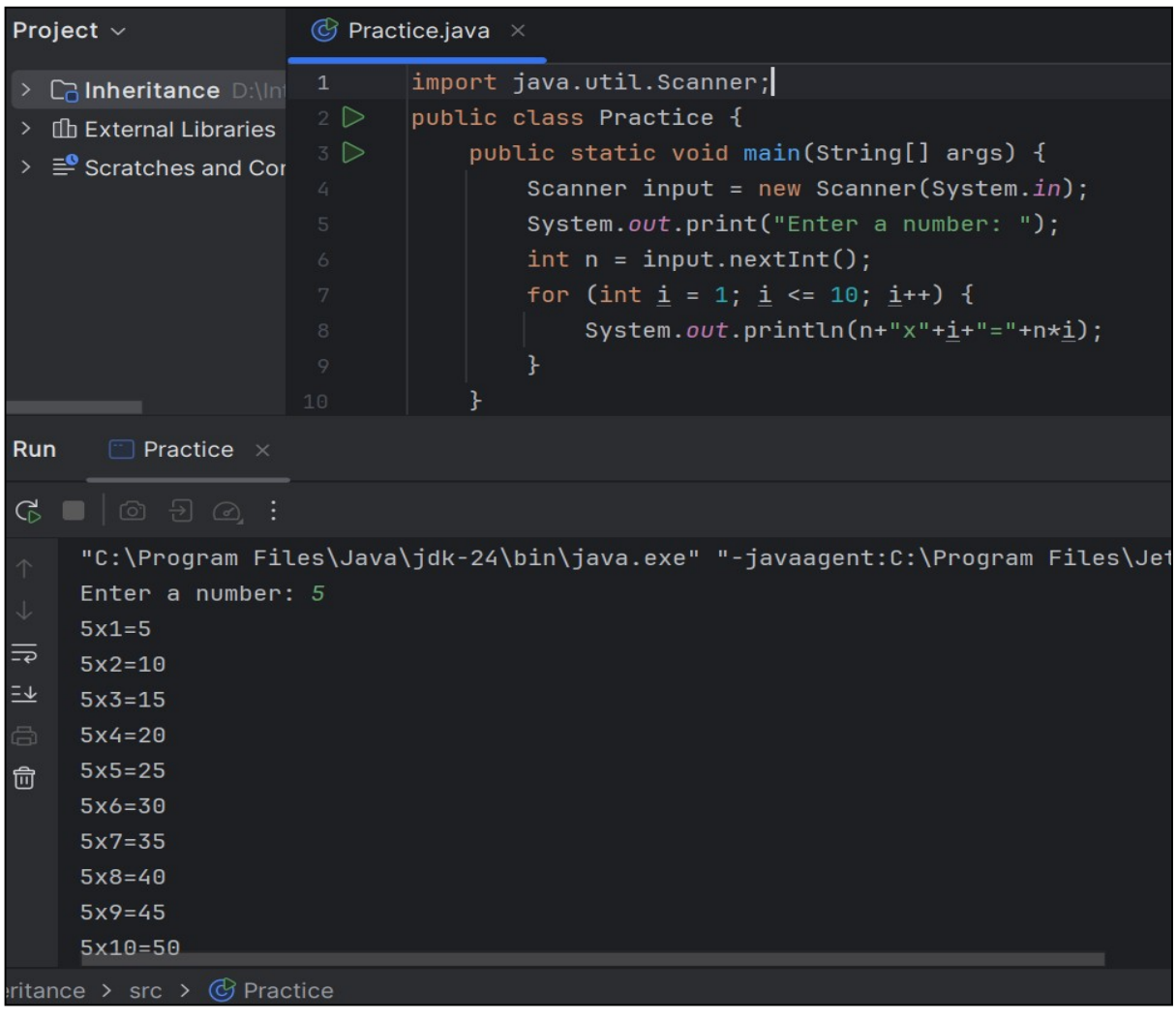
5. This program is for a simple Calculator.



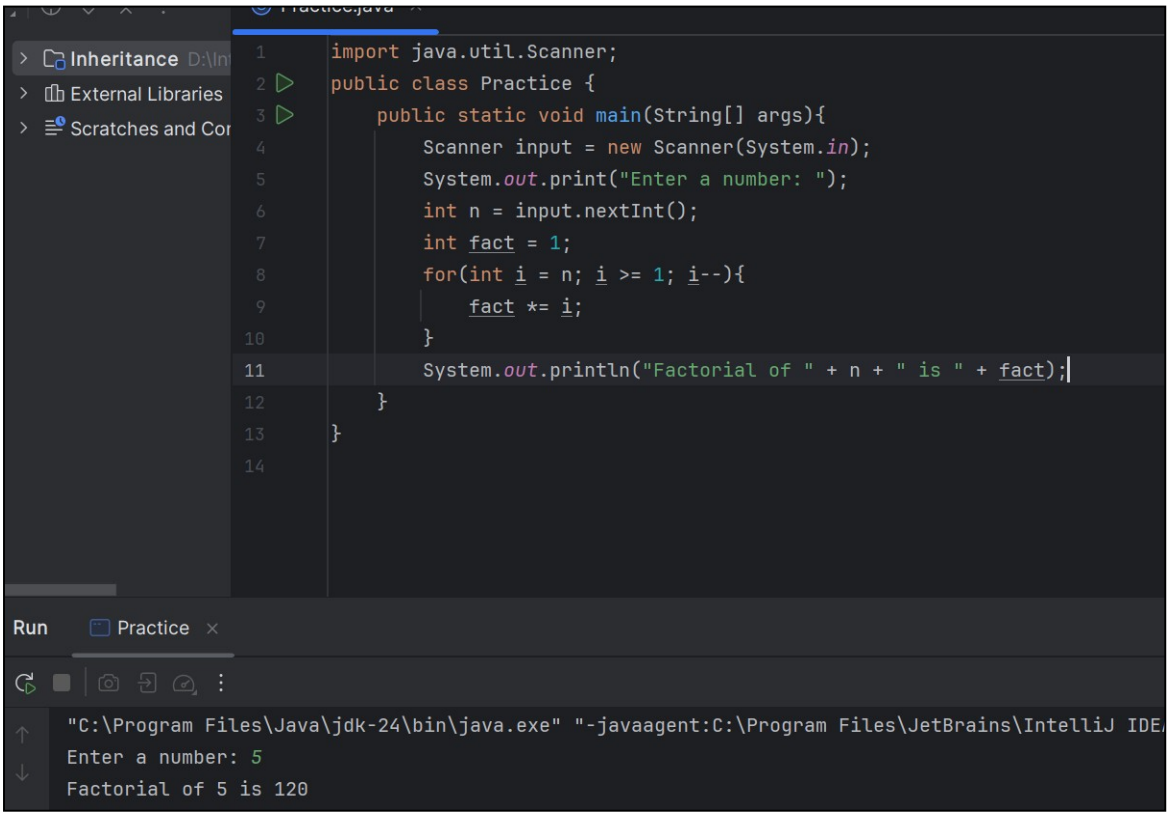
6.This program works for print 1 to n number using for loop.



