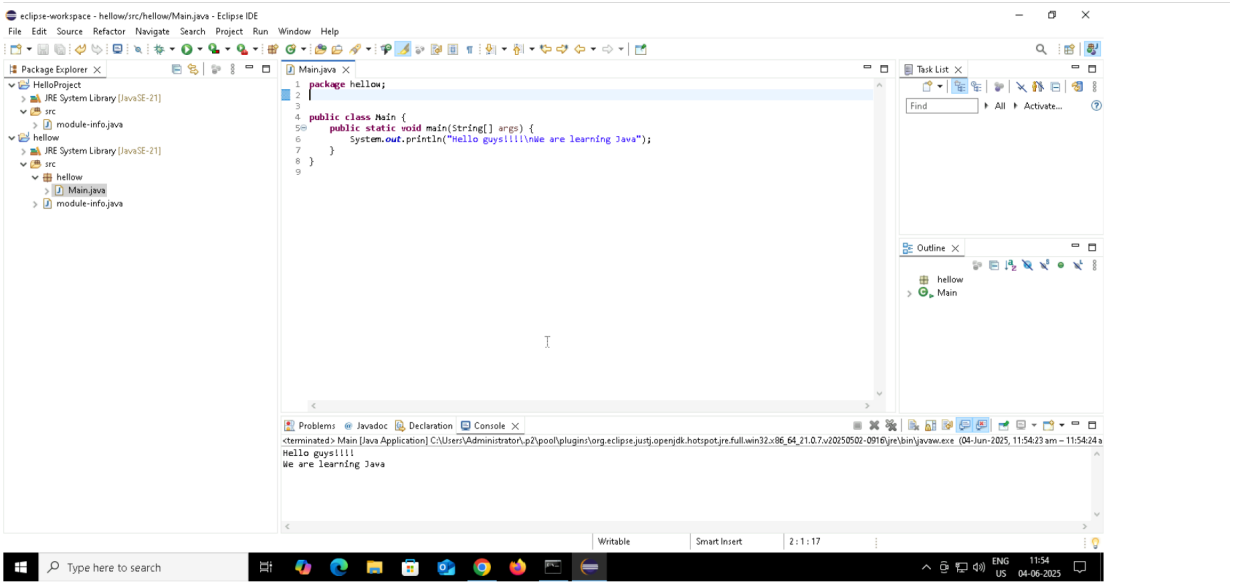


Task00 2

Write a Program in Java to Add two Numbers.

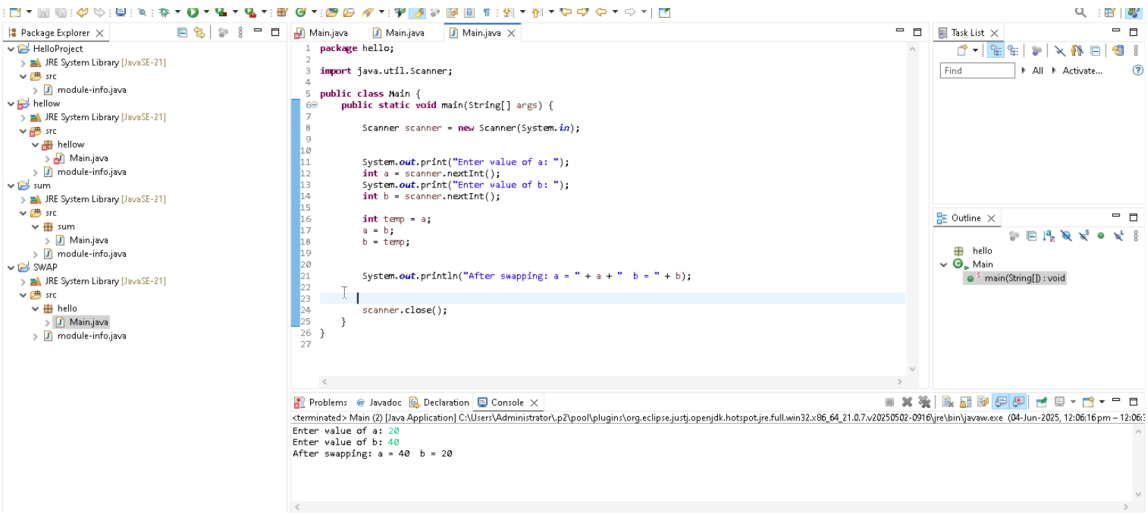
Input: 2 3

Output: 5

```java
package sum;

import java.util.Scanner;
public class Main {
    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);


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

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

        int sum = num1 + num2;

          System.out.println("The sum of " + num1 + " and " + num2 + " is: " + sum);

        scanner.close();
    }
}
```

Task 003:

Write a Program to Swap Two Numbers
Input: a=2 b=5
Output: a=5 b=2



Task 4
Task 004:

Create a code in which you have 4 methods add, subtract, multiply and divide (return type int) with a main method..to all all the other methods

Out put:

Main started
Sum of 2 numbers is …..
Diff of 2 numbers is —-
Product of 2 numbers ….
Division of 2 numbers is ….
Main ended

```java
package hello;

public class Main {


    public static int add(int a, int b) {
        return a + b;
    }


    public static int subtract(int a, int b) {
        return a - b;
    }


    public static int multiply(int a, int b) {
        return a * b;
    }


    public static int divide(int a, int b) {

        if (b == 0) {
            System.out.println("Error! Division by zero.");
            return 0;
        }
        return a / b;
    }

