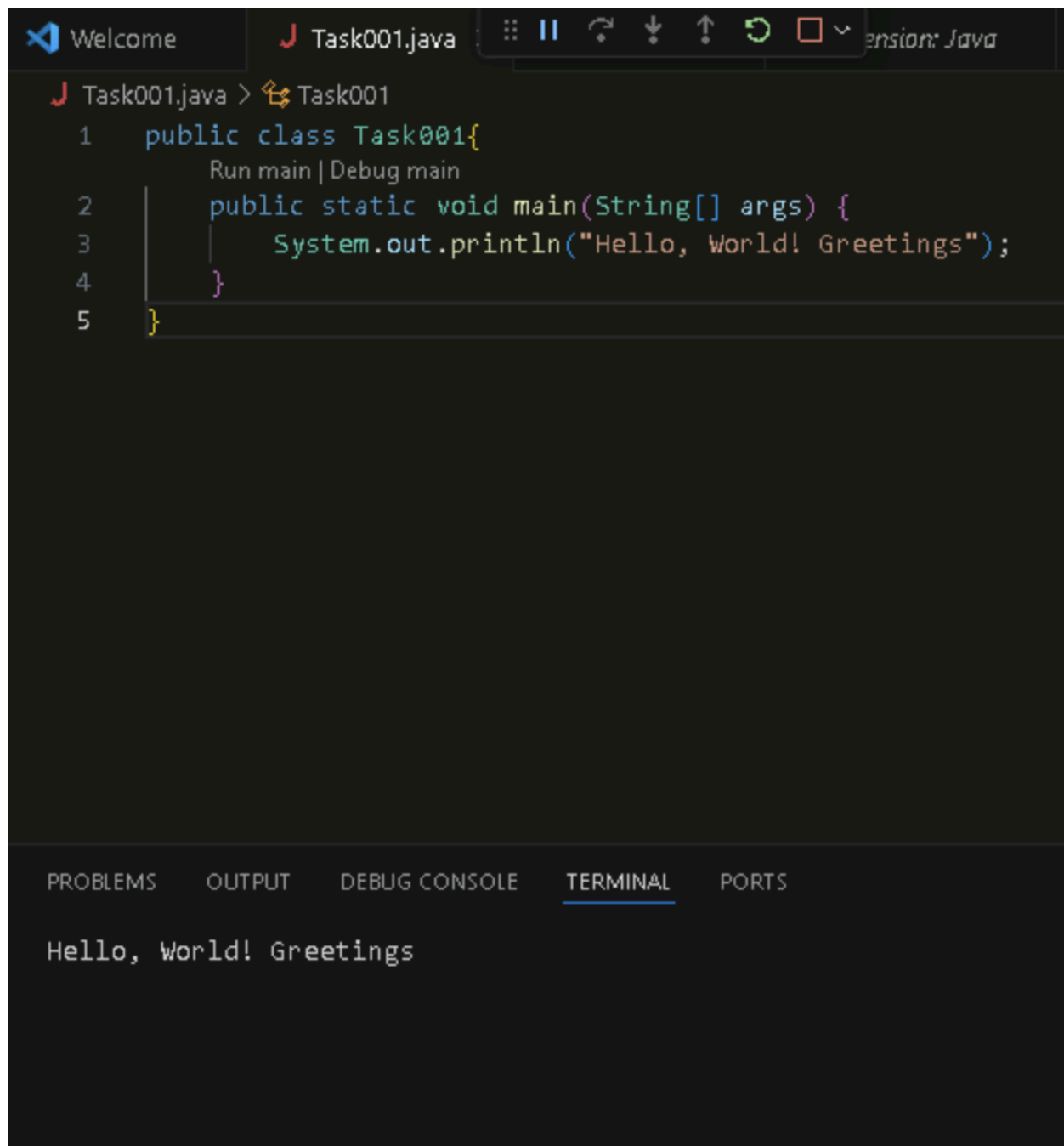


Task001 -



The screenshot shows a Java IDE with a dark theme. The top toolbar includes icons for Welcome, Task001.java, and various development actions like Run, Debug, and Test. The main editor displays the following Java code:

```
Task001.java > Task001
1 public class Task001{
    Run main | Debug main
2     public static void main(String[] args) {
3         System.out.println("Hello, World! Greetings");
4     }
5 }
```

