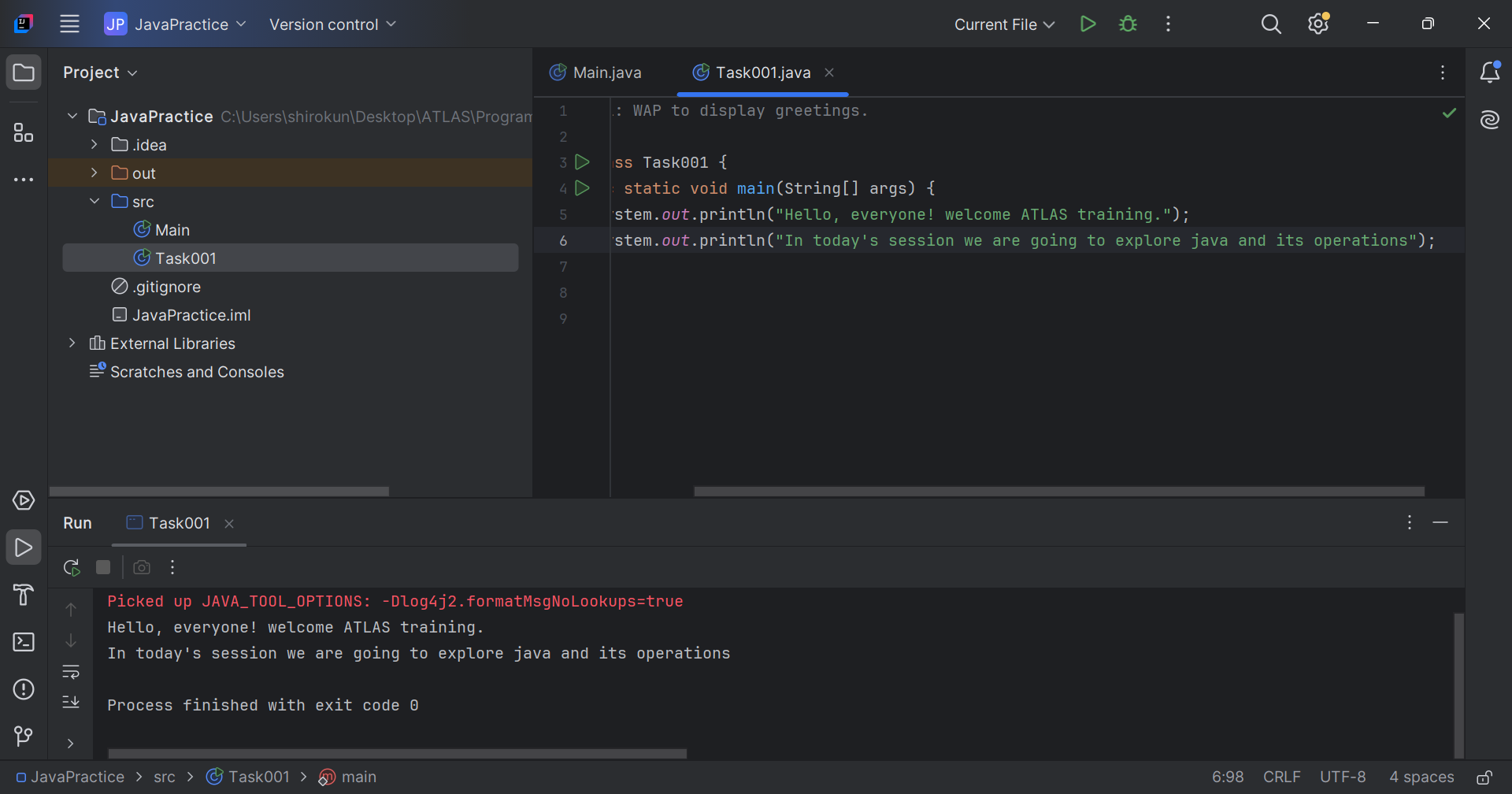
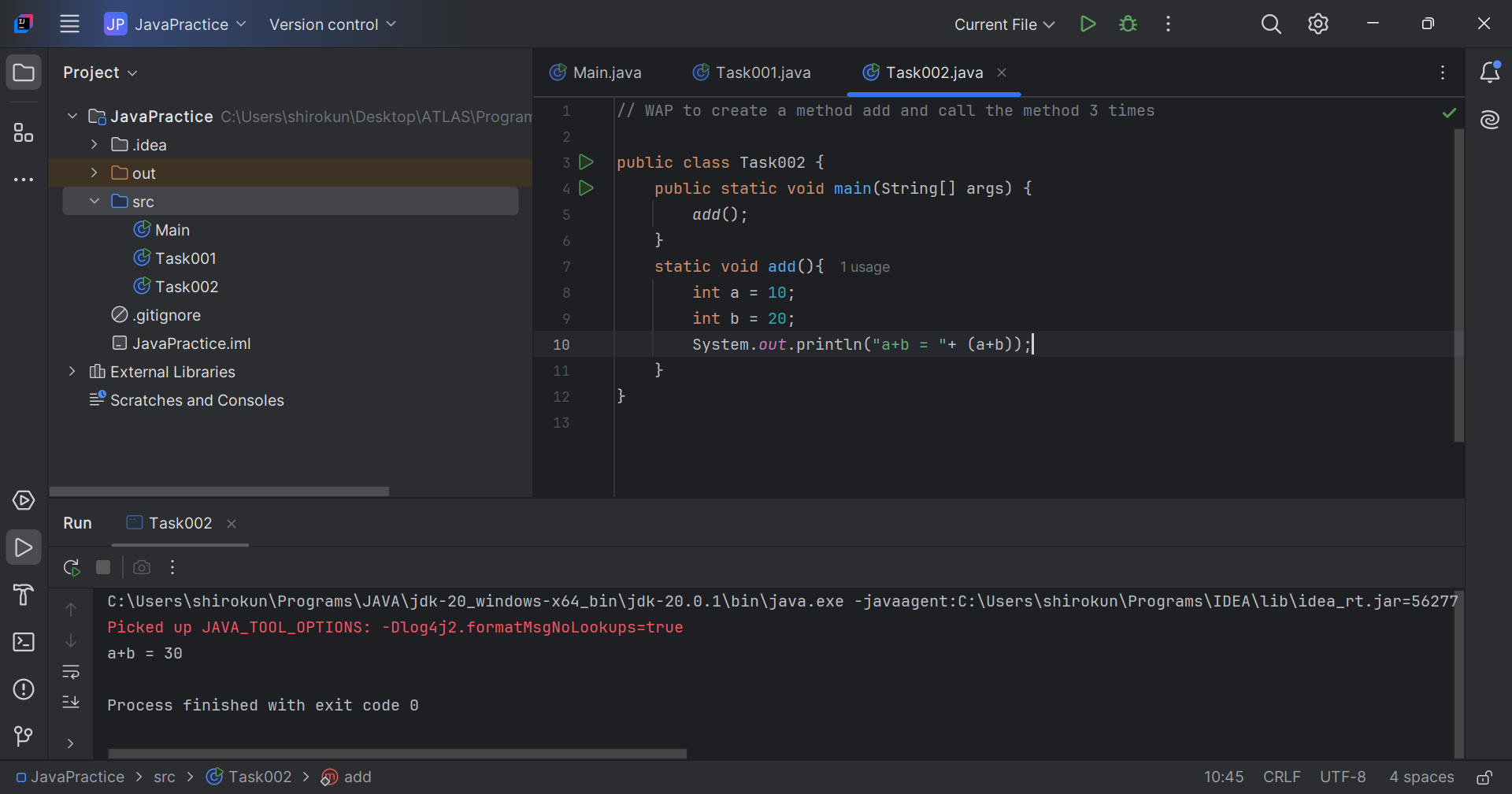
Day 7 – 06/06/2025

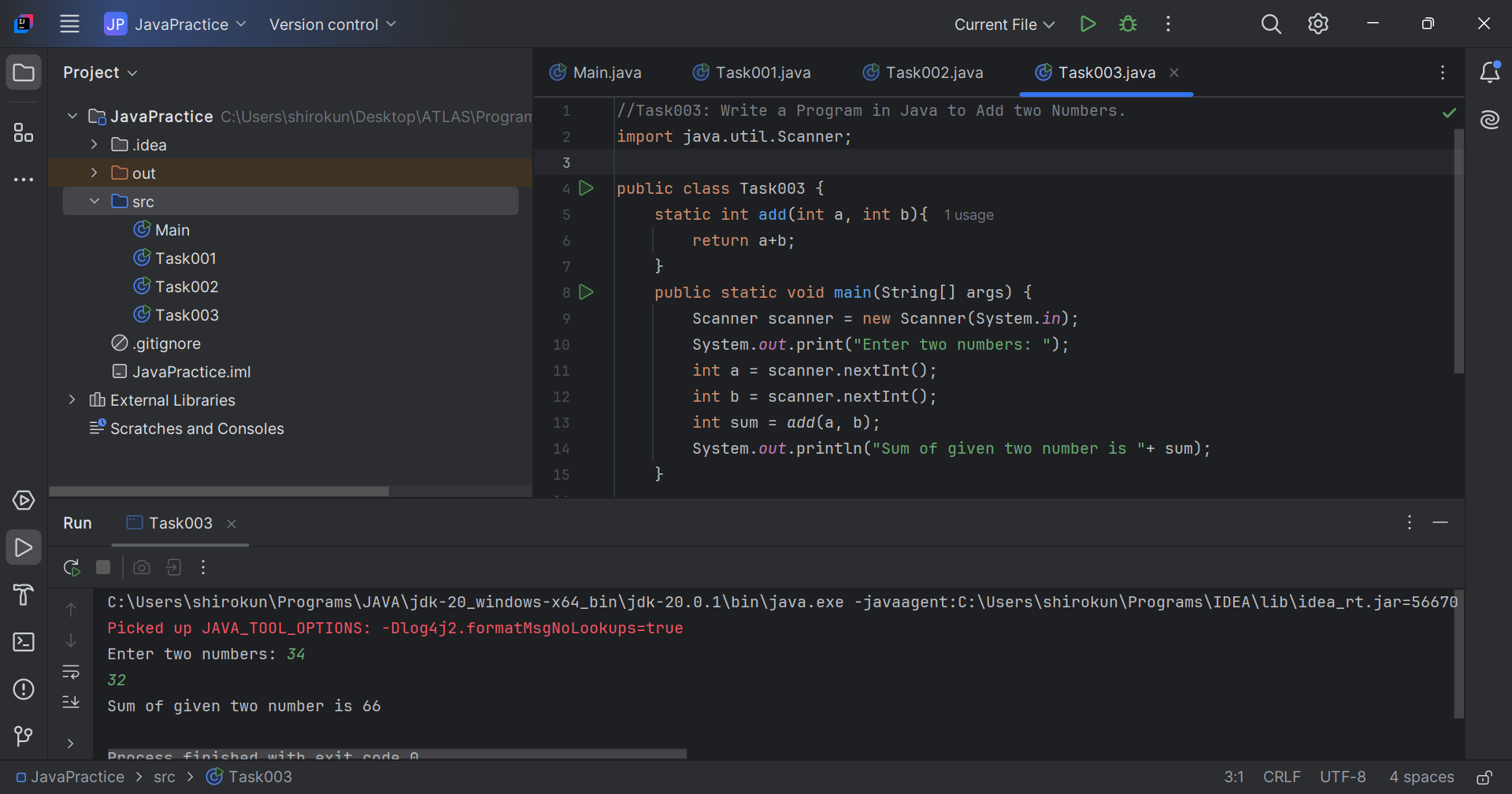
// Task001: WAP to display greetings.  
  