```

Problems | Javadoc | Declaration | Console

<terminated> Main (3) [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk

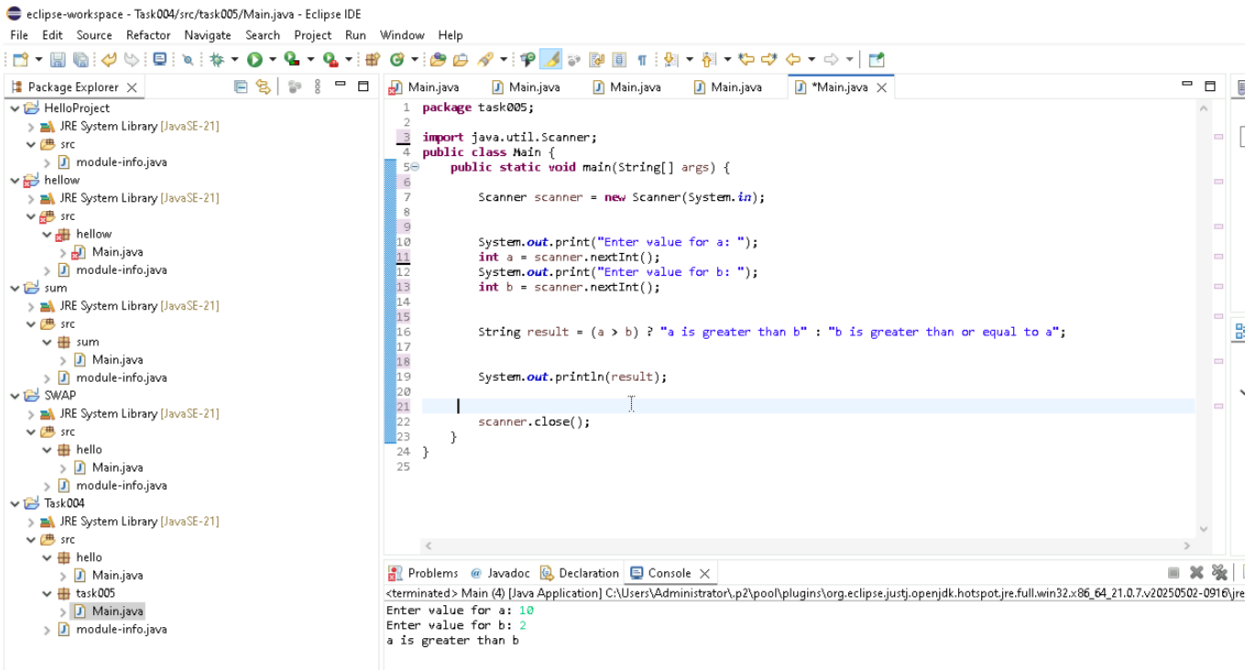
```
Main started
Sum of 2 numbers is 15
Diff of 2 numbers is 5
Product of 2 numbers is 50
Division of 2 numbers is 2
Main ended
```

```java
public static int divide(int a, int b) {

    if (b == 0) {
        System.out.println("Error! Division by zero.");
        return 0;
    }
    return a / b;
}

public static void main(String[] args) {
    System.out.println("Main started");

    int num1 = 10;
    int num2 = 5;

    // Calling the methods and displaying the results
    System.out.println("Sum of 2 numbers is " + add(num1, num2));
    System.out.println("Diff of 2 numbers is " + subtract(num1, num2));
    System.out.println("Product of 2 numbers is " + multiply(num1, num2));
    System.out.println("Division of 2 numbers is " + divide(num1, num2));

    System.out.println("Main ended");
}
```

Task 5
Task 005:

Write a program to check if a is greater or b.. Use ternary op

12.14 to 12.18



Task 006:

Write a program to take input from the user and display it to the user

Input:

Id : Prasunamba
Pwd: 123456789

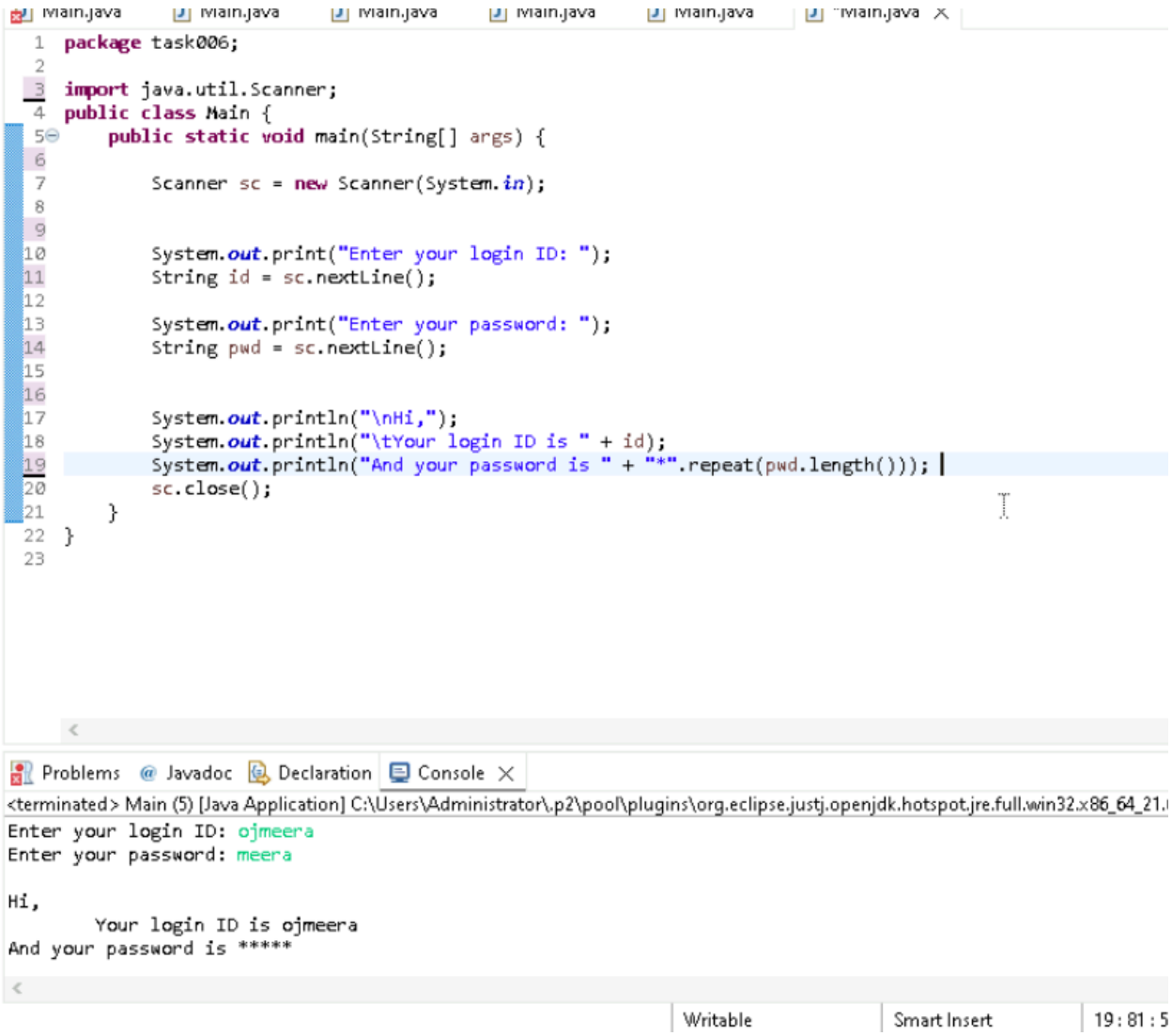
Output:

Hi ,

Your login id is Prasuanmba
And your pwd is *********

HInt :
For scanner … import java.util.scanner;

Scanner sc = new Scanner(System.in);
Id = sc.nexLine();



```java
package task006;

import java.util.Scanner;
public class Main {
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);


        System.out.print("Enter your login ID: ");
        String id = sc.nextLine();

        System.out.print("Enter your password: ");
        String pwd = sc.nextLine();


        System.out.println("\nHi,");
        System.out.println("\tYour login ID is " + id);
        System.out.println("And your password is " + "*".repeat(pwd.length()));
        sc.close();
    }
}
```