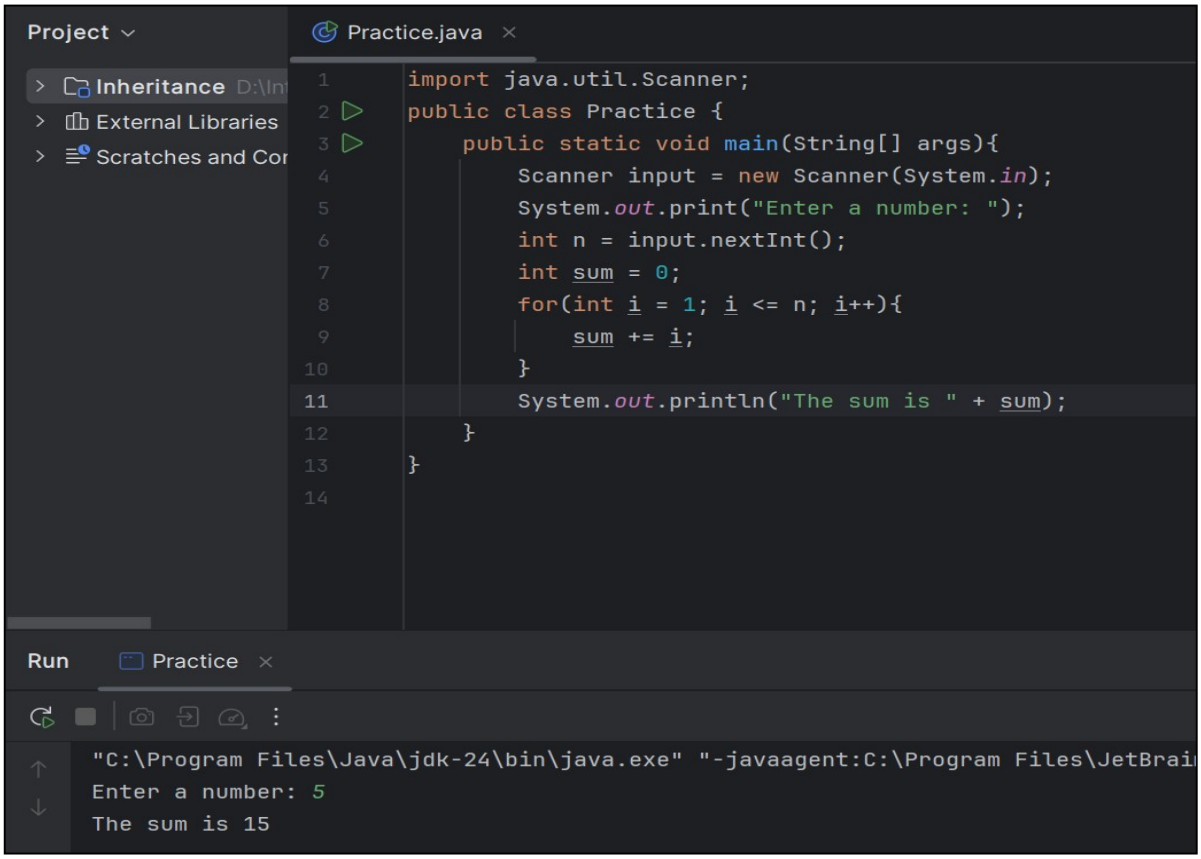
7. This program works for a multiplication table.



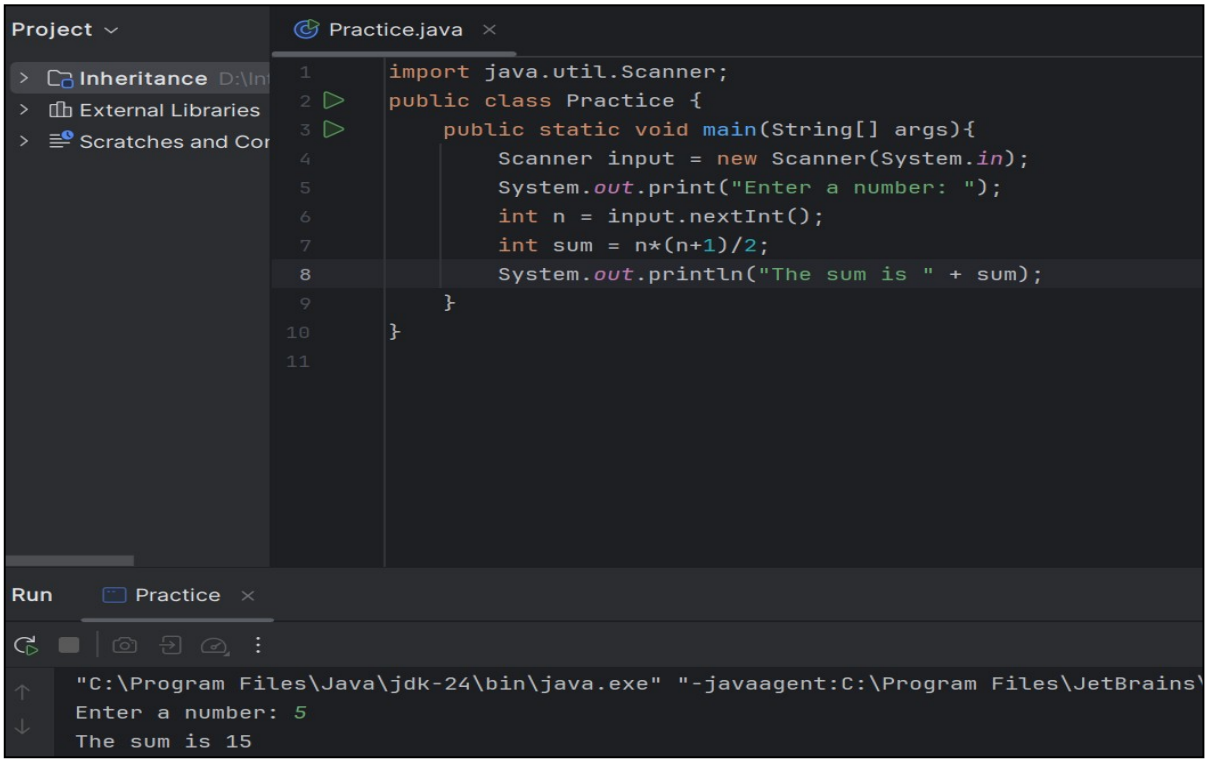
8. This program works for factorial of a number