public class Task001 {  
 public static void main(String[] args) {  
 System.*out*.println("Hello, everyone! welcome ATLAS training.");  
 System.*out*.println("In today's session we are going to explore java and its operations");  
 }  
}



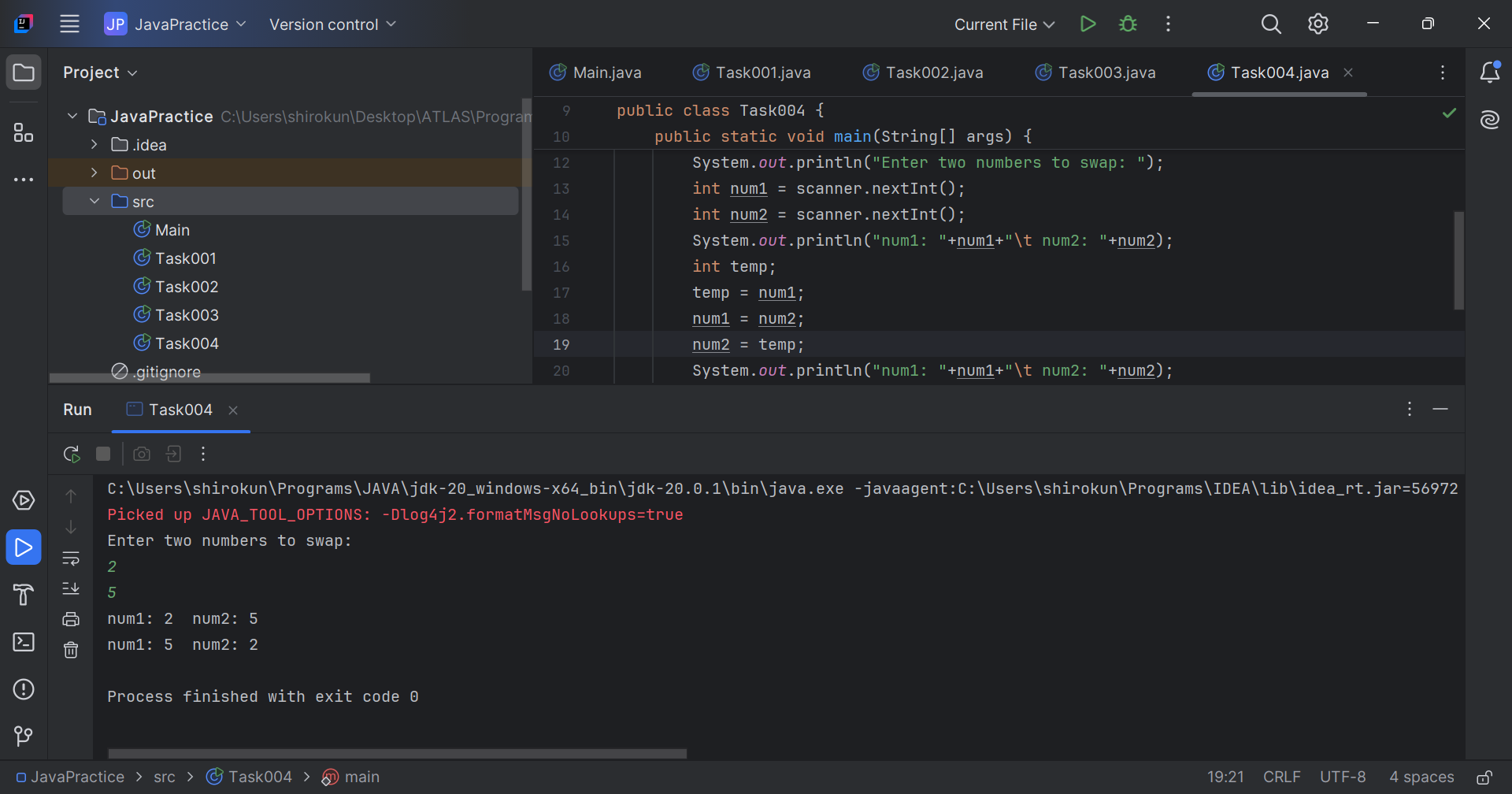
// Task002 WAP to create a method add and call the method 3 times  
  
public class Task002 {  
 public static void main(String[] args) {  
 *add*();  
 }  
 static void add(){  
 int a = 10;  
 int b = 20;  
 System.*out*.println("a+b = "+ (a+b));  
 }  
}



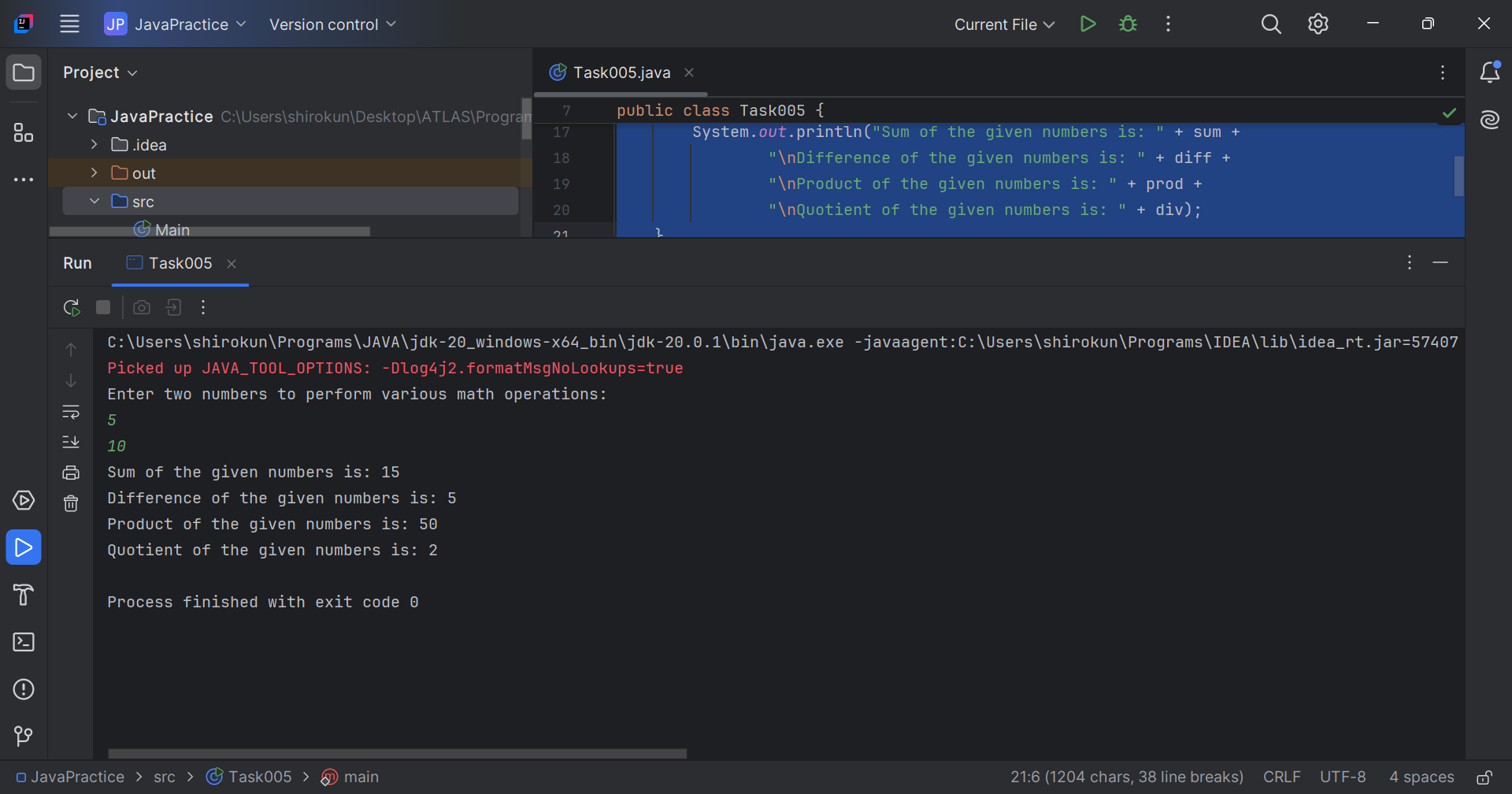
//Task003: Write a Program in Java to Add two Numbers.  
import java.util.Scanner;  
  
public class Task003 {  
 static int add(int a, int b){  
 return a+b;  
 }  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.print("Enter two numbers: ");  
 int a = scanner.nextInt();  
 int b = scanner.nextInt();  
 int sum = *add*(a, b);  
 System.*out*.println("Sum of given two number is "+ sum);  
 }  
  