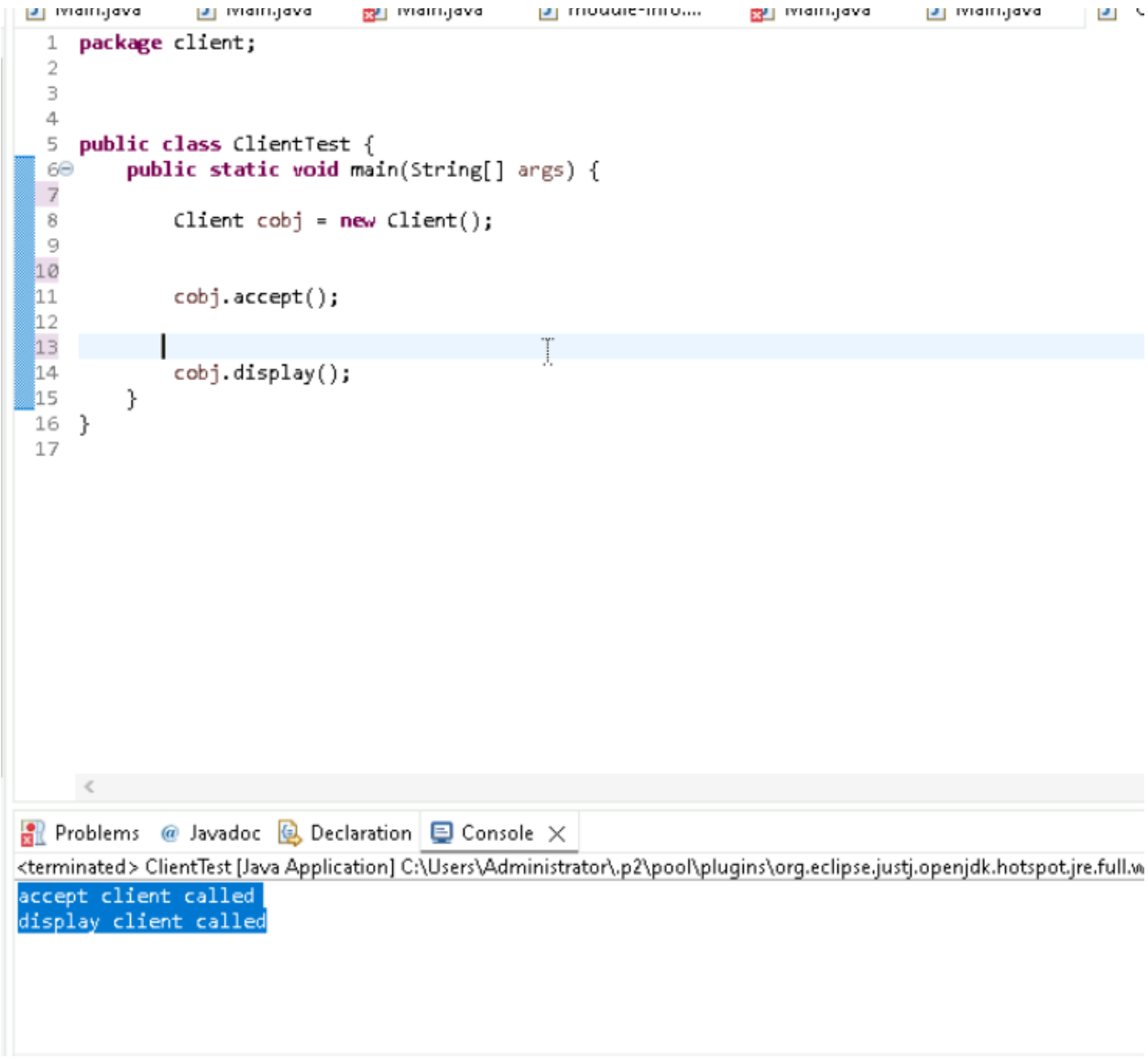
```
Problems  Javadoc  Declaration  Console
<terminated> Main (5) [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.
Enter your login ID: ojmeera
Enter your password: meera

Hi,
        Your login ID is ojmeera
And your password is *****
```

Writable | Smart Insert | 19 : 81 : 5

Task 007:

Write a program to create a class named Customer
Call the customer class in Task007 class using an object

Ans **I just change the name customer to client and clienttest**


Main.java
Main.java
Main.java
module-info....
Main.java
Main.java
1 package client;
2
3
4
5 public class ClientTest {
6 public static void main(String[] args) {
7
8 Client cobj = new Client();
9
10
11 cobj.accept();
12
13
14 cobj.display();
15 }
16 }
17
Problems
Javadoc
Declaration
Console
<terminated> ClientTest [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.w
accept client called
display client called

```java
package client;



class Client {

void accept() {
    System.out.println("accept client called");
}

/
void display() {
    System.out.println("display client called");
}
}

```

```
Problems  Javadoc  Declaration  Console
<terminated> ClientTest [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hots
accept client called
display client called
```

Task 008:

Wap to check the greater of 2 numbers

Hint:
Use if else

```
If ( num1 > num2){
        sout(“num1 is greater”);
}
Else {
        sout(“num2 is greater”);
}
```

Main.java GreaterOfTwo.java

```java
import java.util.Scanner;

public class GreaterOfTwo {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the first number:");
        int num1 = sc.nextInt();

        System.out.println("Enter the second number:");
        int num2 = sc.nextInt();
```

```java
        int num1 = sc.nextInt();

        System.out.println("Enter the second number:");
        int num2 = sc.nextInt();


        if (num1 > num2) {
            System.out.println(num1 + " is greater than " + num2);
        } else {
            System.out.println(num2 + " is greater than " + num1);
        }


        sc.close();
```

```
    public static void main(String[] args) {

        if (num1 > num2) {
            System.out.println(num1 + " is greater than " + num2);
        } else {
            System.out.println(num2 + " is greater than " + num1);
        }


        sc.close();
    }
}
```

```
Enter the first number:
12
Enter the second number:
2
12 is greater than 2
```

```
Enter the second number:
2
12 is greater than 2

Process finished with exit code 0
```

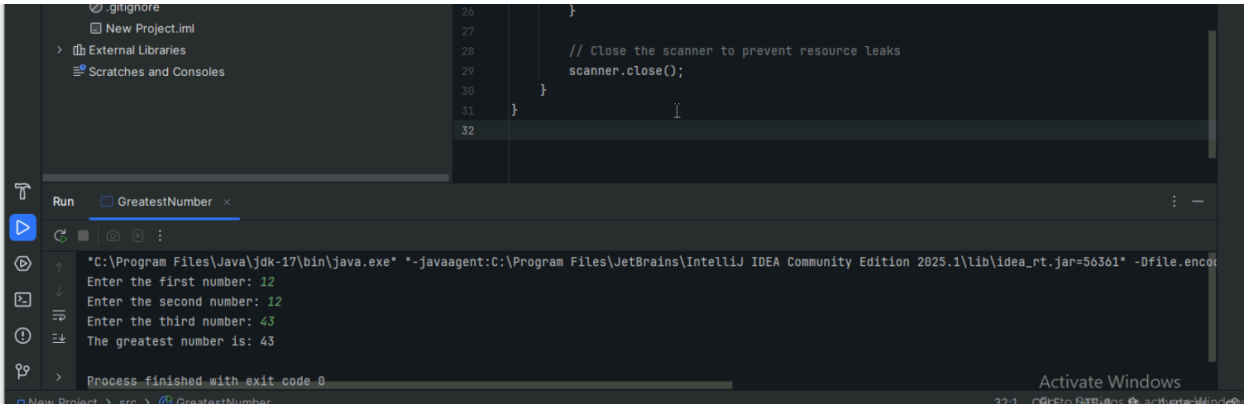
Task 009
Wap to check greater of 3 numbers