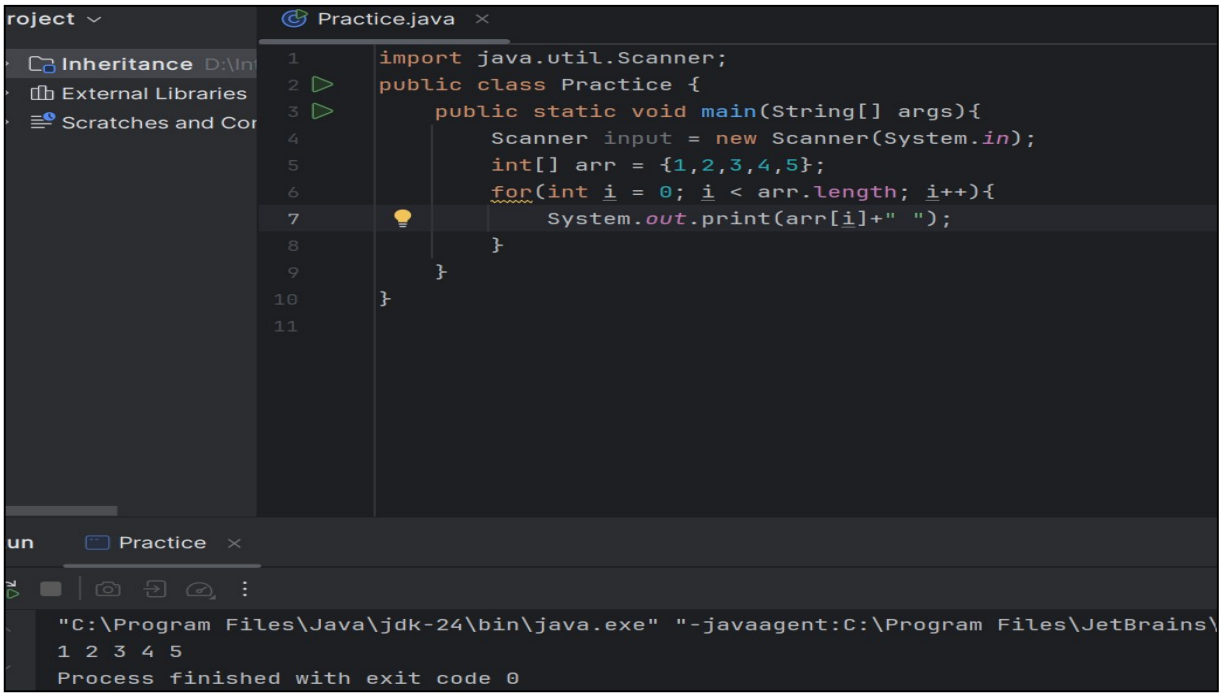
9. This program works for sum of all number between 1 and n.



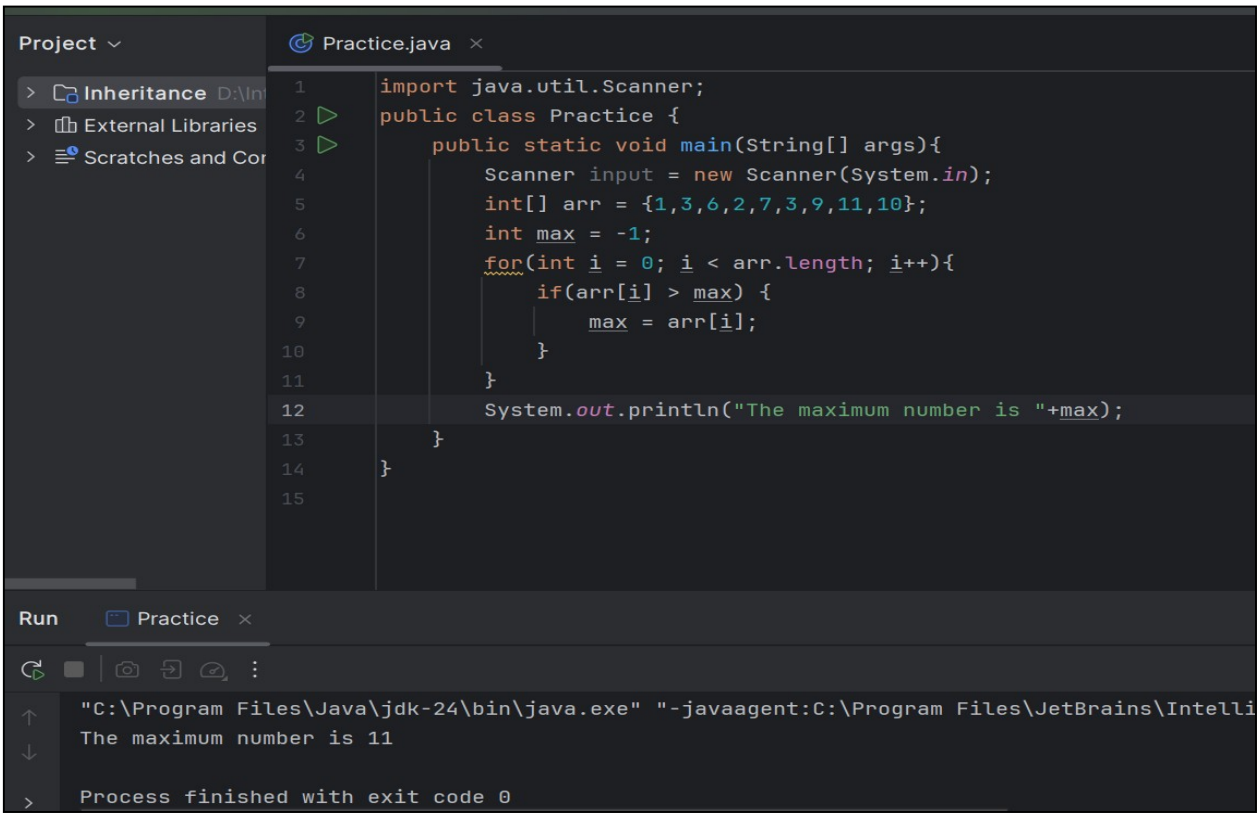
Or, in this way it can solve more efficiently