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

```
Hello, World! Greetings
```

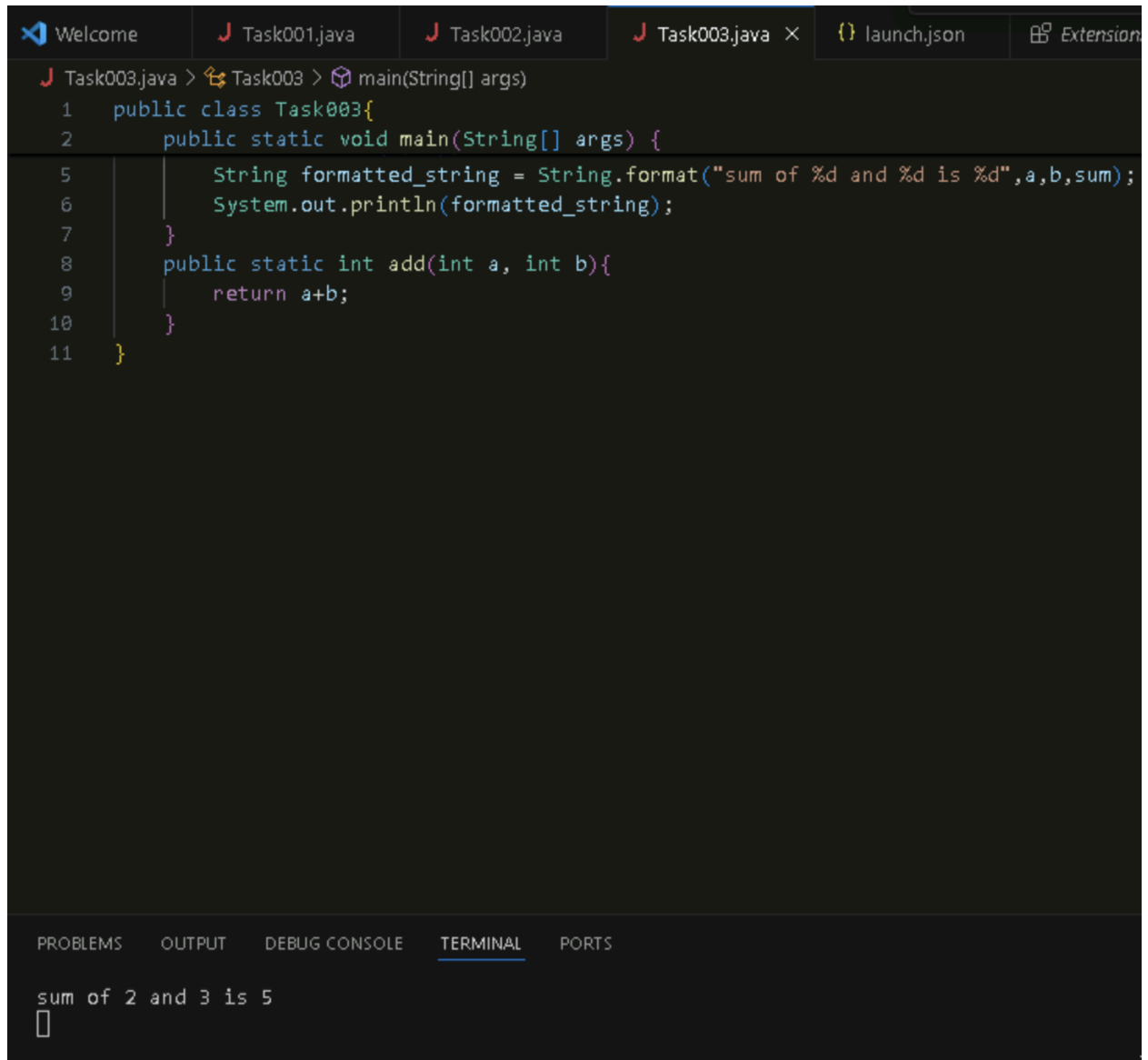
Task002 -

```
Task002.java > Task002 > main(String[] args)
1
2 public class Task002{
    Run main | Debug main
3     public static void main(String[] args) {
4         int a = 5,b=6;
5         int a1 = add(a, b);
6         int a2 = add(a1,a);
7         int a3 = add(b,a2);
8
9         System.out.println(a1+" "+a2+" "+a3);
10    }
11    public static int add(int a, int b){
12        return a+b;
13    }
14 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

11 16 22