Hint 👍
Use elseif

}

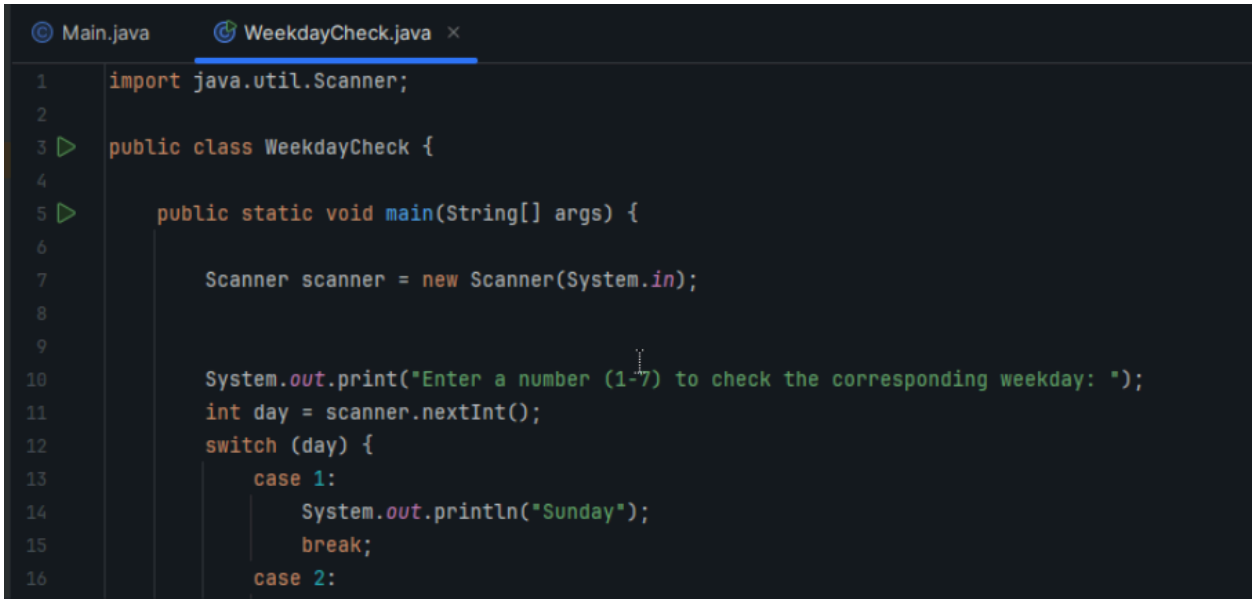
```java
import java.util.Scanner;  // Import Scanner for taking input

public class GreatestNumber {  // Class declaration

    public static void main(String[] args) {  // Main method
        // Create a Scanner object to take input from the user
        Scanner scanner = new Scanner(System.in);

        // Ask the user for three numbers
        System.out.print("Enter the first number: ");
        int num1 = scanner.nextInt();

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

        System.out.print("Enter the third number: ");
```

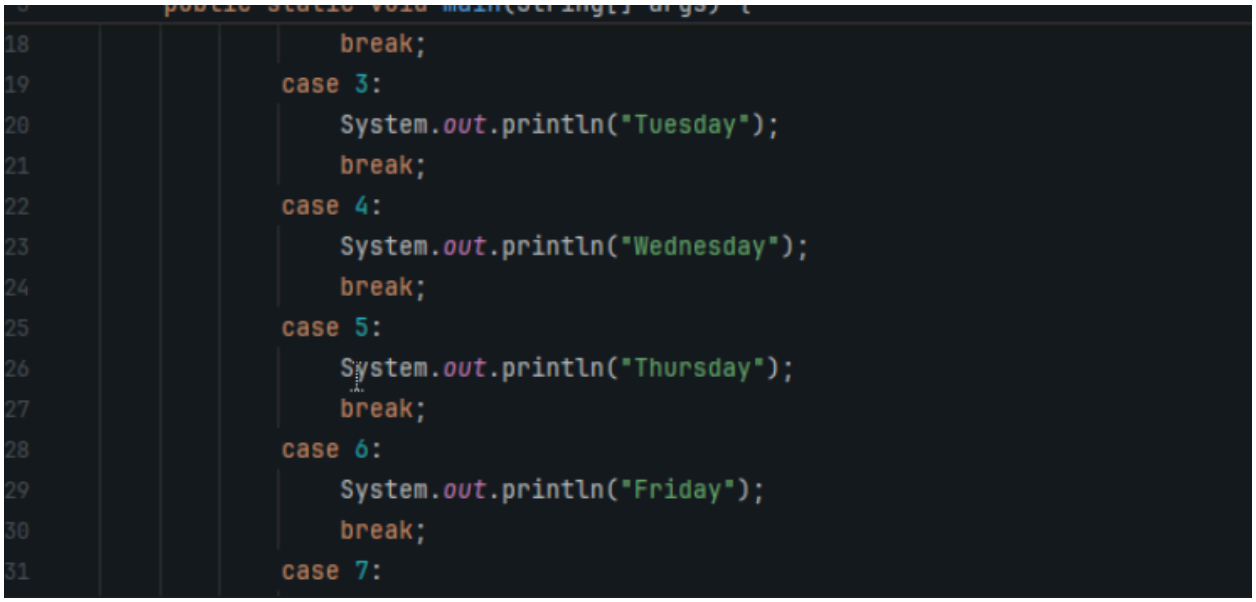
```java
System.out.print("Enter the third number: ");
int num3 = scanner.nextInt();

// Check which number is the greatest
if (num1 >= num2 && num1 >= num3) {
    System.out.println("The greatest number is: " + num1);
} else if (num2 >= num1 && num2 >= num3) {
    System.out.println("The greatest number is: " + num2);
} else {
    System.out.println("The greatest number is: " + num3);
}

// Close the scanner to prevent resource leaks
```