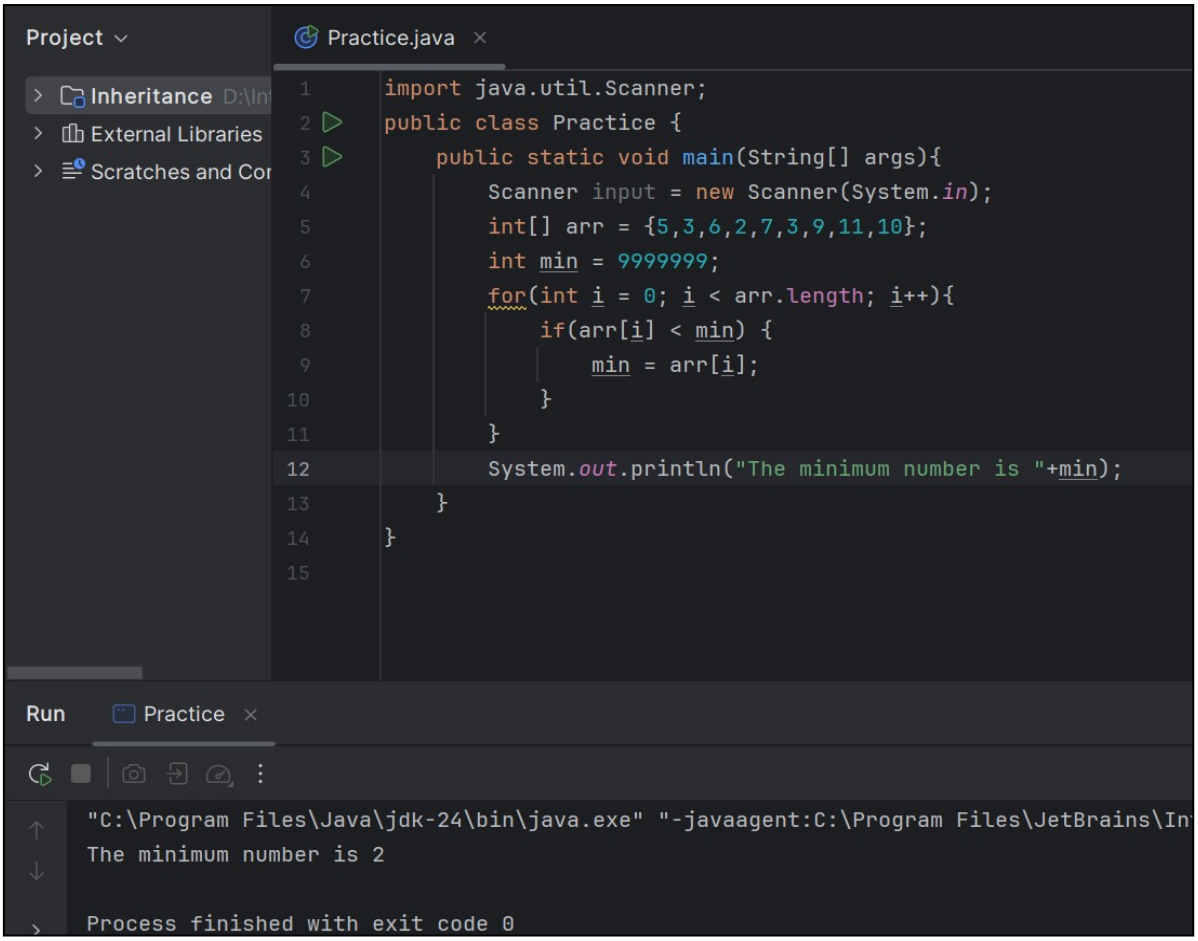
10. This program works for print an array