}



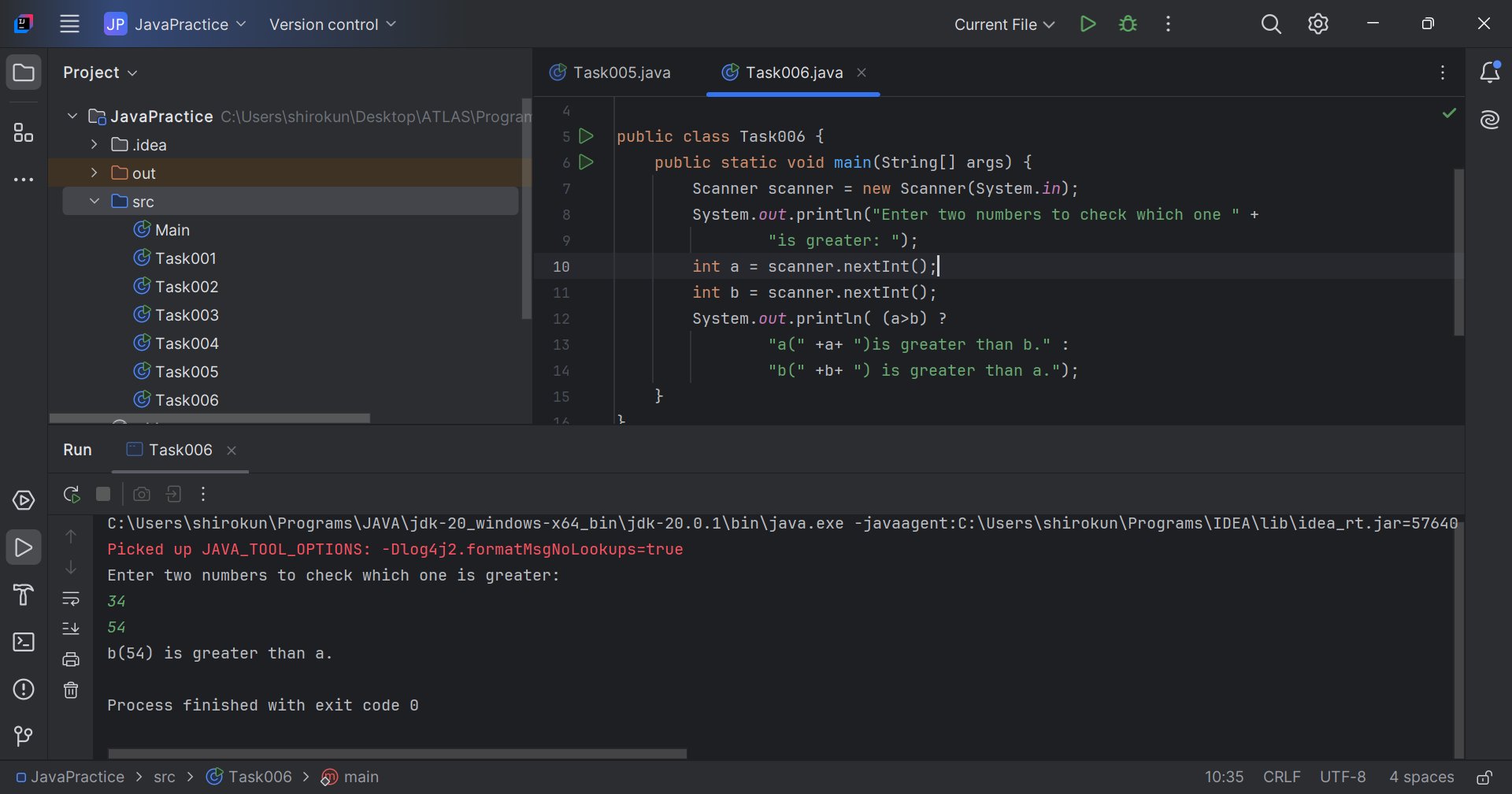
/\*Task004  
Write a Program to Swap Two Numbers  
Input: a=2 b=5  
Output: a=5 b=2  
\*/  
  
import java.util.Scanner;  
  
public class Task004 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.println("Enter two numbers to swap: ");  
 int num1 = scanner.nextInt();  
 int num2 = scanner.nextInt();  
 System.*out*.println("num1: "+num1+"\t num2: "+num2);  
 int temp;  
 temp = num1;  
 num1 = num2;  
 num2 = temp;  
 System.*out*.println("num1: "+num1+"\t num2: "+num2);  
 }  
}



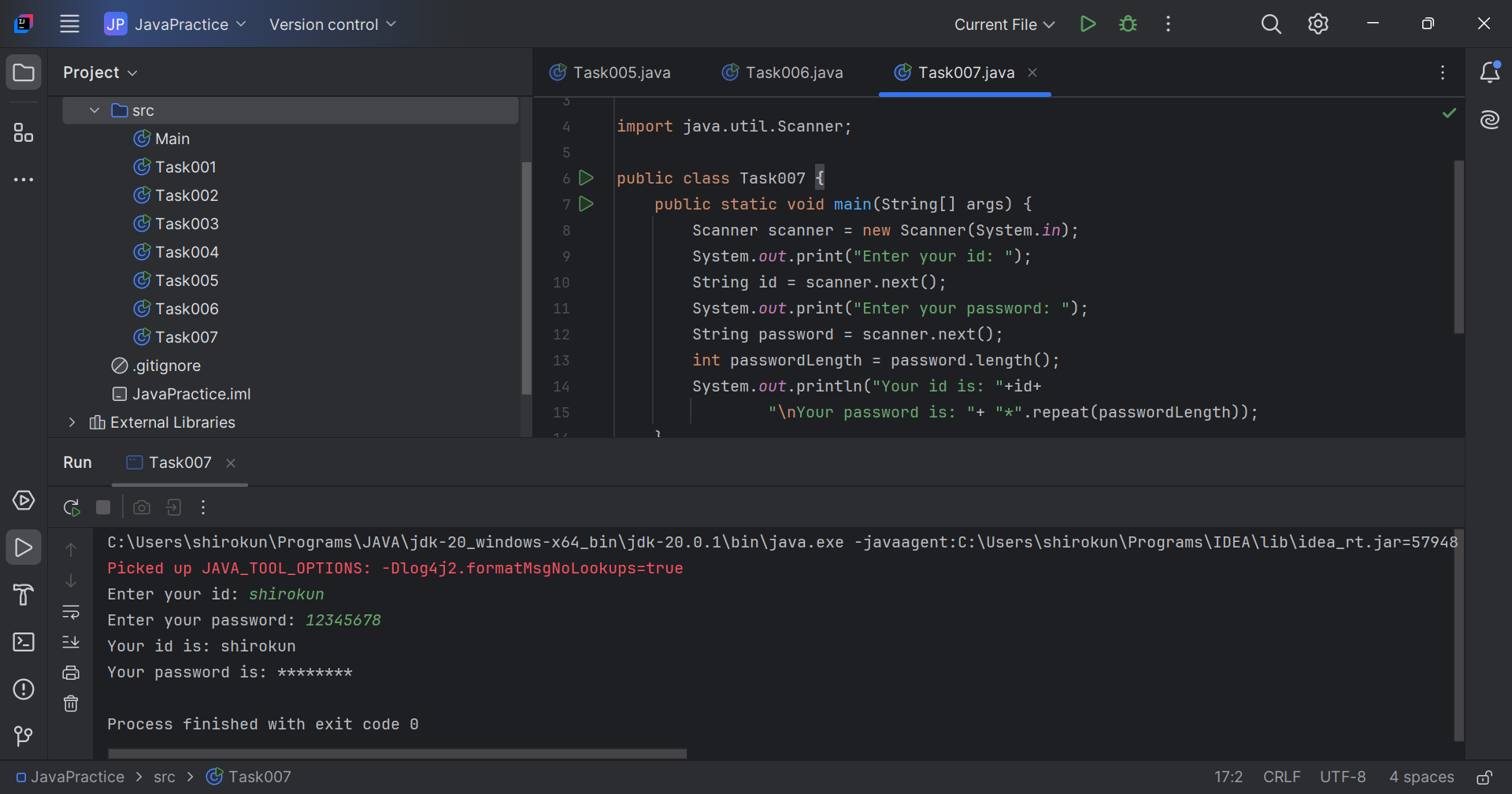
/\*Task005  
Create a code in which you have 4 methods add, subtract, multiply and divide  
(return type int) with a main method to call all the other methods.  
\*/  
import java.util.Scanner;  
public class Task005 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.println("Enter two numbers to perform various math operations: ");  
 int num1 = scanner.nextInt();  
 int num2 = scanner.nextInt();  
 int sum = *sum*(num1, num2);  
 int diff = *sub*(num1, num2);  
 int prod = *prod*(num1, num2);  
 int div = *div*(num1, num2);  
 System.*out*.println("Sum of the given numbers is: " + sum +  
 "\nDifference of the given numbers is: " + diff +  
 "\nProduct of the given numbers is: " + prod +  
 "\nQuotient of the given numbers is: " + div);  
 }  
  
 private static int div(int num1, int num2) {  
 return num2/num1;  
 }  
 private static int prod(int num1, int num2) {  
 return num1\*num2;  
 }  
 private static int sub(int num1, int num2) {  
 return num2-num1;  
 }  
 private static int sum(int num1, int num2) {  
 return num1+num2;  
 }  
}



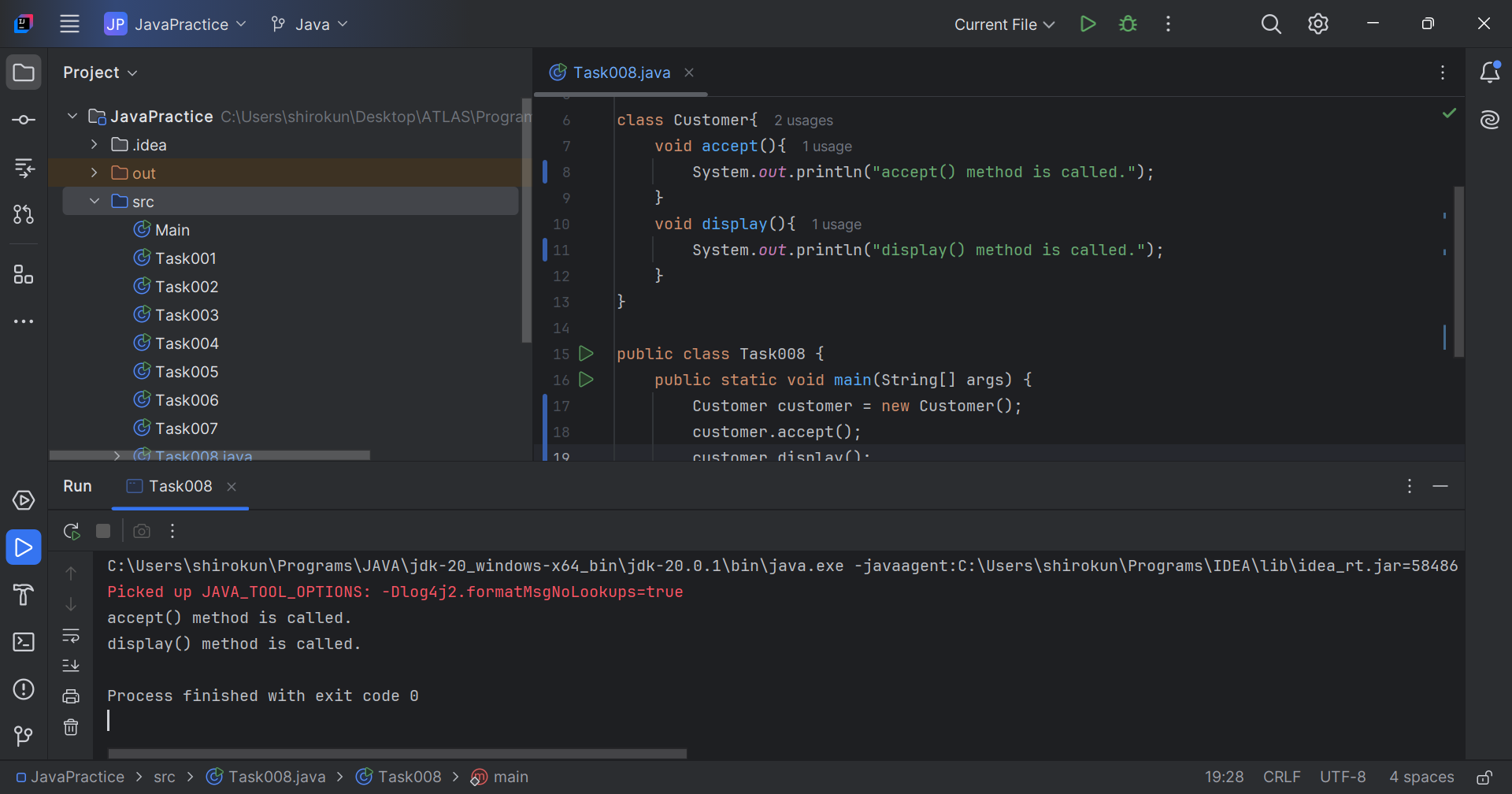
// Task 006: Write a program to check if 'a' is greater or 'b'. Use ternary op  
  
import java.util.Scanner;  
  
public class Task006 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.println("Enter two numbers to check which one " +  
 "is greater: ");  
 int a = scanner.nextInt();  
 int b = scanner.nextInt();  
 System.*out*.println( (a>b) ?  
 "a(" +a+ ")is greater than b." :   
 "b(" +b+ ") is greater than a.");  
 }  
}