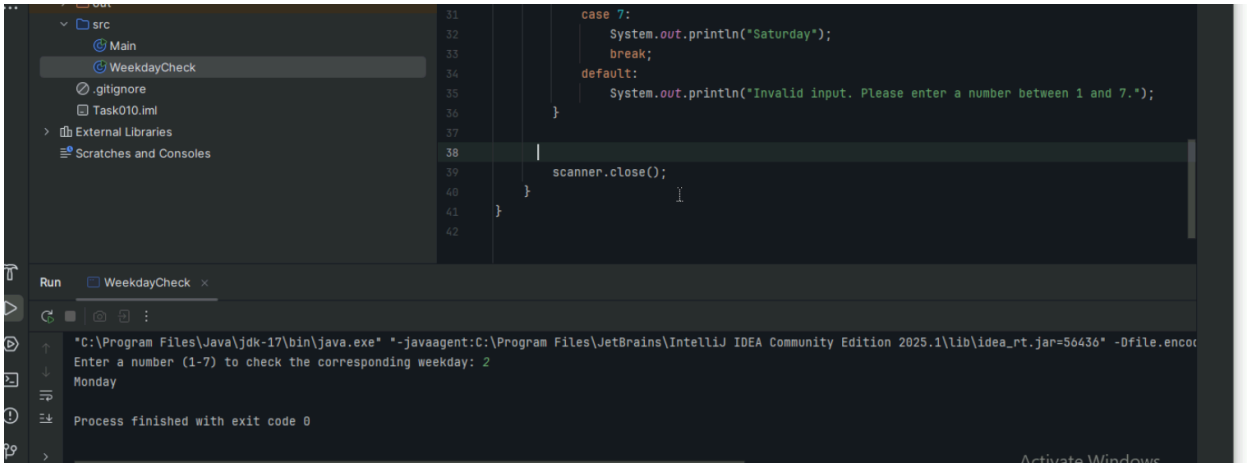
Task 009
Wap to check greater of 3 numbers

Hint 👍
Use elseif





```
            break;
        case 3:
            System.out.println("Tuesday");
            break;
        case 4:
            System.out.println("Wednesday");
            break;
        case 5:
            System.out.println("Thursday");
            break;
        case 6:
            System.out.println("Friday");
            break;
        case 7:
```



```
        case 7:
            System.out.println("Saturday");
            break;
        default:
            System.out.println("Invalid input. Please enter a number between 1 and 7.");
    }

    scanner.close();
}
}
```

```
Run  WeekdayCheck
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.1\lib\idea_rt.jar=56436" -Dfile.encod
Enter a number (1-7) to check the corresponding weekday: 2
Monday

Process finished with exit code 0
```

Task 011:

Wap to check loginid and password validation

Hint use while loop

Scanner sc = new Scanner(System.in);

String loginid = “Prasunamba”
String pwd = “12345867”
Int Count = 0;

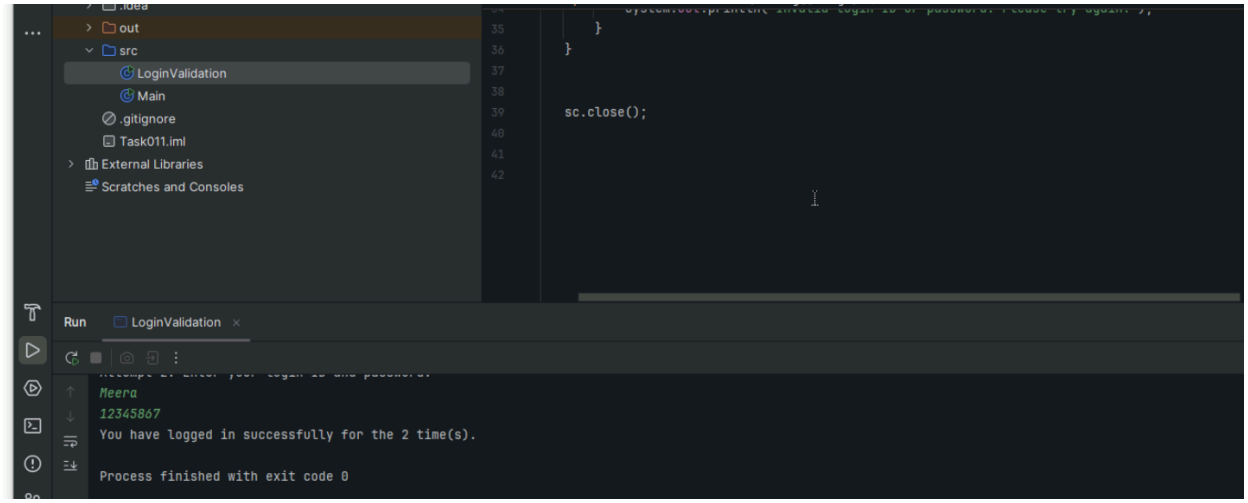
While (loginid == “Prasunamba” && pwd == “12345867”){
sout(“ you have logged in for ”+ count++ +” times”);

```
        sout(“enter ur login id and password”);
        loginid = sc.NextLine();
        pwd = sc.NextLine();
}
```

```java
import java.util.Scanner;
public class LoginValidation {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);


        String correctLoginId = "Meera";
        String correctPwd = "12345867";


        String loginid = "";
        String pwd = "";
        int count = 0;
```

```java
while (!(loginid.equals(correctLoginId) && pwd.equals(correctPwd))) {

    count++;


    System.out.println("Attempt " + count + ": Enter your login ID and password:");

    // Take user input for login id and password
    loginid = sc.nextLine();
    pwd = sc.nextLine();
```

```
    // Take user input for login id and password
    loginid = sc.nextLine();
    pwd = sc.nextLine();


    if (loginid.equals(correctLoginId) && pwd.equals(correctPwd)) {
        System.out.println("You have logged in successfully for the " + count + " time(s).");
    } else {

        System.out.println("Invalid login ID or password. Please try again.");
    }
}
```



Task 012:

Same as above qn but use do while loop

Scanner sc = new Scanner(System.in);

String loginid = “Prasunamba”
String pwd = “12345867”
Int Count = 0;

do{
sout(“ you have logged in for ”+ count++ +” times”);
sout(“enter ur login id and password”);
loginid = sc.NextLine();
pwd = sc.NextLine();
}While (loginid == “Prasunamba” && pwd == “12345867”);

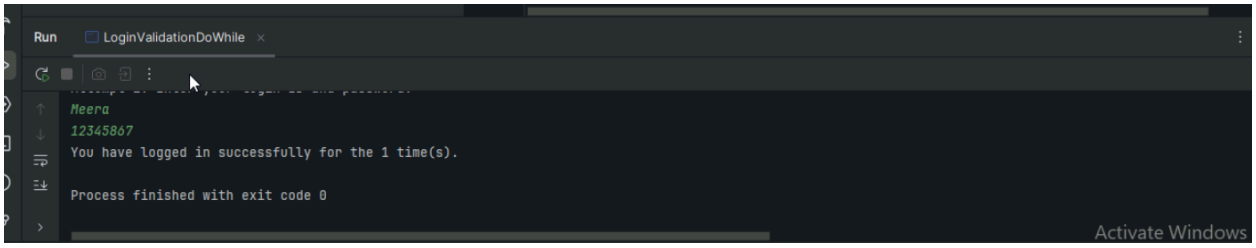
sc.close();