Task003 -



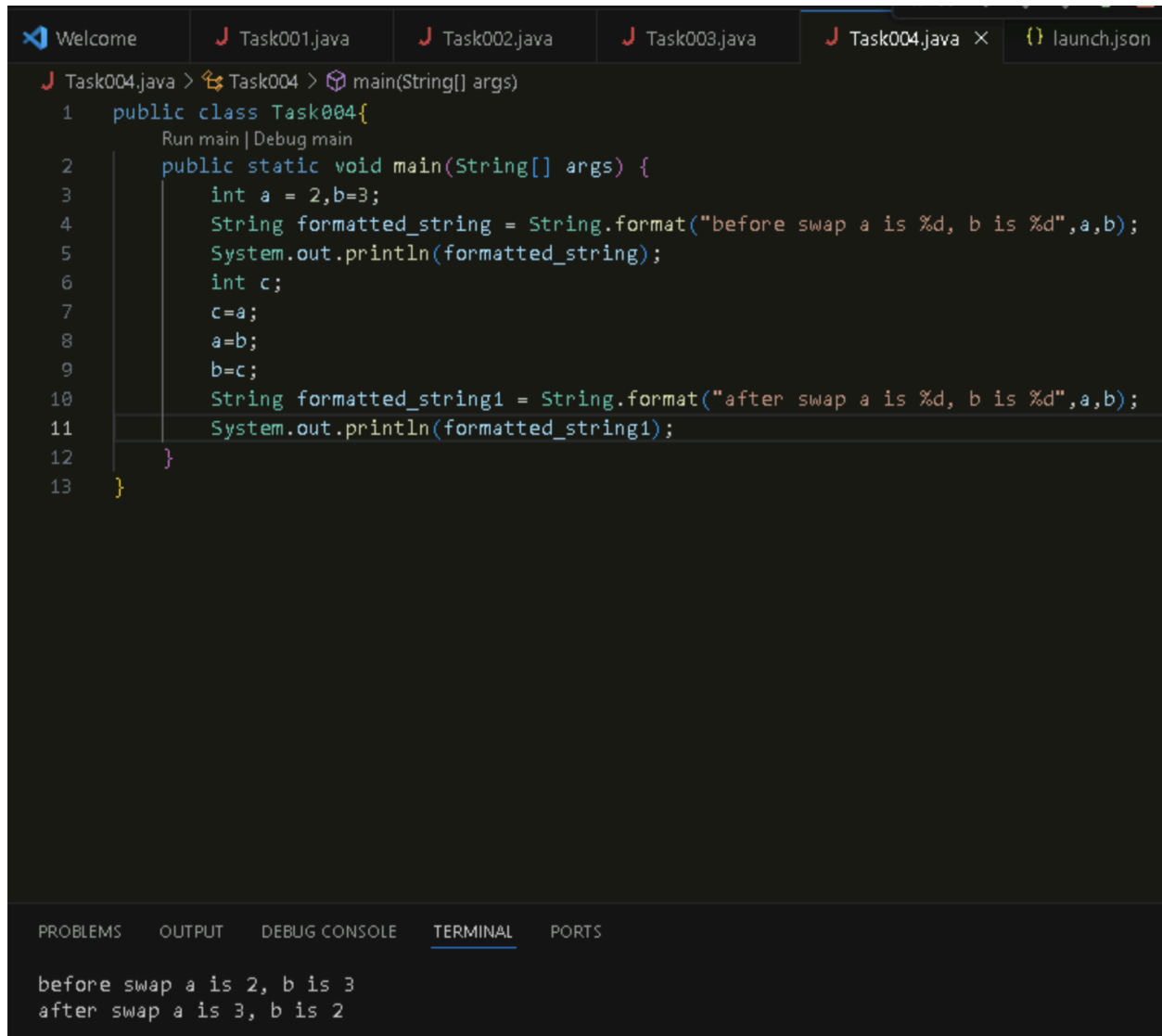
The screenshot shows a Java IDE with a dark theme. The top bar contains tabs for 'Welcome', 'Task001.java', 'Task002.java', 'Task003.java' (active), 'launch.json', and 'Extensions'. The main editor area displays the code for 'Task003.java'. The code defines a class 'Task003' with a 'main' method and an 'add' method. The 'main' method uses 'String.format' to print the sum of two numbers. The 'add' method returns the sum of two integers. The bottom panel shows the 'TERMINAL' tab with the output 'sum of 2 and 3 is 5' and a cursor on the next line.