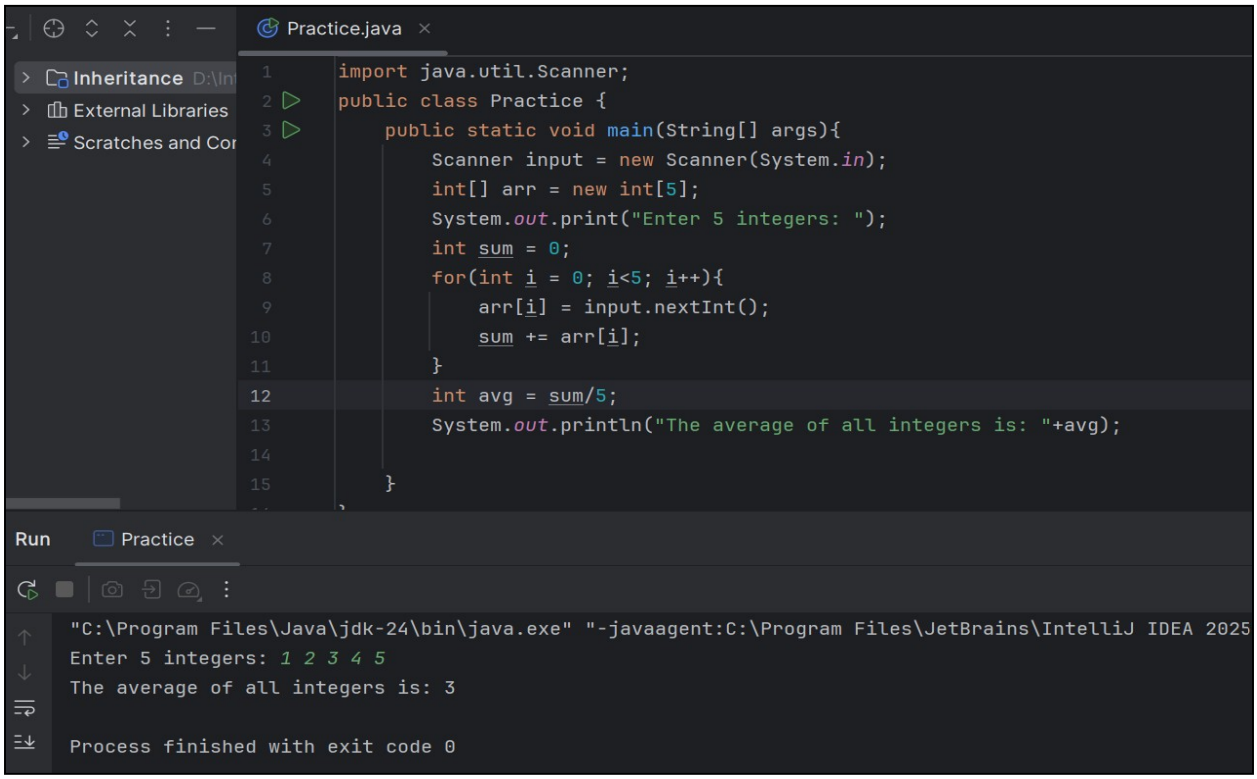
11. This program works for find maximum number from an array



12. This program works for find minimum number from array



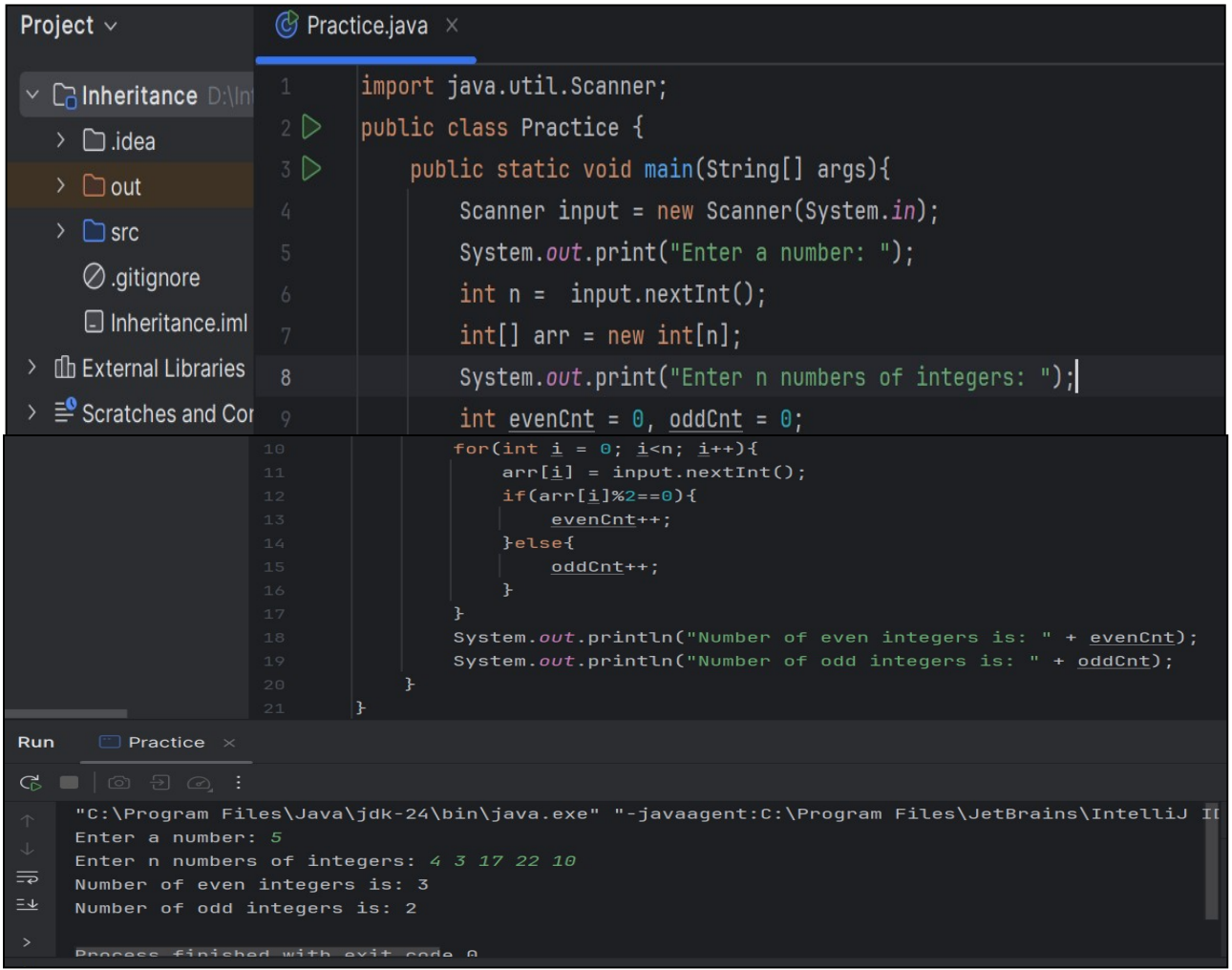
13. This program works for find the average of the array,



```java
import java.util.Scanner;
public class Practice {
    public static void main(String[] args){
        Scanner input = new Scanner(System.in);
        int[] arr = new int[5];
        System.out.print("Enter 5 integers: ");
        int sum = 0;
        for(int i = 0; i<5; i++){
            arr[i] = input.nextInt();
            sum += arr[i];
        }
        int avg = sum/5;
        System.out.println("The average of all integers is: "+avg);

    }
}
```

```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2025
Enter 5 integers: 1 2 3 4 5
The average of all integers is: 3

Process finished with exit code 0
```