While and do while loops - indefinite loops
For loop is definite…
For (initialization exp; condition exp; incre or decre exp)

```java
import java.util.Scanner;  // Import Scanner to take input from the user

public class LoginValidationDoWhile {

    public static void main(String[] args) {
        // Create a Scanner object to read input from the user
        Scanner sc = new Scanner(System.in);

        //Define the correct login credentials
        String correctLoginId = "Meera";
        String correctPwd = "12345867";

        // Declare variables to store the user input and login attempt counter
        String loginid = "";
        String pwd = "";
        int count = 0;
```

```java
int count = 0;

// Start the do-while loop to check the login credentials
do {
    // Increment the attempt count
    count++;

    // Display the login attempt number
    System.out.println("Attempt " + count + ": Enter your login ID and password:");

    // Take user input for login id and password
    loginid = sc.nextLine();
    pwd = sc.nextLine();
```

```
    public static void main(String[] args) {
            pwd = sc.nextLine();

            if (loginid.equals(correctLoginId) && pwd.equals(correctPwd)) {
                System.out.println("You have logged in successfully for the " + count + " time(s).
            } else {

                System.out.println("Invalid login ID or password. Please try again.");
            }

        } while (!(loginid.equals(correctLoginId) && pwd.equals(correctPwd)));
        sc.close();
    }
}
```



Task 013:

Wap to display numbers from 10 to 1 .. skip 7 and 5.

```
for(int i= 10; i >0; i–){
        If ( i == 5 || i == 7){
                Continue;
        sout(i);
}
```

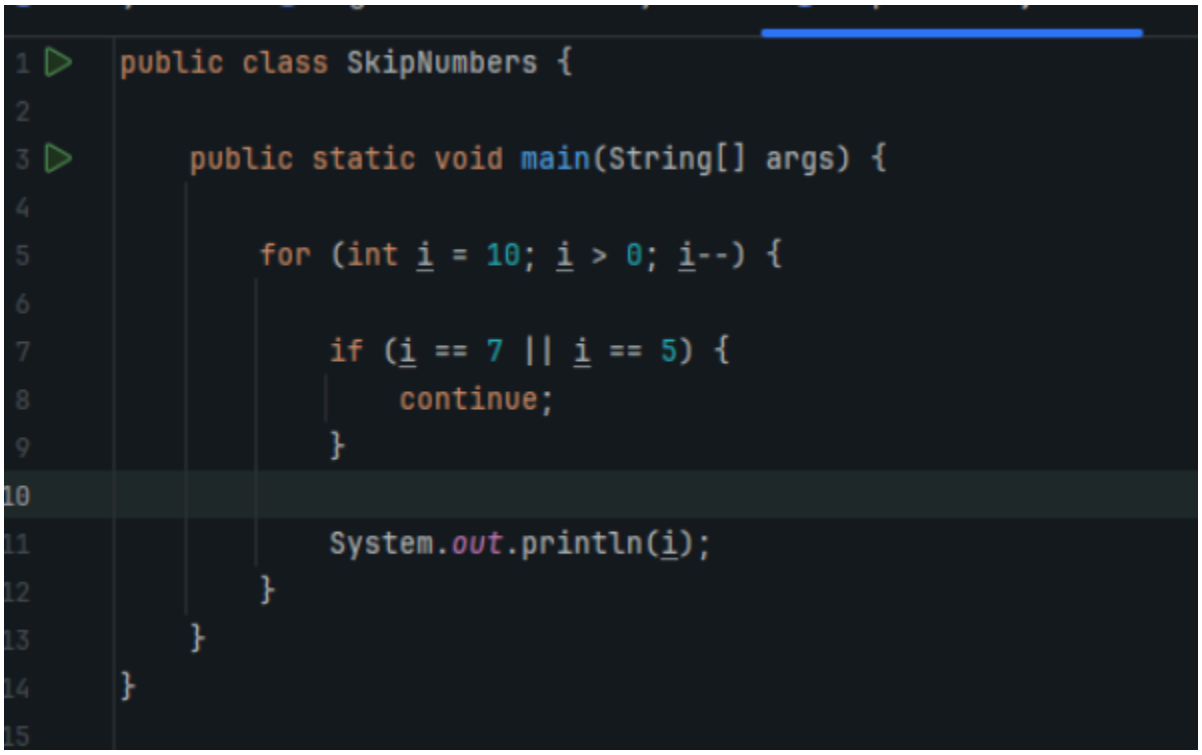
Task 014:

Arrays:

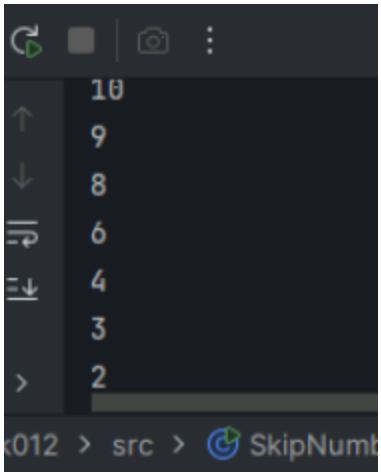
Try the below code and display the output…
Now play with it try to access 5th index and see the output…and try to access -1 index and see the output..

```
package Arrays;

public class Demo01 {

        public static void main(String[] args) {
                // TODO Auto-generated method stub
```

```
        char[] arr = {'a','e','i','o','u'};
        System.out.println(arr);
        String[] names = {"Meena", "Tina", "Veena", "heena"};
        System.out.println(names[0]);
        names[1]= "Reena";
        System.out.println(names[1]);
        System.out.println(names.length);
        System.out.println(names[4]);
        //Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException

    }

}
```



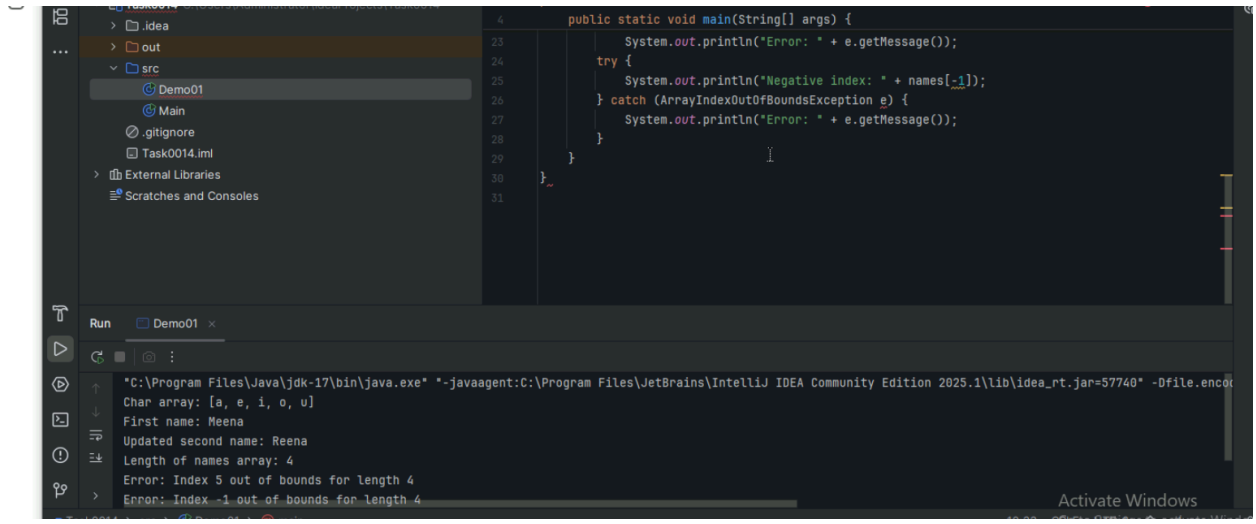
```java
public class SkipNumbers {

    public static void main(String[] args) {

        for (int i = 10; i > 0; i--) {

            if (i == 7 || i == 5) {
                continue;
            }

            System.out.println(i);
        }
    }
}
```