```
Task003.java > Task003 > main(String[] args)
1  public class Task003{
2      public static void main(String[] args) {
3
4
5          String formatted_string = String.format("sum of %d and %d is %d",a,b,sum);
6          System.out.println(formatted_string);
7      }
8      public static int add(int a, int b){
9          return a+b;
10     }
11 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
sum of 2 and 3 is 5
█
```

Task004 -



The screenshot shows an IDE with a dark theme. At the top, there are tabs for 'Welcome', 'Task001.java', 'Task002.java', 'Task003.java', 'Task004.java', and 'launch.json'. The 'Task004.java' tab is active. Below the tabs, the code editor displays the following Java code:

```
Task004.java > Task004 > main(String[] args)
1  public class Task004{
    Run main | Debug main
2      public static void main(String[] args) {
3          int a = 2,b=3;
4          String formatted_string = String.format("before swap a is %d, b is %d",a,b);
5          System.out.println(formatted_string);
6          int c;
7          c=a;
8          a=b;
9          b=c;
10         String formatted_string1 = String.format("after swap a is %d, b is %d",a,b);
11         System.out.println(formatted_string1);
12     }
13 }
```

At the bottom of the IDE, there is a panel with tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', and 'PORTS'. The 'TERMINAL' tab is selected, and it shows the output of the program:

```
before swap a is 2, b is 3
after swap a is 3, b is 2
```

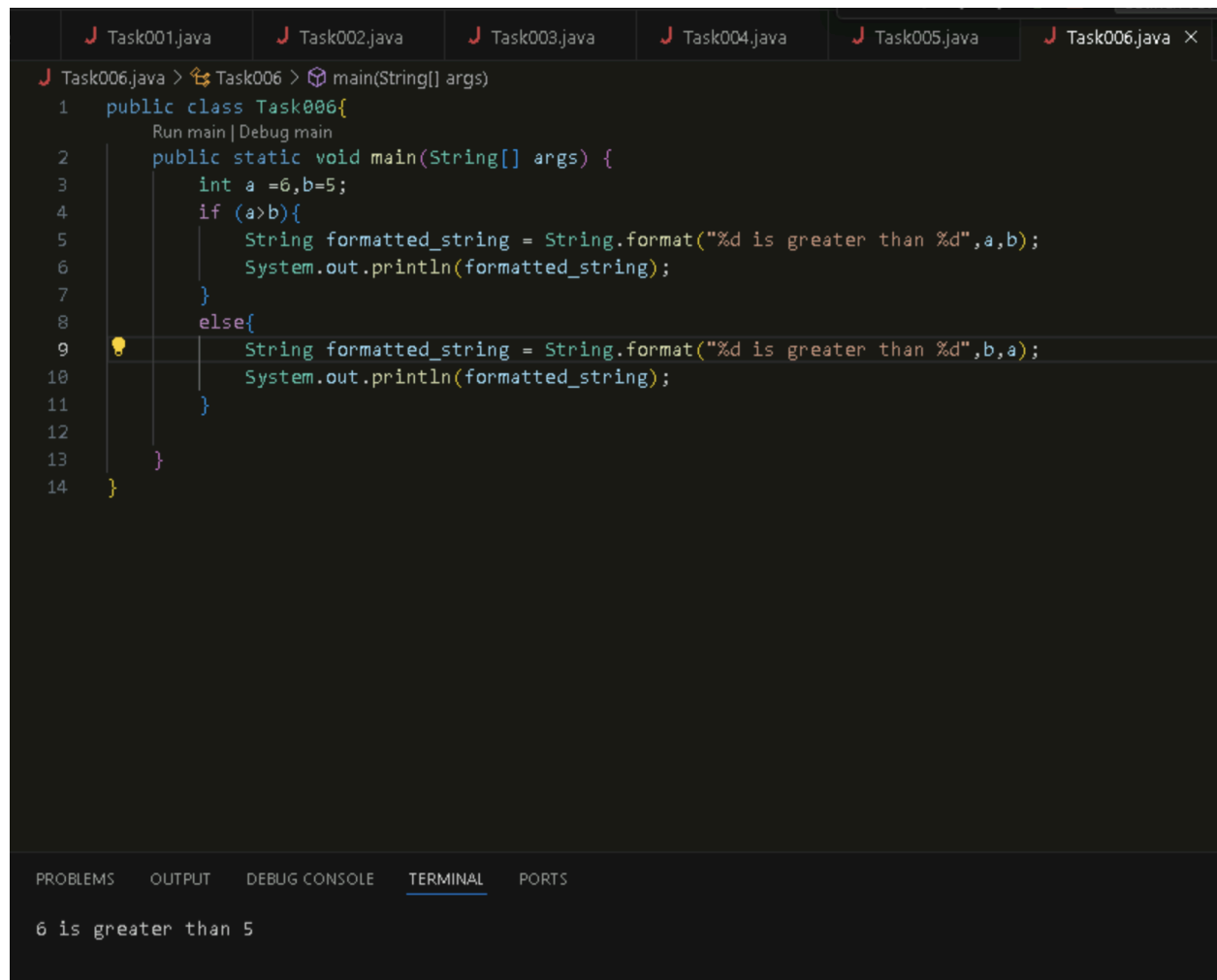
Task005 -