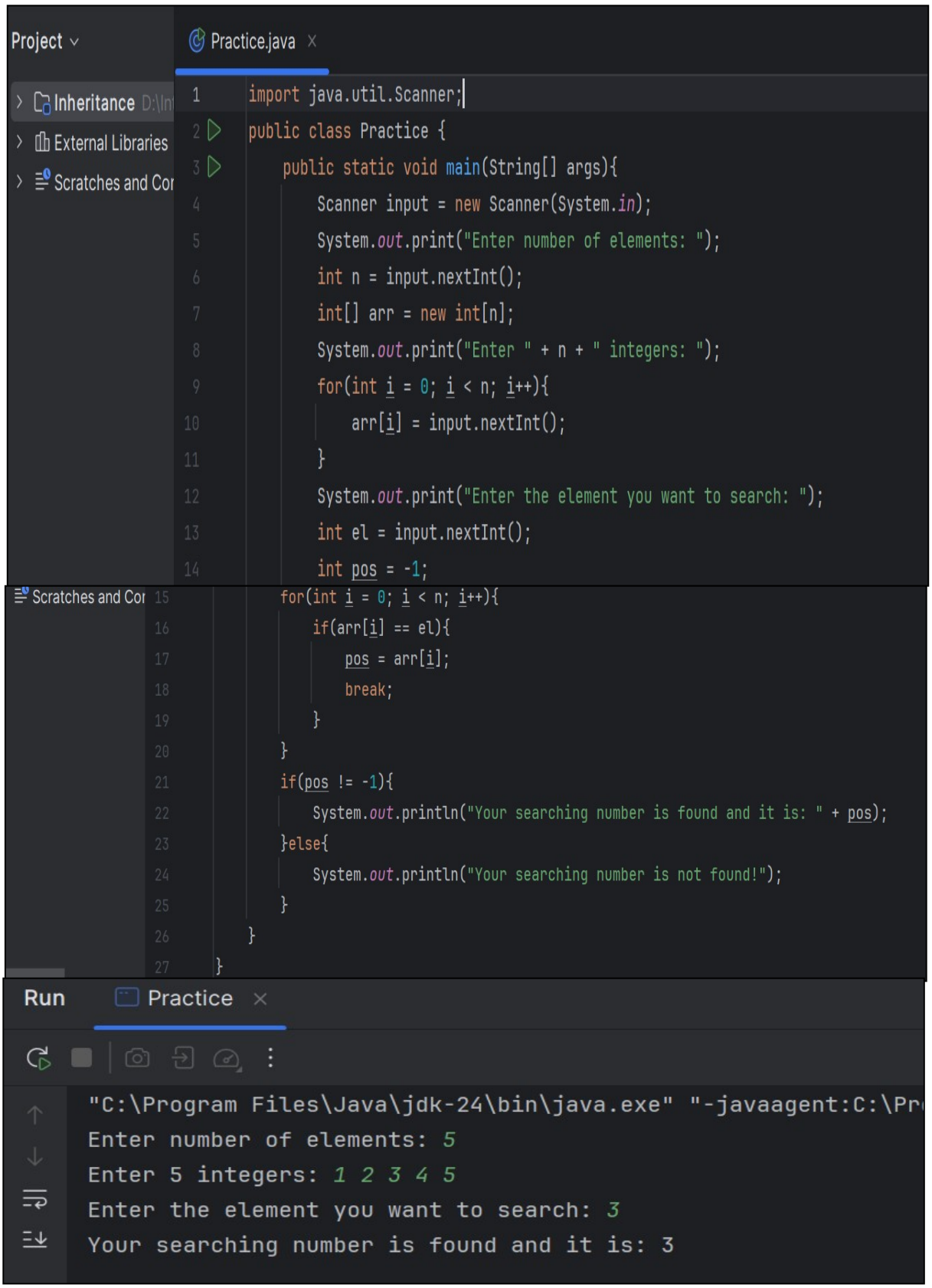
14.This program works for find number of even and odd from an array.



```java
import java.util.Scanner;
public class Practice {
    public static void main(String[] args){
        Scanner input = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int n =  input.nextInt();
        int[] arr = new int[n];
        System.out.print("Enter n numbers of integers: ");
        int evenCnt = 0, oddCnt = 0;
        for(int i = 0; i<n; i++){
            arr[i] = input.nextInt();
            if(arr[i]%2==0){
                evenCnt++;
            }else{
                oddCnt++;
            }
        }
        System.out.println("Number of even integers is: " + evenCnt);
        System.out.println("Number of odd integers is: " + oddCnt);
    }
}
```