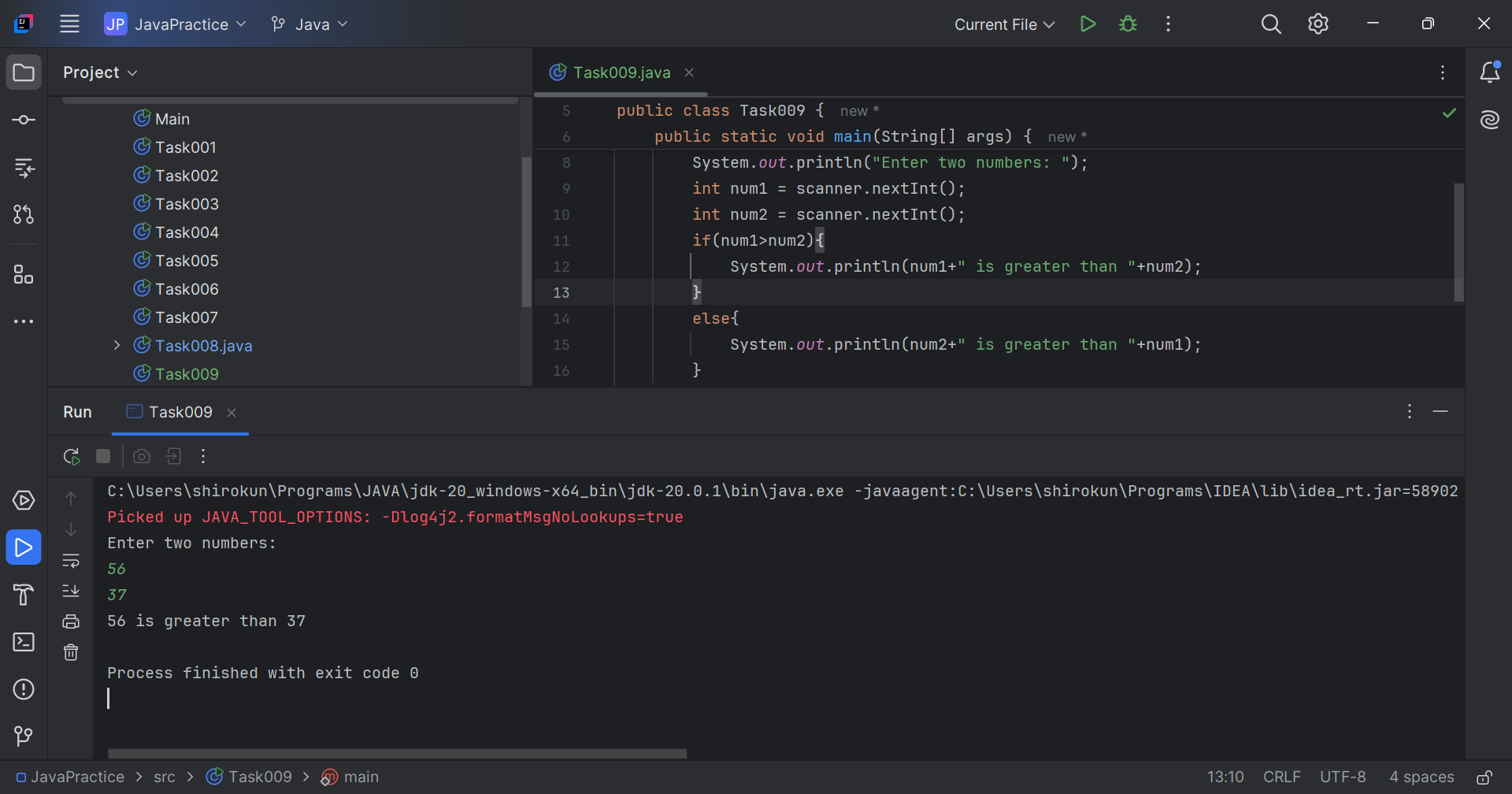
//Task007: Write a program to take input from the user  
// and display it to the user  
  
import java.util.Scanner;  
  
public class Task007 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.print("Enter your id: ");  
 String id = scanner.next();  
 System.*out*.print("Enter your password: ");  
 String password = scanner.next();  
 int passwordLength = password.length();  
 System.*out*.println("Your id is: "+id+  
 "\nYour password is: "+ "\*".repeat(passwordLength));  
 }  
}



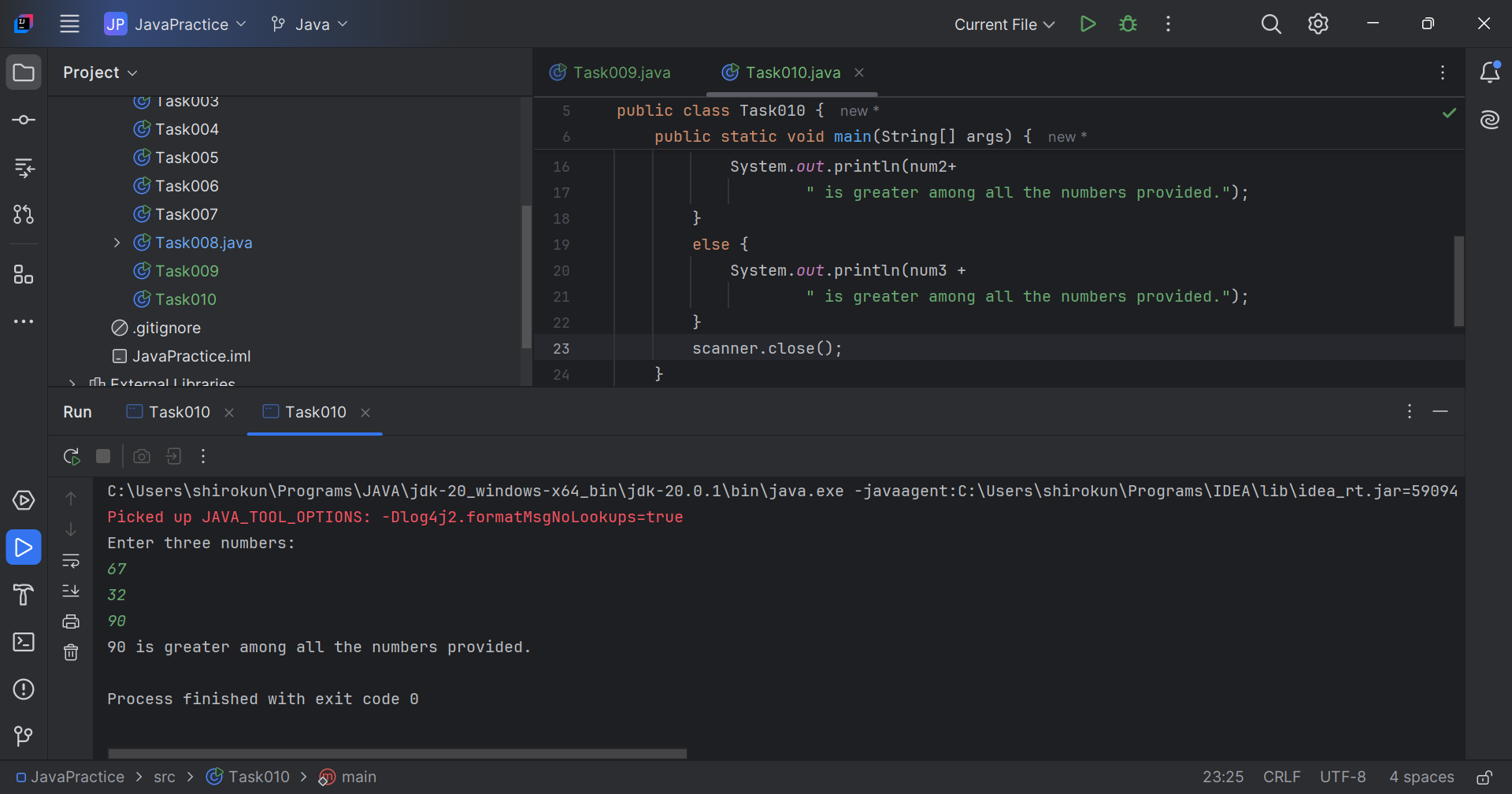
/\*Task008  
Write a program to create a class named Customer  
Call the customer class in Task008 class using an object.  
\*/  
  
class Customer{  
 void accept(){  
 System.*out*.println("accept() method is called.");  
 }  
 void display(){  
 System.*out*.println("display() method is called.");  
 }  
}  
  
public class Task008 {  
 public static void main(String[] args) {  
 Customer customer = new Customer();  
 customer.accept();  
 customer.display();  
 }  
}