```
J Task005.java > Task005 > main(String[] args)
1 public class Task005{
    Run main | Debug main
2     public static void main(String[] args) {
3         int a = 4,b=2;
4         int sum,diff,prod,quotient;
5         sum = add(a, b);
6         diff = difference(a, b);
7         prod = multiply(a, b);
8         quotient = divide(a, b);
9         String formatted_string_sum = String.format("Sum of %d and %d is %d", a,b,sum);
10        String formatted_string_diff = String.format("difference of %d and %d is %d", a,b,diff);
11        String formatted_string_prod = String.format("product of %d and %d is %d", a,b,prod);
12        String formatted_string_quo = String.format("quotient of %d and %d is %d", a,b,quotient);
13
14        System.out.println(formatted_string_sum+"\n"+formatted_string_diff+"\n"+formatted_string_prod+"\n"+formatted_str
15    }
16    public static int add(int a, int b){
17        return a+b;
18    }
19    public static int difference(int a, int b){
20        return a-b;
21    }
22    public static int multiply(int a, int b){
23        return a*b;
24    }
25    public static int divide(int a, int b){
26        return a/b;
27    }
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Sum of 4 and 2 is 6
difference of 4 and 2 is 2
product of 4 and 2 is 8
quotient of 4 and 2 is 2
```

Task006 -

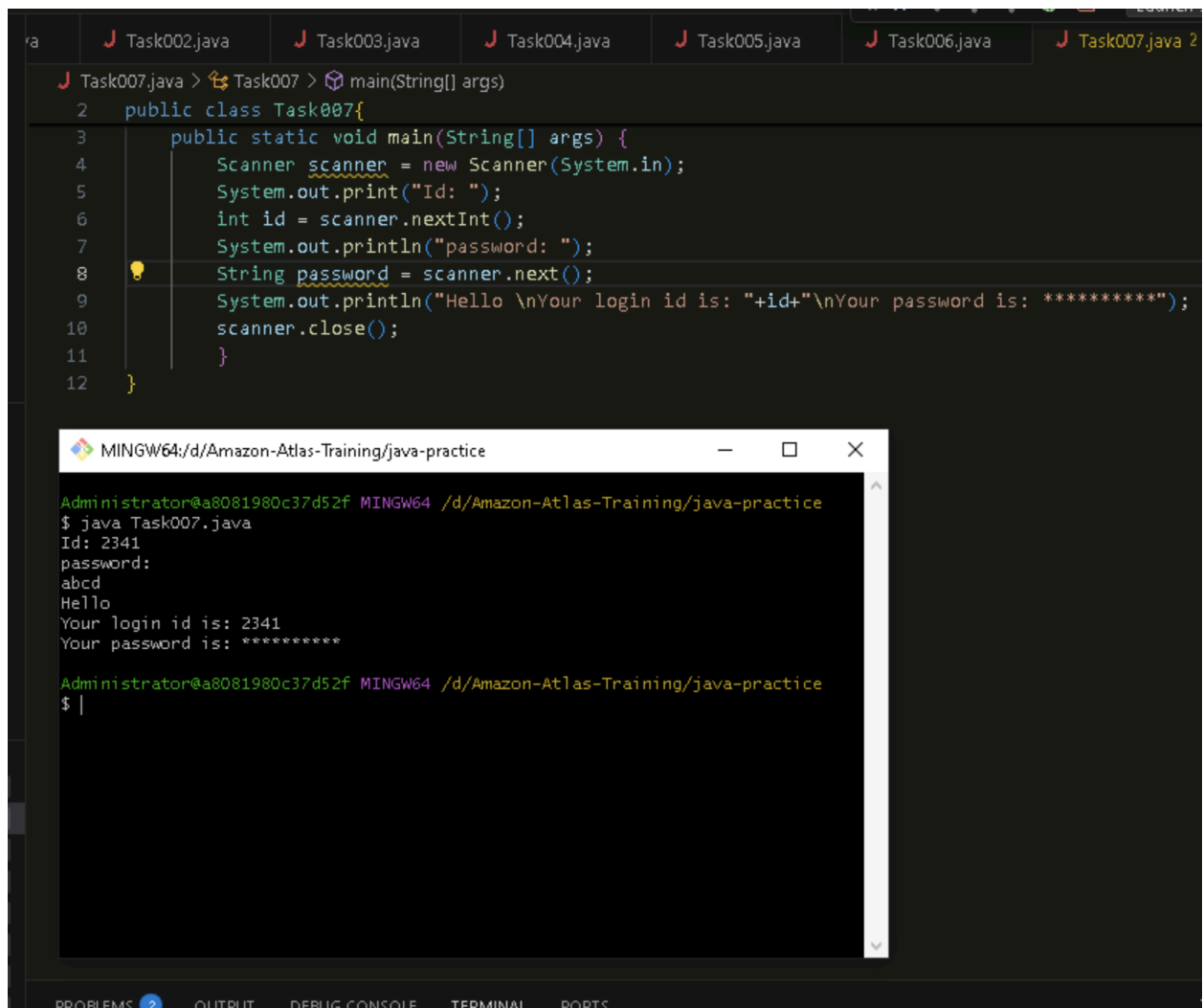