Enter name 5

```java
public class Demo01 {

    public static void main(String[] args) {


        char[] arr = {'a', 'e', 'i', 'o', 'u'};


        System.out.println("Char array: " + java.util.Arrays.toString(arr));


        String[] names = {"Meena", "Tina", "Veena", "heena"};


        System.out.println("First name: " + names[0]);
```

```
    System.out.println("First name: " + names[0]);
    names[1] = "Reena";
    System.out.println("Updated second name: " + names[1]);
    System.out.println("Length of names array: " + names.length);
    try {
        System.out.println("5th index: " + names[5]);
    } catch (ArrayIndexOutOfBoundsException e) {
        System.out.println("Error: " + e.getMessage());
    try {
        System.out.println("Negative index: " + names[-1]);
    } catch (ArrayIndexOutOfBoundsException e) {
        System.out.println("Error: " + e.getMessage());
    }
}
```

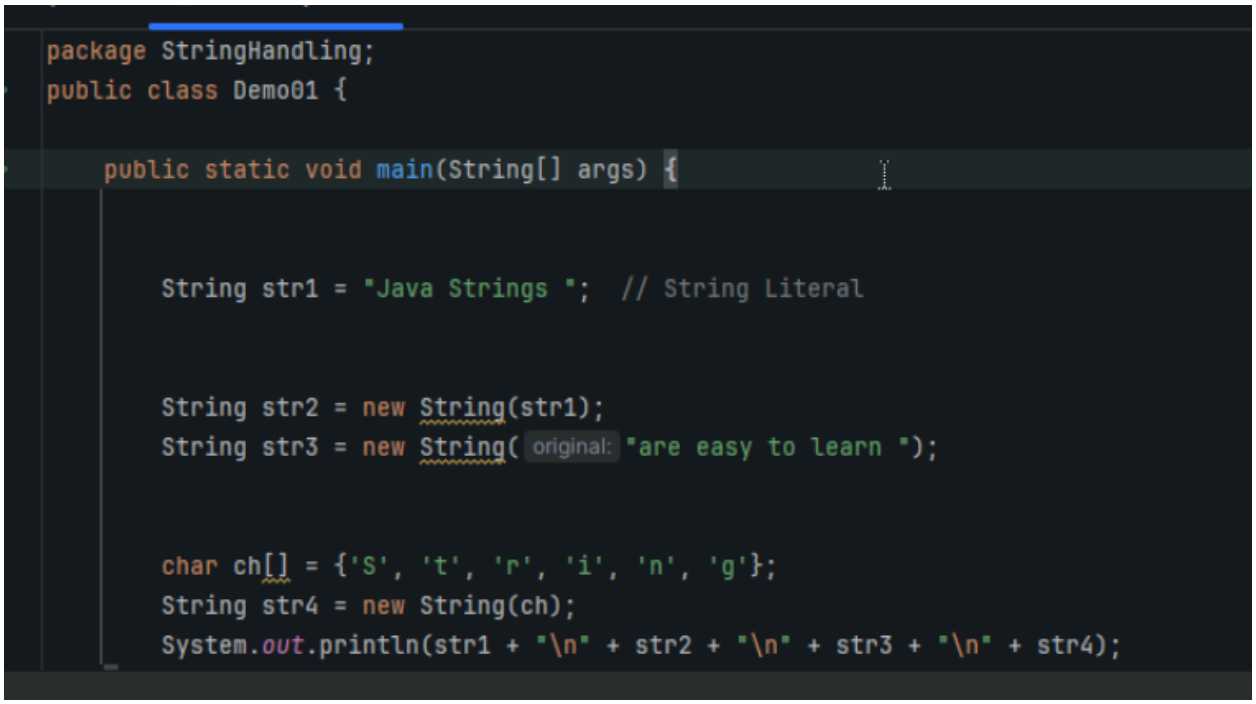


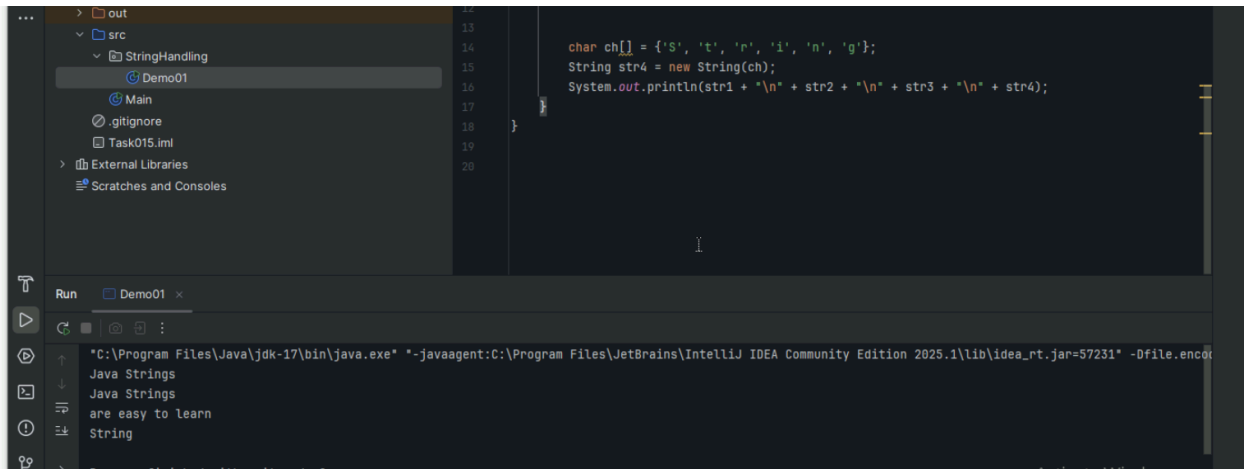

```
Length of names array: 4
Error: Index 5 out of bounds for length 4
Error: Index -1 out of bounds for length 4

Process finished with exit code 0
```

Task 015:

package StringHandling;

```
public class Demo01 {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		String str1 = "Java Strings "; // string Literal
		String str2 = new String(str1); // obj of the string - new keyword
		String str3 = new String("are easy to learn ");
		char ch[] = {'S', 't', 'r' ,'i', 'n', 'g'};
		String str4 = new String(ch);
		System.out.println(str1 + "\n" + str2 + "\n" +str3 + "\n" +str4);

	}

}
```