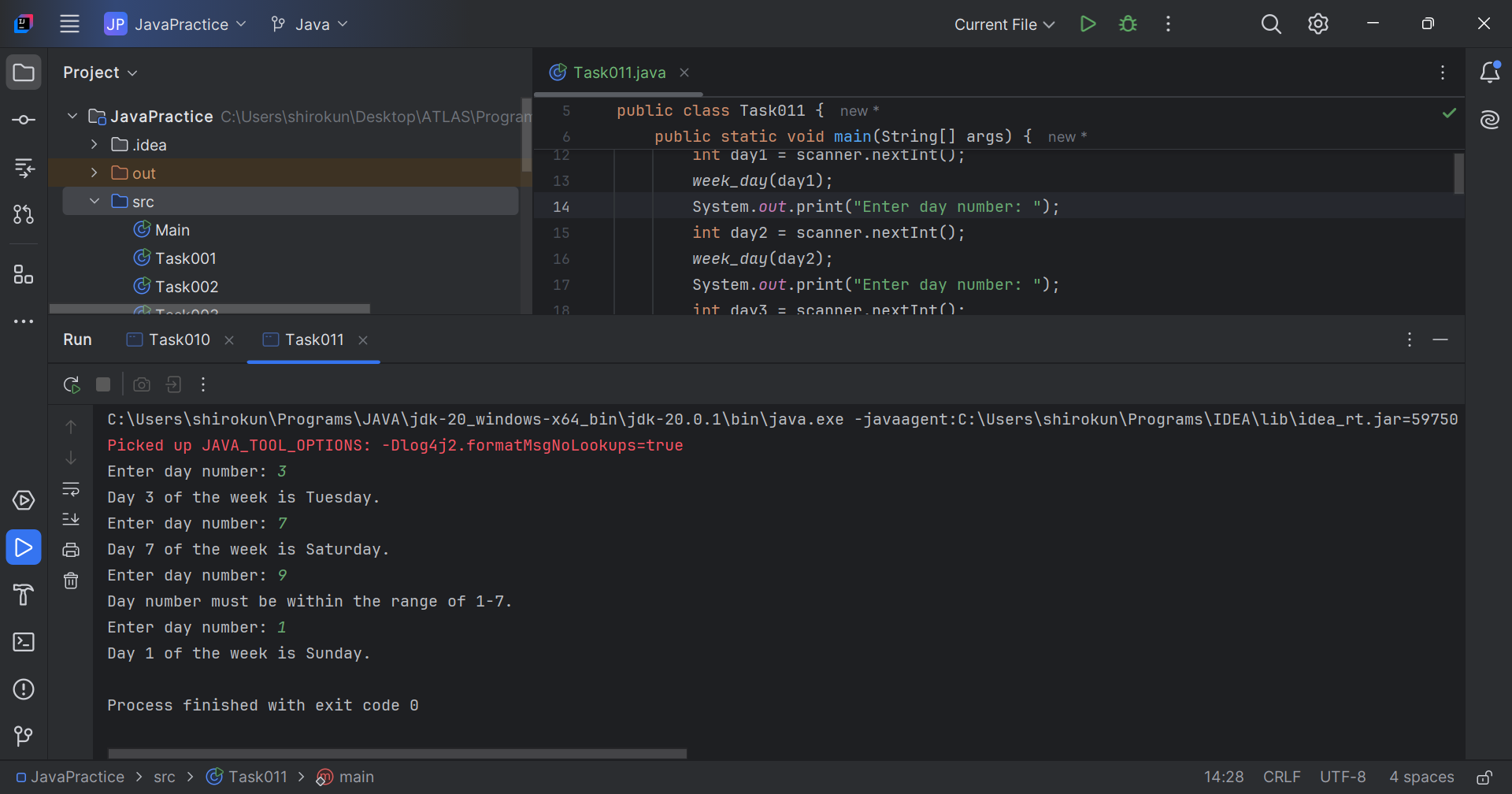
// Task009: WAP to check the greater of 2 numbers. Hint: Use if else  
  
import java.util.Scanner;  
  
public class Task009 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.println("Enter two numbers: ");  
 int num1 = scanner.nextInt();  
 int num2 = scanner.nextInt();  
 if(num1>num2){  
 System.*out*.println(num1+" is greater than "+num2);  
 }  
 else{  
 System.*out*.println(num2+" is greater than "+num1);  
 }  
 }  
}



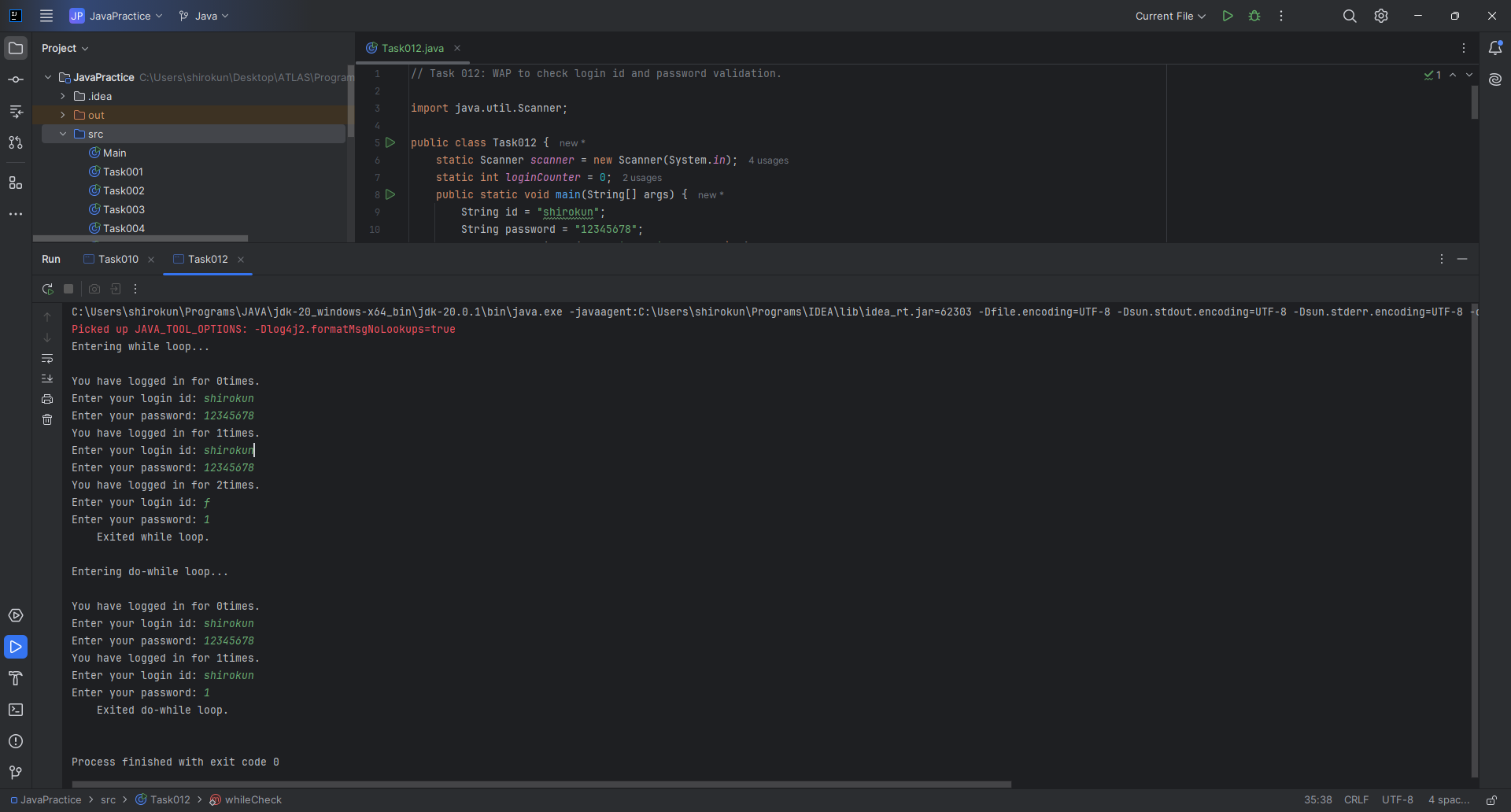
//Task010: WAP to check greater of 3 numbers  
  
import java.util.Scanner;  
  
public class Task010 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.println("Enter three numbers: ");  
 int num1 = scanner.nextInt();  
 int num2 = scanner.nextInt();  
 int num3 = scanner.nextInt();  
 if (num1>num2 && num1>num3){  
 System.*out*.println(num1+  
 " is greater among all the numbers provided.");  
 } else if (num2>num1 && num2>num3) {  
 System.*out*.println(num2+  
 " is greater among all the numbers provided.");  
 }  
 else {  
 System.*out*.println(num3 +  
 " is greater among all the numbers provided.");  
 }  
 scanner.close();  
 }  
}



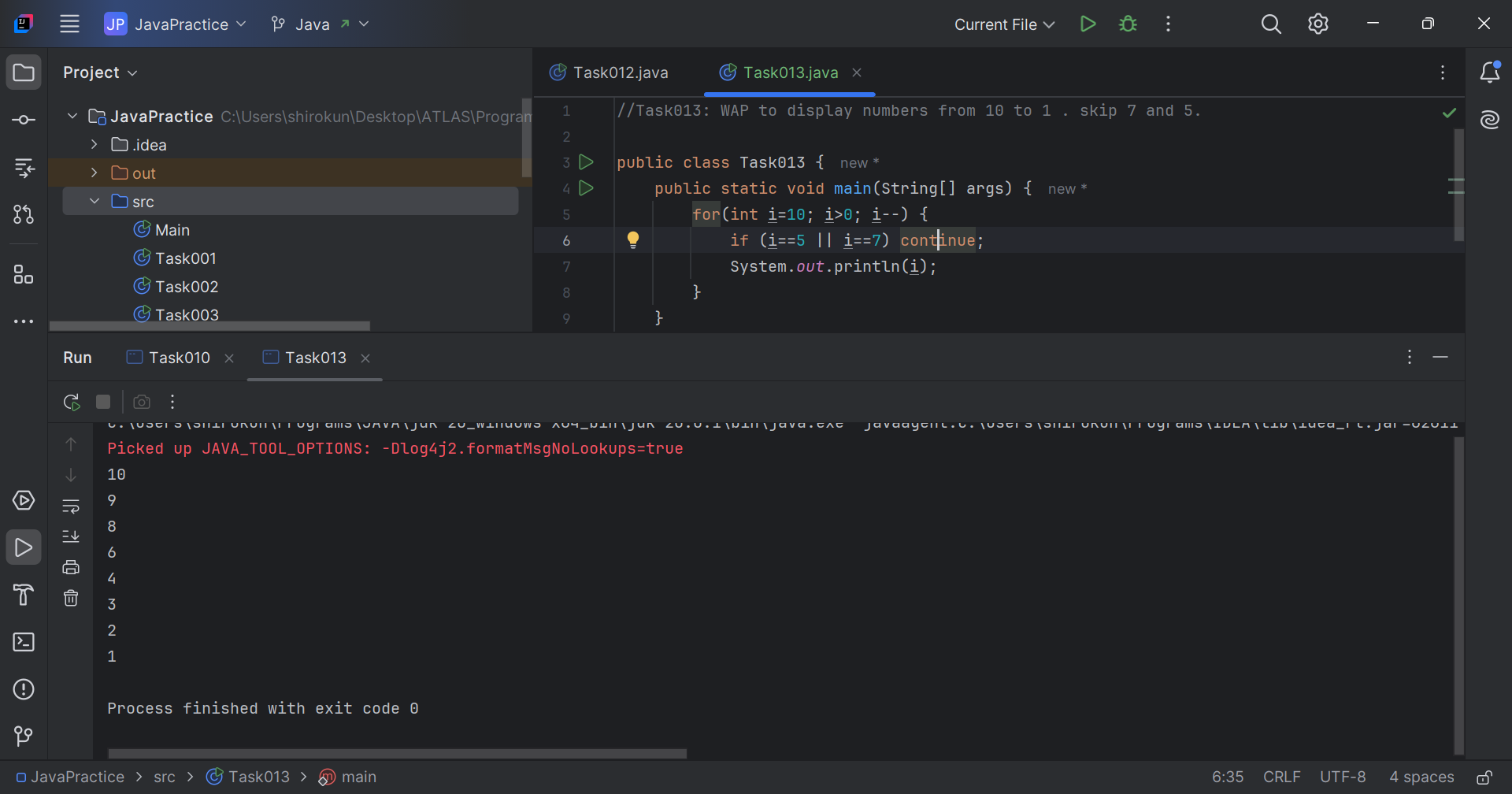
//Task011: WAP to check if week days. Switch case.  
  