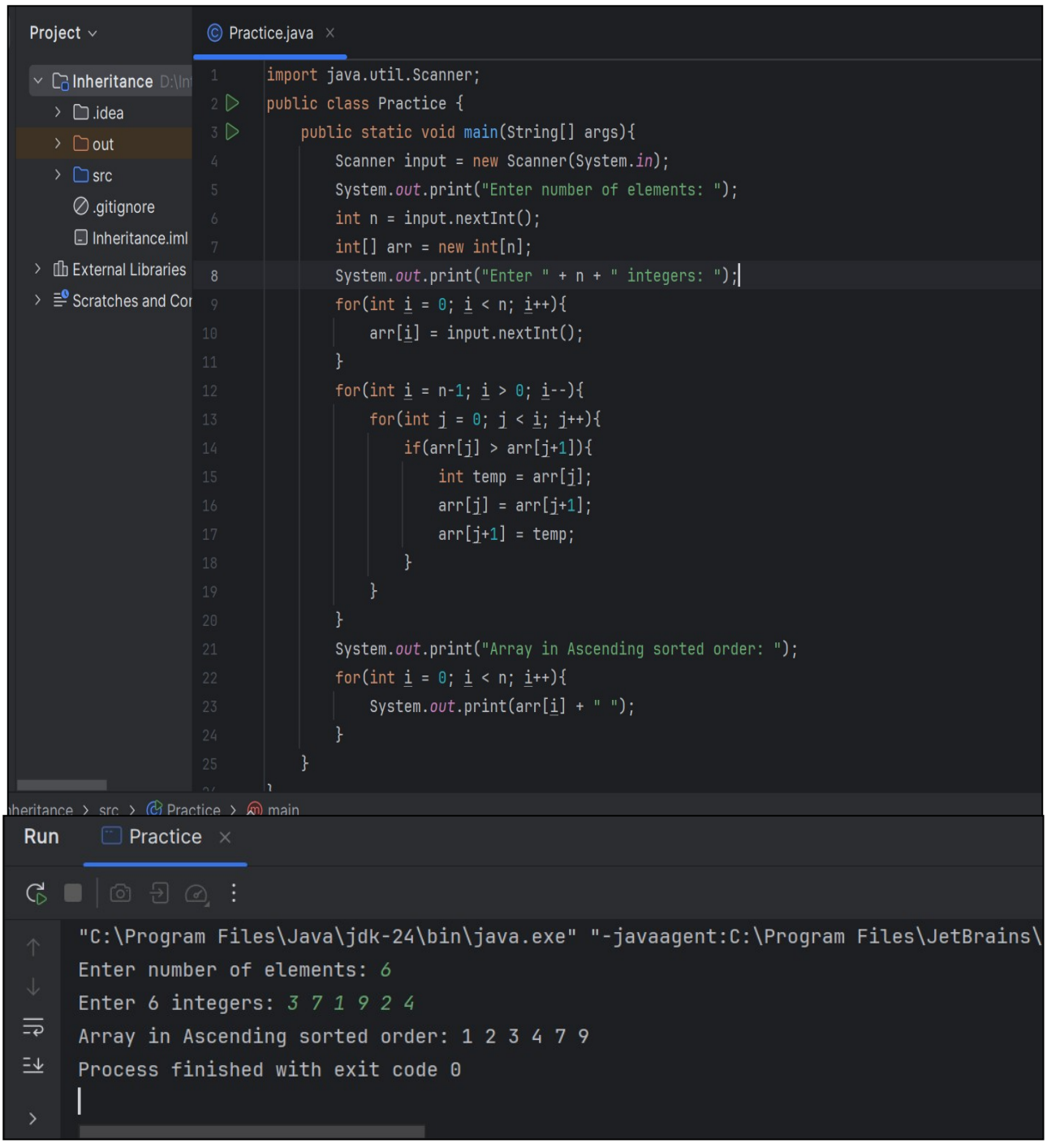
```
"C:\Program Files\Java\jdk-24\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ II
Enter a number: 5
Enter n numbers of integers: 4 3 17 22 10
Number of even integers is: 3
Number of odd integers is: 2

Process finished with exit code 0
```

15.This program for Searching an integer from an array

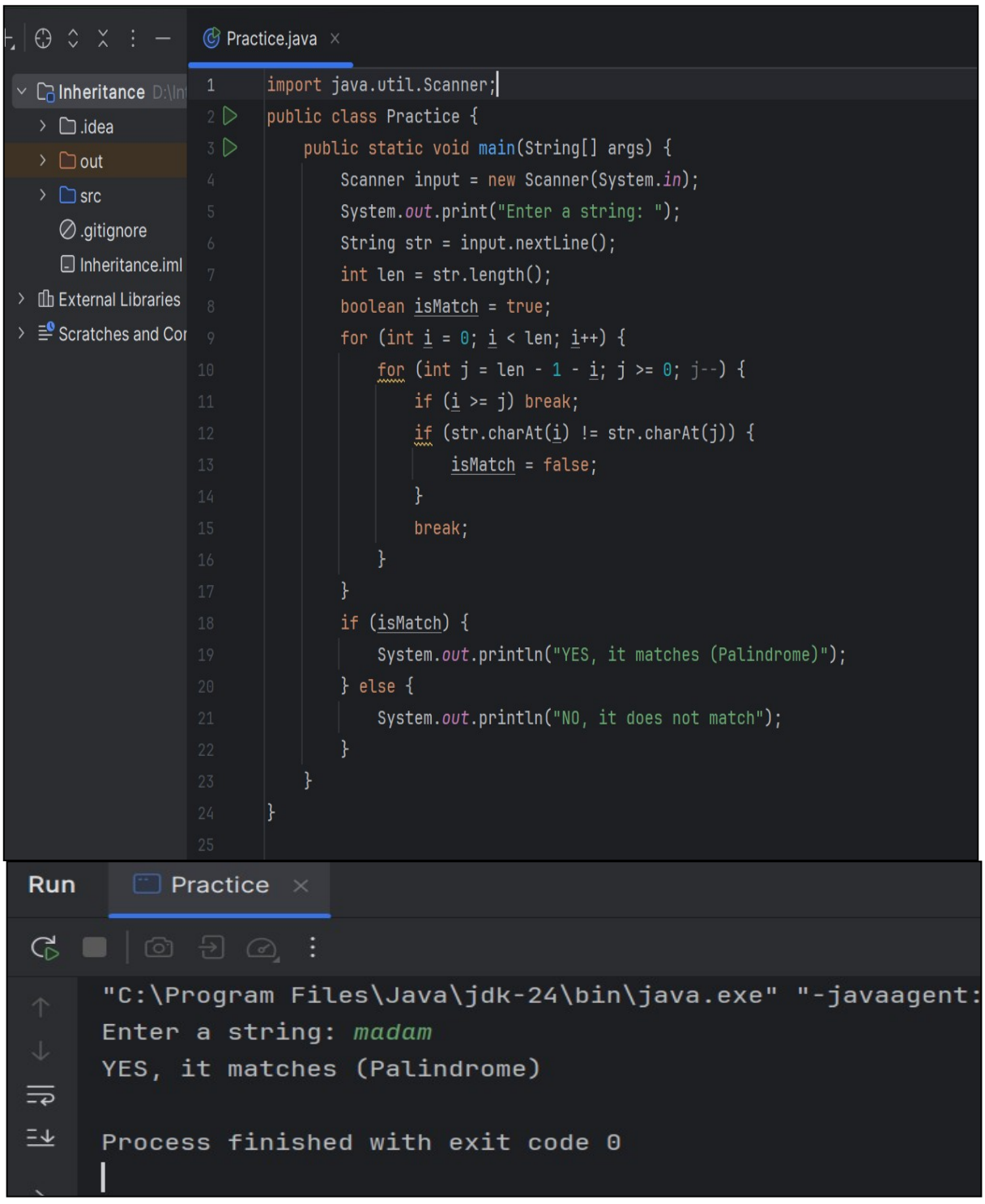



```java
import java.util.Scanner;
public class Practice {
    public static void main(String[] args){
        Scanner input = new Scanner(System.in);
        System.out.print("Enter number of elements: ");
        int n = input.nextInt();
        int[] arr = new int[n];
        System.out.print("Enter " + n + " integers: ");
        for(int i = 0; i < n; i++){
            arr[i] = input.nextInt();
        }
        System.out.print("Enter the element you want to search: ");
        int el = input.nextInt();
        int pos = -1;
        for(int i = 0; i < n; i++){
            if(arr[i] == el){
                pos = arr[i];
                break;
            }
        }
        if(pos != -1){
            System.out.println("Your searching number is found and it is: " + pos);
        }else{
            System.out.println("Your searching number is not found!");
        }
    }
}
```