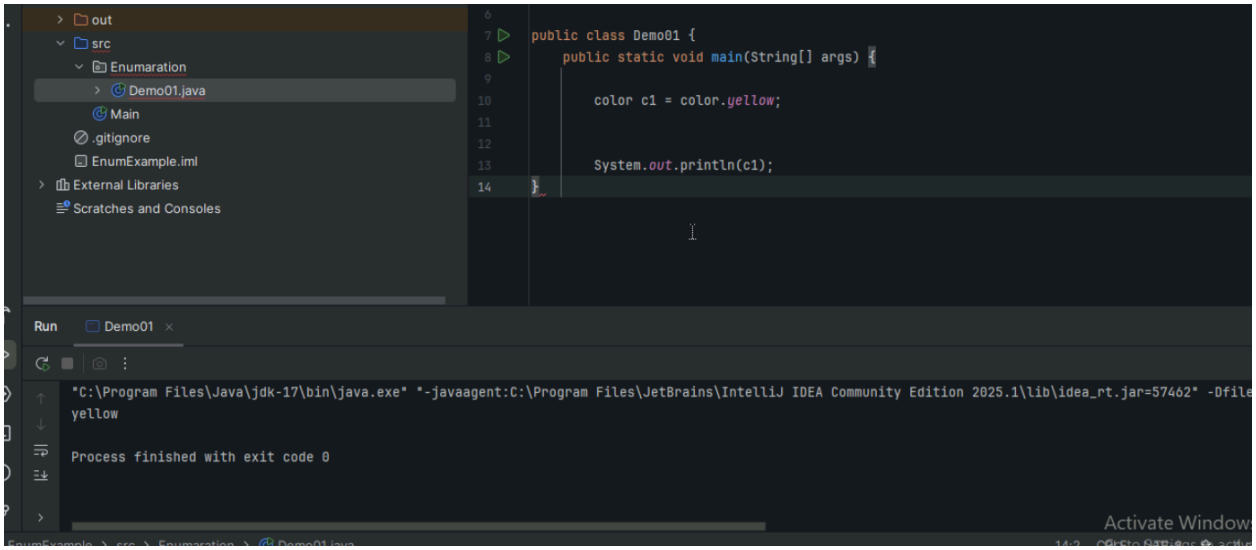


Task 016

Enums or Enumerations

What is the output of the below code snippet

```
package Enumerations;
enum color{
        red, blue, green, yellow
}
public class Demo01 {

        public static void main(String[] args) {
                color c1 = color.yellow;
                System.out.println(c1);
        }
}
```



Task 017:
Getter and setter

Create a program name Person.java

```
public class Person {
  private String name;

  // Getter
  public String getName() {
    return name;
  }

  // Setter
  public void setName(String newName) {
    this.name = newName;
  }
}
```

Create another program named Task017.java

```
public class Task017{
 public static void main(String[] args) {
   Person myObj = new Person();
   myObj.name = "John";
   System.out.println(myObj.name);
 }
}
```

—----------what is the reason for the error —----------explain

Because trying to **access a private field (`name`) directly** from another class.
myObj.name = "John"; Cannot access private field

1. The variable `name` is declared `private` in the `Person` class:

`private` means:

The variable can only be accessed inside the `Person` class

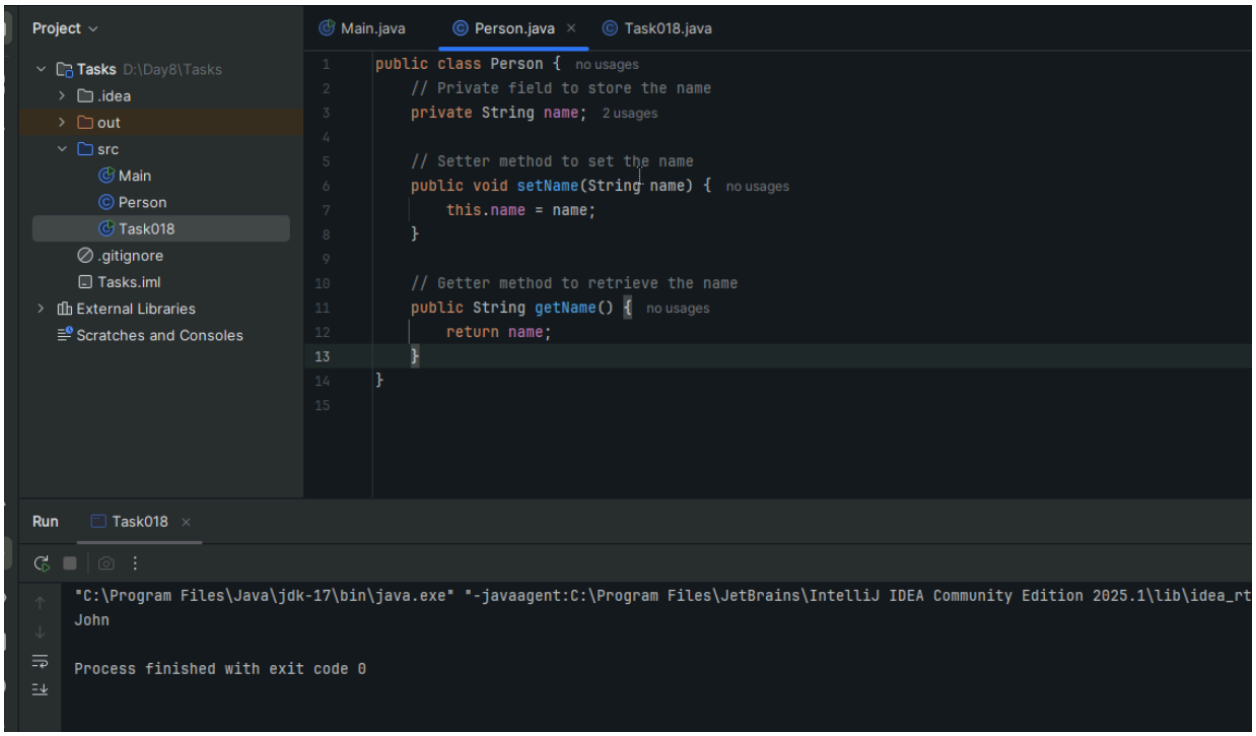
It is not visible or accessible from other classes like `Task017`

Task 018

Now create one more program named Task018.java

```
public class Main {
  public static void main(String[] args) {
    Person myObj = new Person();
    myObj.setName("John");
    System.out.println(myObj.getName());
  }
}
```

Now —----------think what is the output of the above code—----------


Project
Tasks D:\Day8\Tasks
.idea
out
src
Main
Person
Task018
.gitignore
Tasks.iml
External Libraries
Scratches and Consoles
Main.java
Person.java
Task018.java
public class Person { no usages
// Private field to store the name
private String name; 2 usages
// Setter method to set the name
public void setName(String name) { no usages
this.name = name;
}
// Getter method to retrieve the name
public String getName() { no usages
return name;
}
}
Run
Task018
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.1\lib\idea_rt
John
Process finished with exit code 0