import java.util.Scanner;  
  
public class Task011 {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.print("Enter day number: ");  
 int day = scanner.nextInt();  
 *week\_day*(day);  
 System.*out*.print("Enter day number: ");  
 int day1 = scanner.nextInt();  
 *week\_day*(day1);  
 System.*out*.print("Enter day number: ");  
 int day2 = scanner.nextInt();  
 *week\_day*(day2);  
 System.*out*.print("Enter day number: ");  
 int day3 = scanner.nextInt();  
 *week\_day*(day3);  
 scanner.close();  
 }  
  
 private static void week\_day(int day) {  
 switch(day){  
 case 1:  
 System.*out*.println("Day "+day+  
 " of the week is Sunday.");  
 return;  
 case 2:  
 System.*out*.println("Day "+day+  
 " of the week is Monday.");  
 return;  
 case 3:  
 System.*out*.println("Day "+day+  
 " of the week is Tuesday.");  
 return;  
 case 4:  
 System.*out*.println("Day "+day+  
 " of the week is Wednesday.");  
 return;  
 case 5:  
 System.*out*.println("Day "+day+  
 " of the week is Thursday.");  
 return;  
 case 6:  
 System.*out*.println("Day "+day+  
 " of the week is Friday.");  
 return;  
 case 7:  
 System.*out*.println("Day "+day+  
 " of the week is Saturday.");  
 return;  
 default: System.*out*.println(  
 "Day number must be within the range of 1-7.");  
 }  
 }  
}



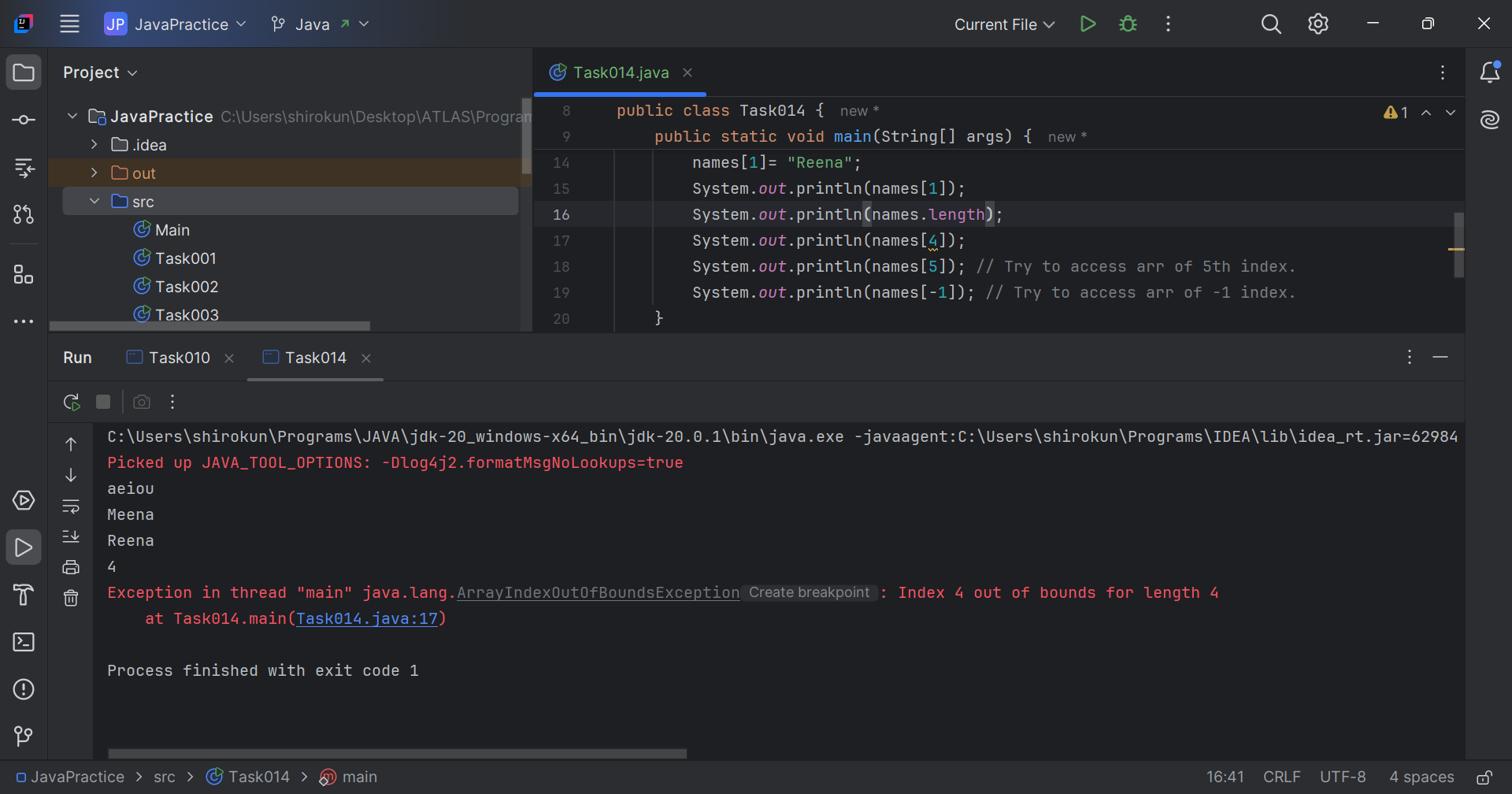
// Task 012: WAP to check login id and password validation.  
  
import java.util.Scanner;  
  
public class Task012 {  
 static Scanner *scanner* = new Scanner(System.*in*);  
 static int *loginCounter* = 0;  
 public static void main(String[] args) {  
 String id = "shirokun";  
 String password = "12345678";  
 System.*out*.println("Entering while loop...\n");  
 *whileCheck*(id, password, *loginCounter*);  
 System.*out*.println("\tExited while loop.\n");  
 System.*out*.println("Entering do-while loop...\n");  
 *do\_whileCheck*(id, password, *loginCounter*);  
 System.*out*.println("\tExited do-while loop.\n");  
 }  
  
 private static void do\_whileCheck(  
 String id, String password, int loginCounter) {  
 String inputId, inputPassword;  
 do {  
 System.*out*.println("You have logged in for "+  
 loginCounter++ +"times.");  
 System.*out*.print("Enter your login id: ");  
 inputId = *scanner*.next();  
 System.*out*.print("Enter your password: ");  
 inputPassword = *scanner*.next();  
 }while (inputId.equals(id) && inputPassword.equals(password));  
 }  
  
 private static void whileCheck(  
 String id, String password, int loginCounter) {  
 String inputId = id, inputPassword = password;  
 while ((inputPassword.equals(password)) && (inputId.equals(id))){  
 System.*out*.println("You have logged in for "+  
 loginCounter++ +"times.");  
 System.*out*.print("Enter your login id: ");  
 inputId = *scanner*.next();  
 System.*out*.print("Enter your password: ");  
 inputPassword = *scanner*.next();  
 }  
 }  
}



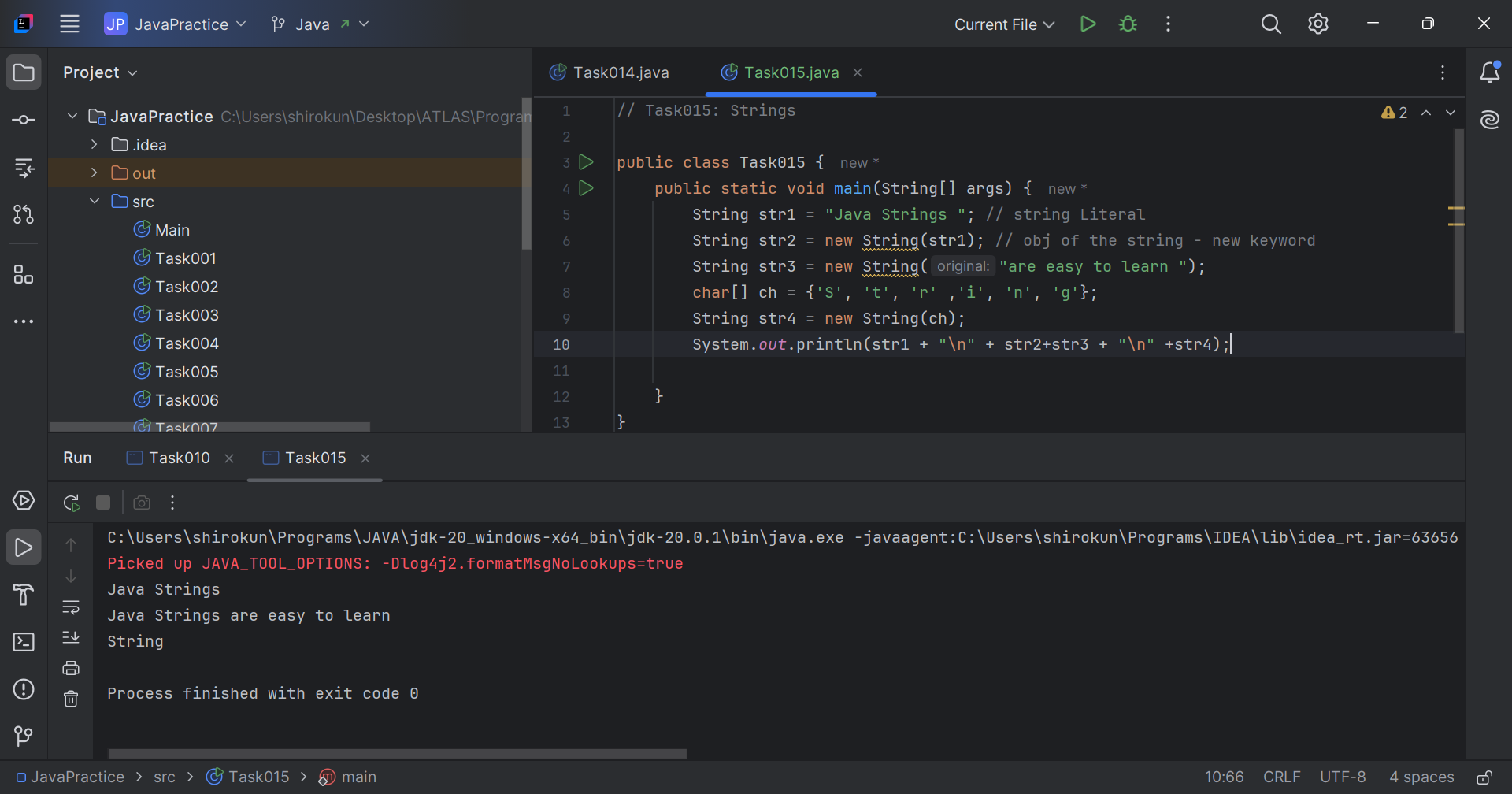
//Task013: WAP to display numbers from 10 to 1 . skip 7 and 5.  
  