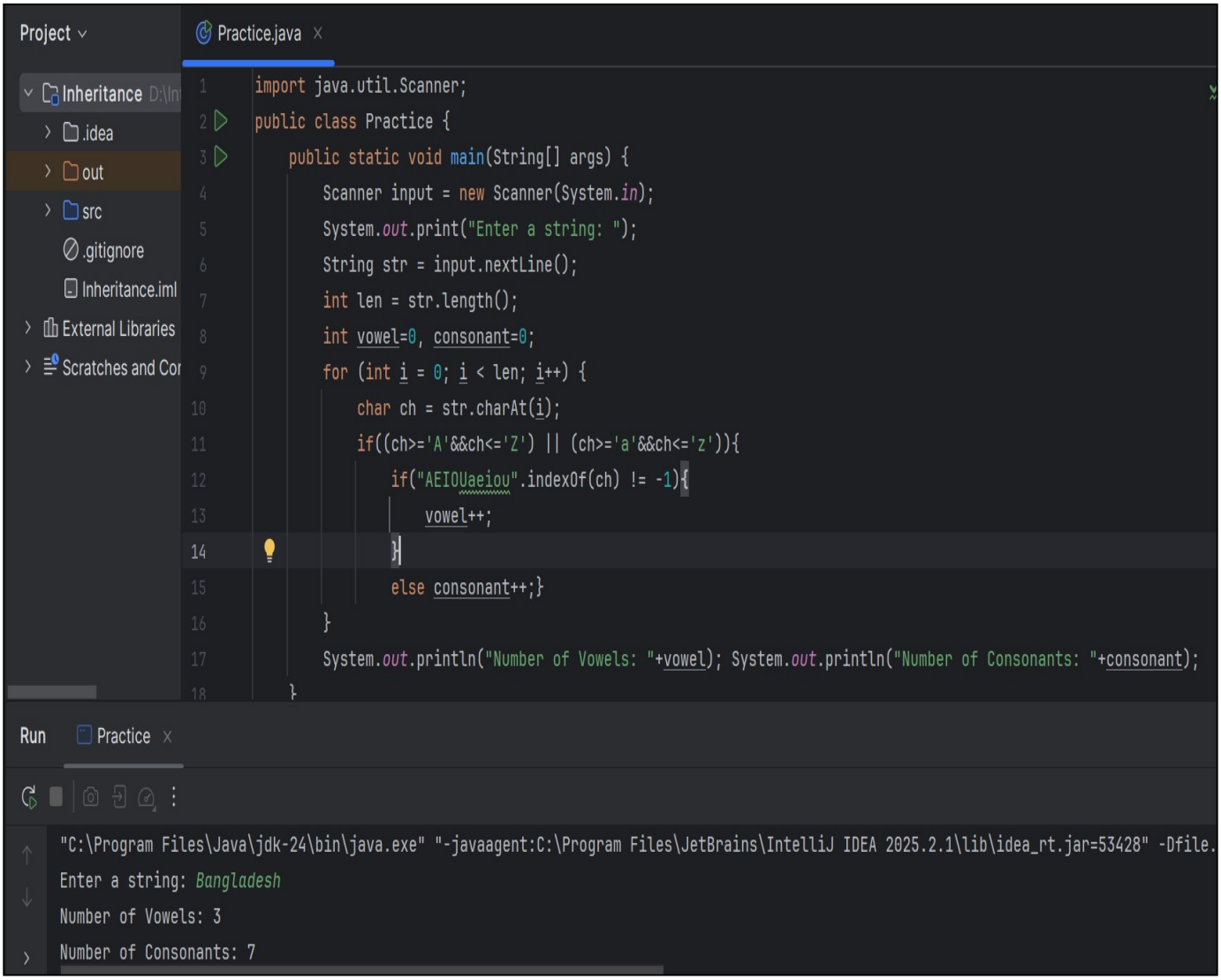
16. This program works for Sorting of array in Ascending order



17.This program works for that the given string is Pallindrome or not.



18. This program works for count Vowel and Consonant from a String.



19. This program works for Converting Upper Case and Lower case