public class Task013 {  
 public static void main(String[] args) {  
 for(int i=10; i>0; i--) {  
 if (i==5 || i==7) continue;  
 System.*out*.println(i);  
 }  
 }  
}



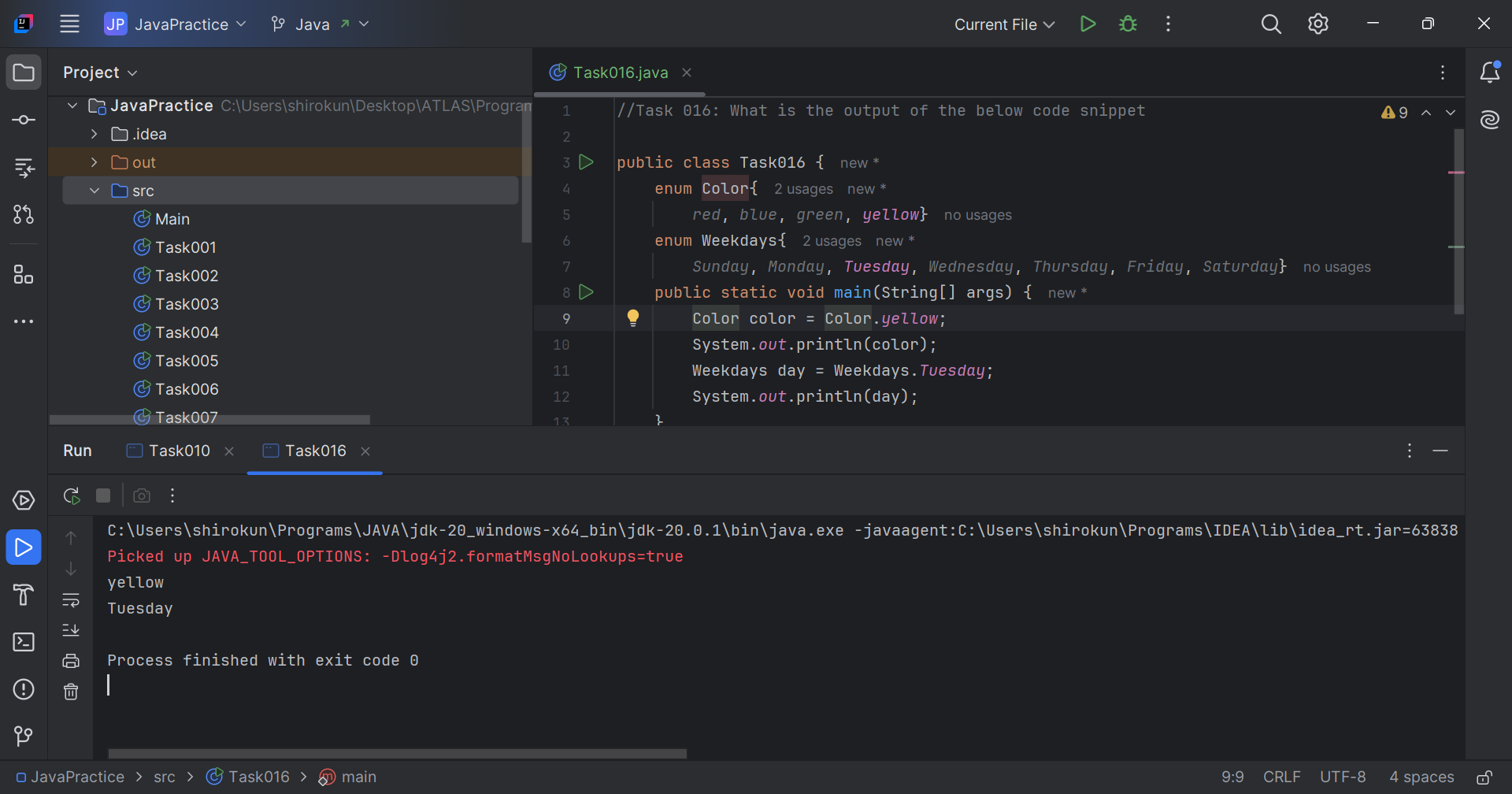
/\*  
Task 014  
Arrays: Try the below code and display the output.  
Now play with it try to access arr of 5th index and see the output  
and try to access arr of -1 index and see the output.  
\*/  
  
public class Task014 {  
 public static void main(String[] args) {  
 char[] arr = {'a','e','i','o','u'};  
 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]);  
 System.*out*.println(names[5]); // Try to access arr of 5th index.  
 System.*out*.println(names[-1]); // Try to access arr of -1 index.  
 }  
}



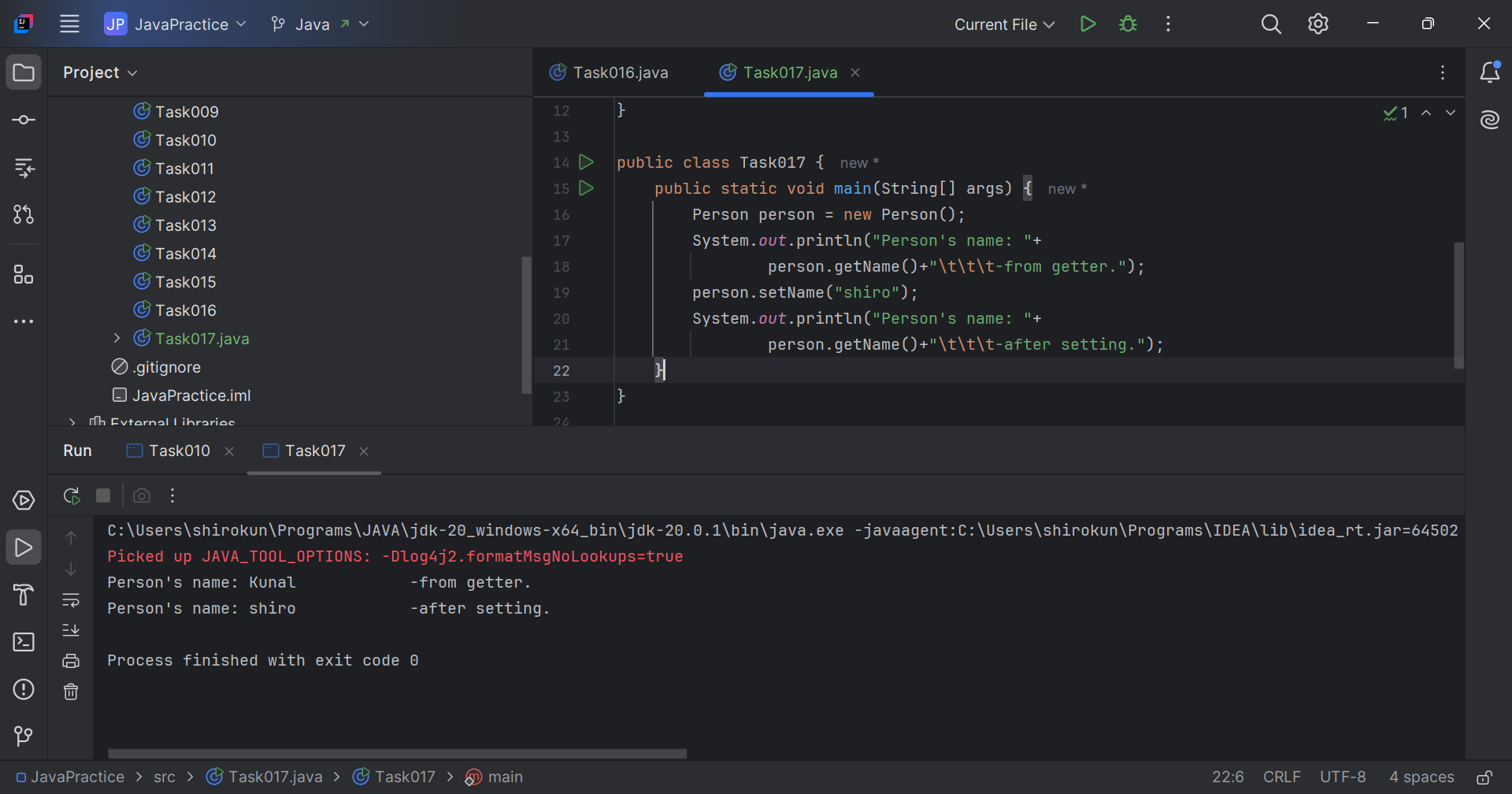
// Task015: Strings  
  
public class Task015 {  
 public static void main(String[] args) {  
 String str1 = "Java Strings "; // string Literal  
 String str2 = new String(str1); // obj of the string - new keyword  
 String str3 = new String("are easy to learn ");  
 char[] ch = {'S', 't', 'r' ,'i', 'n', 'g'};  
 String str4 = new String(ch);  
 System.*out*.println(str1 + "\n" + str2+str3 + "\n" +str4);  
  
 }  
}



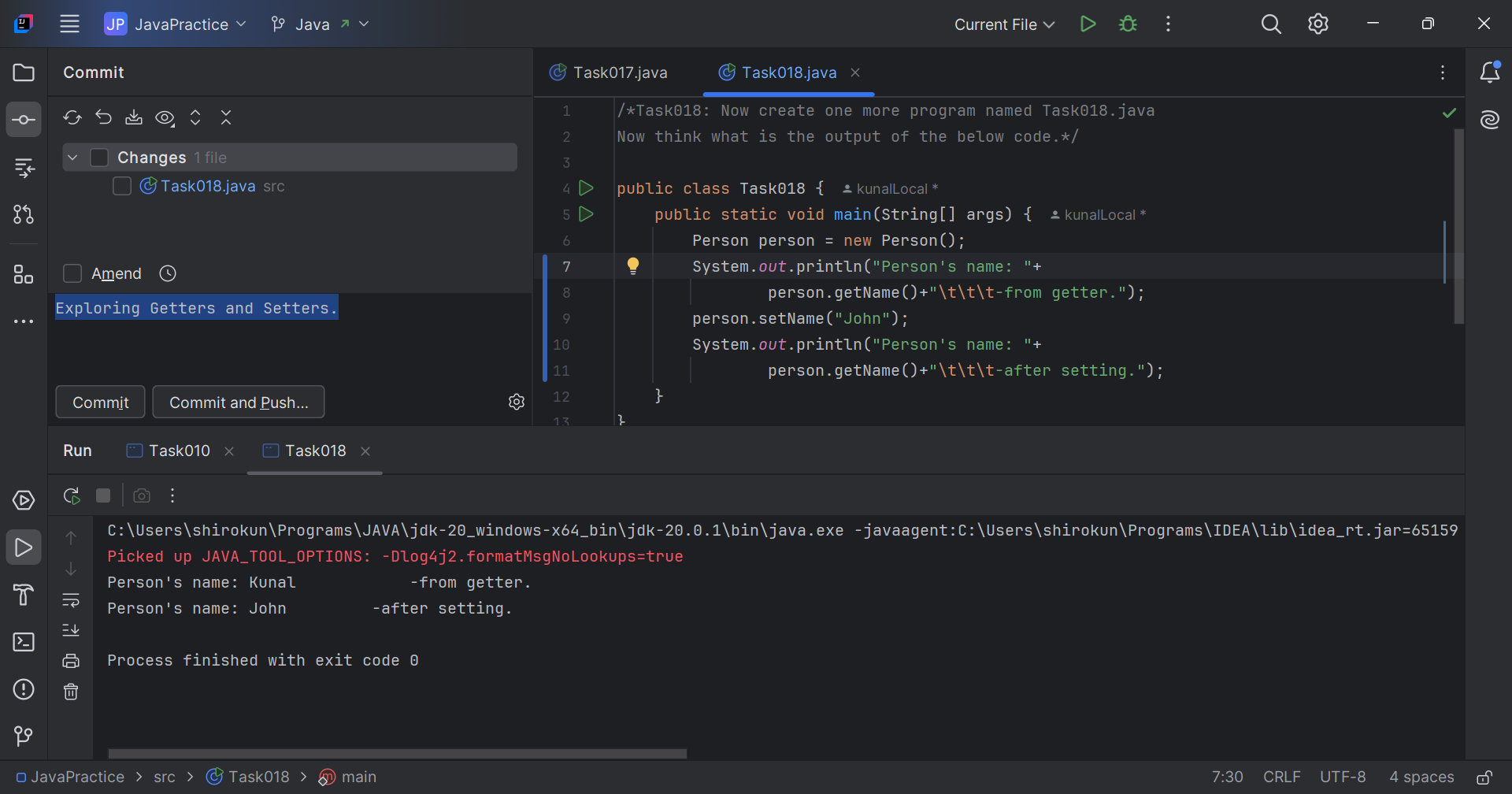
//Task016: What is the output of the below code snippet  
  
public class Task016 {  
 enum Color{  
 *red*, *blue*, *green*, *yellow*}  
 enum Weekdays{  
 *Sunday*, *Monday*, *Tuesday*, *Wednesday*, *Thursday*, *Friday*, *Saturday*}  
 public static void main(String[] args) {  
 Color color = Color.*yellow*;  
 System.*out*.println(color);  
 Weekdays day = Weekdays.*Tuesday*;  
 System.*out*.println(day);  
 }  
}



// Task017: Getter and Setter  
  
class Person{  
 private String name = "Kunal";  
  
 public String getName(){  
 return name;  
 }  
 public void setName(String name){  
 this.name = name;  
 }  
}  
  
public class Task017 {  
 public static void main(String[] args) {  
 Person person = new Person();  
 System.*out*.println("Person's name: "+  
 person.getName()+"\t\t\t-from getter.");  
 person.setName("shiro");  
 System.*out*.println("Person's name: "+  
 person.getName()+"\t\t\t-after setting.");  
 }  
}

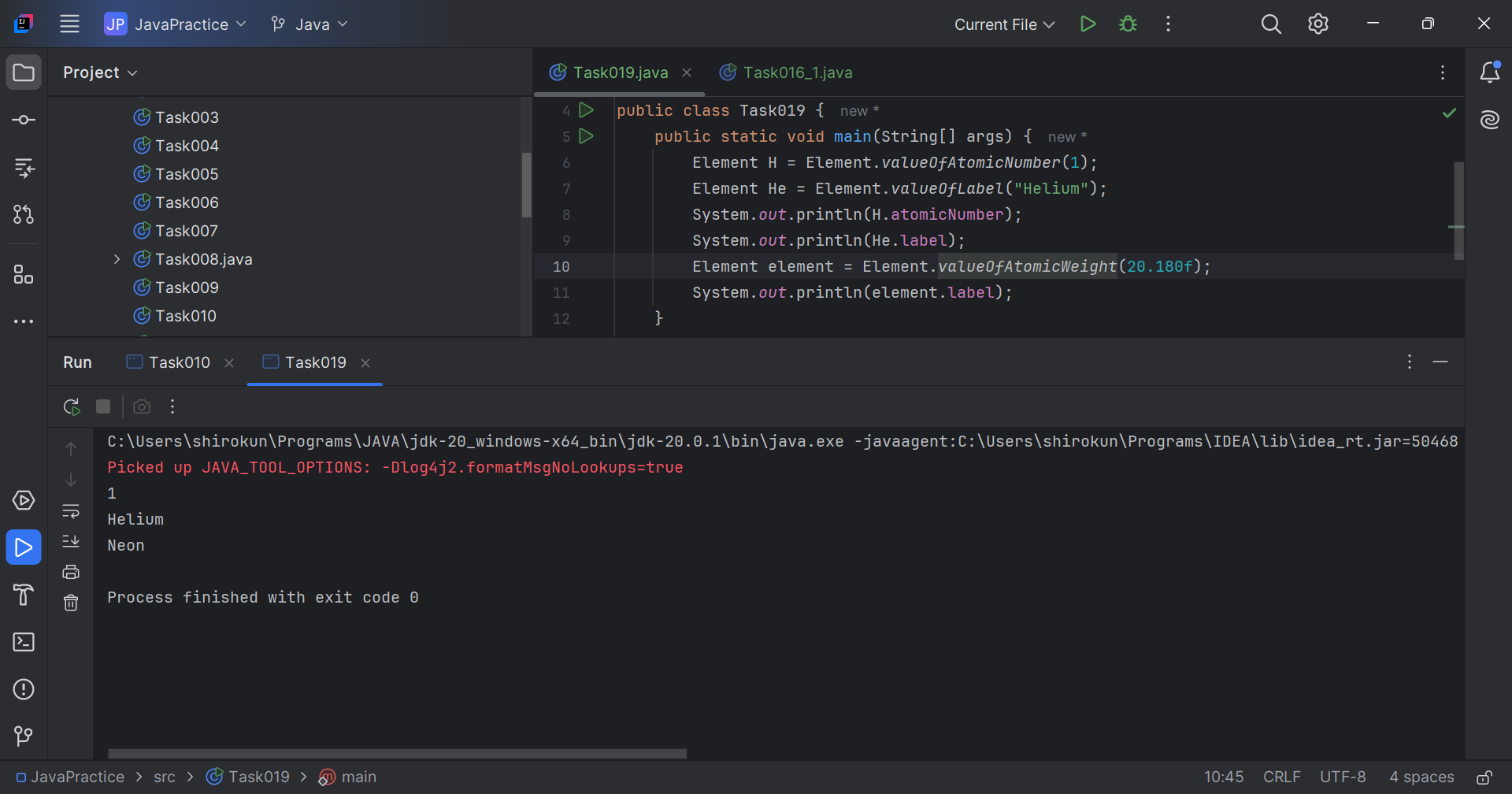


/\*Task018: Now create one more program named Task018.java  
Now think what is the output of the below code. \*/  
  
public class Task018 {  
 public static void main(String[] args) {  
 Person person = new Person();  
 System.*out*.println("Person's name: "+  
 person.getName()+"\t\t\t-from getter.");  
 person.setName("John");  
 System.*out*.println("Person's name: "+  
 person.getName()+"\t\t\t-after setting.");  
 }  
}



//Task016\_1: Enums – understand the code  
  
  
import java.util.HashMap;  
import java.util.Map;  
  
enum Element {  
 *H*("Hydrogen", 1, 1.008f),  
 *HE*("Helium", 2, 4.0026f),  
 *NE*("Neon", 10, 20.180f);  
  
 private static final Map<String, Element> *BY\_LABEL* = new HashMap<>();  
 private static final Map<Integer, Element> *BY\_ATOMIC\_NUMBER* = new HashMap<>();  
 private static final Map<Float, Element> *BY\_ATOMIC\_WEIGHT* = new HashMap<>();  
  
 static {  
 for (Element e : *values*()) { //for each loop  
 *BY\_LABEL*.put(e.label, e);  
 *BY\_ATOMIC\_NUMBER*.put(e.atomicNumber, e);  
 *BY\_ATOMIC\_WEIGHT*.put(e.atomicWeight, e);  
 }  
 }  
  
 public final String label;  
 public final int atomicNumber;  
 public final float atomicWeight;  
  
 Element(String label, int atomicNumber, float atomicWeight) {  
 this.label = label;  
 this.atomicNumber = atomicNumber;  
 this.atomicWeight = atomicWeight;  
 }  
  
 public static Element valueOfLabel(String label) {  
 return *BY\_LABEL*.get(label);  
 }  
  
 public static Element valueOfAtomicNumber(int number) {  
 return *BY\_ATOMIC\_NUMBER*.get(number);  
 }  
  
 public static Element valueOfAtomicWeight(float weight) {  
 return *BY\_ATOMIC\_WEIGHT*.get(weight);  
 }  
}  
  
public class Task016\_1 {  
 public static void main(String[] args) {  
  
 }  
}

//Task019: WAP to display the content of the above enum from the class  
// Task016\_1 in this program. (main needs to be added)  
  
public class Task019 {  
 public static void main(String[] args) {  
 Element H = Element.*valueOfAtomicNumber*(1);  
 Element He = Element.*valueOfLabel*("Helium");  
 System.*out*.println(H.atomicNumber);  
 System.*out*.println(He.label);  
 Element element = Element.*valueOfAtomicWeight*(20.180f);  
 System.*out*.println(element.label);  
 }  
}



//Task020: Create an array of your name.  
  
public class Task020 {  
 public static void main(String[] args) {  
 char[] name = {'k', 'u', 'n', 'a', 'l'};  
 System.*out*.println(name);  
 int nameLength = name.length;  
 System.*out*.println("There are "+nameLength+" letters in my name.");  
 for(int i = 0; i < nameLength; i++) {  
 System.*out*.print(name[i]+ " ");  
 }  
 }  
}