```
Task001.java Task002.java Task003.java Task004.java Task005.java Task006.java ×
Task006.java > Task006 > main(String[] args)
1 public class Task006{
    Run main | Debug main
2     public static void main(String[] args) {
3         int a =6,b=5;
4         if (a>b){
5             String formatted_string = String.format("%d is greater than %d",a,b);
6             System.out.println(formatted_string);
7         }
8         else{
9             String formatted_string = String.format("%d is greater than %d",b,a);
10            System.out.println(formatted_string);
11        }
12    }
13 }
14 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

6 is greater than 5

Task007



The image shows an IDE window with several tabs at the top: Task002.java, Task003.java, Task004.java, Task005.java, Task006.java, and Task007.java. The active tab is Task007.java, which contains the following Java code:

```
1 Task007.java > Task007 > main(String[] args)
2 public class Task007{
3     public static void main(String[] args) {
4         Scanner scanner = new Scanner(System.in);
5         System.out.print("Id: ");
6         int id = scanner.nextInt();
7         System.out.println("password: ");
8         String password = scanner.next();
9         System.out.println("Hello \nYour login id is: "+id+"\nYour password is: *****");
10        scanner.close();
11    }
12 }
```

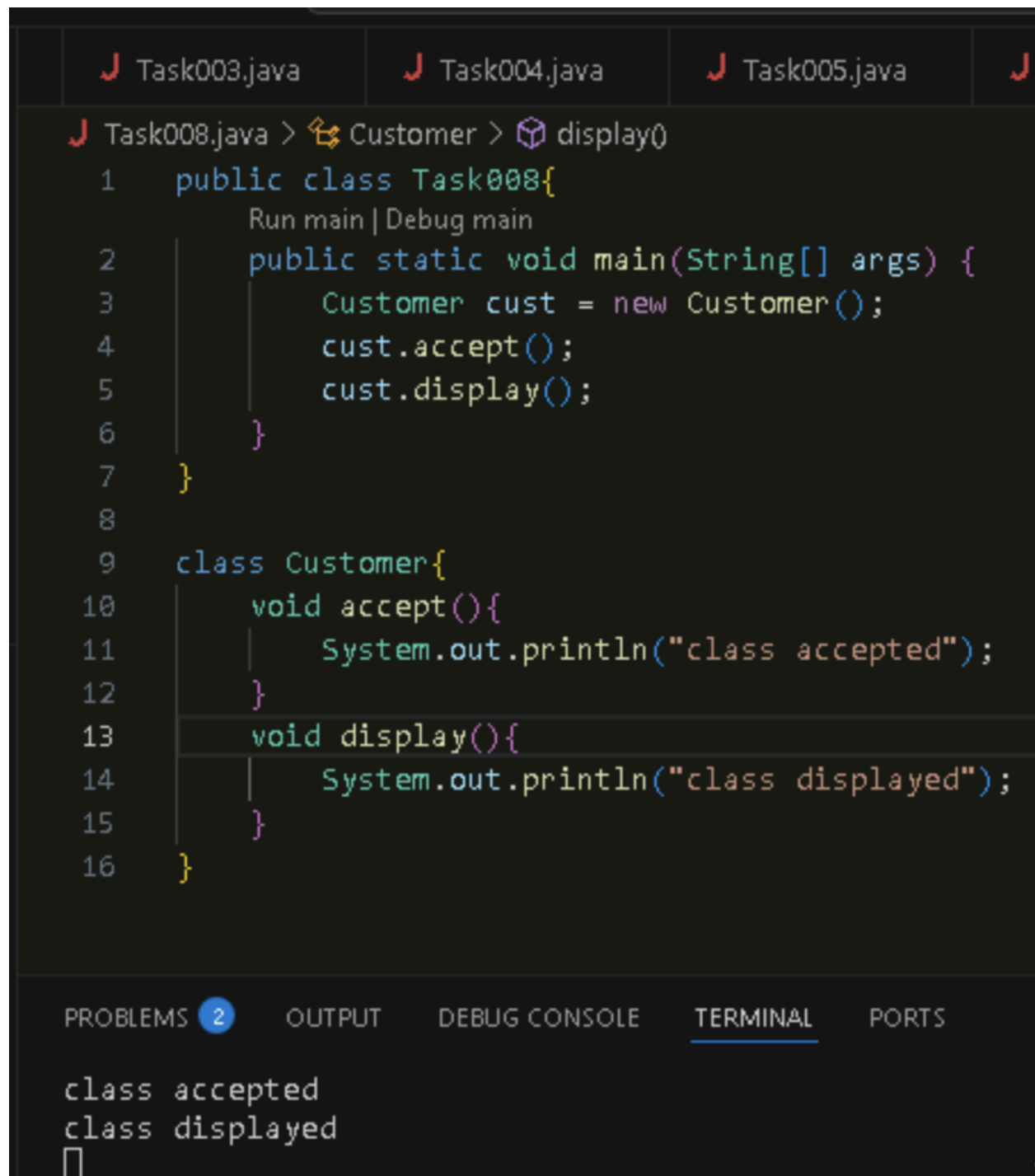
Below the code editor, a terminal window is open with the title "MINGW64:/d/Amazon-Atlas-Training/java-practice". It shows the execution of the program:

```
Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice
$ java Task007.java
Id: 2341
password:
abcd
Hello
Your login id is: 2341
Your password is: *****

Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice
$ |
```

The terminal output matches the logic of the Java code, showing the input values and the formatted output string.

Task8



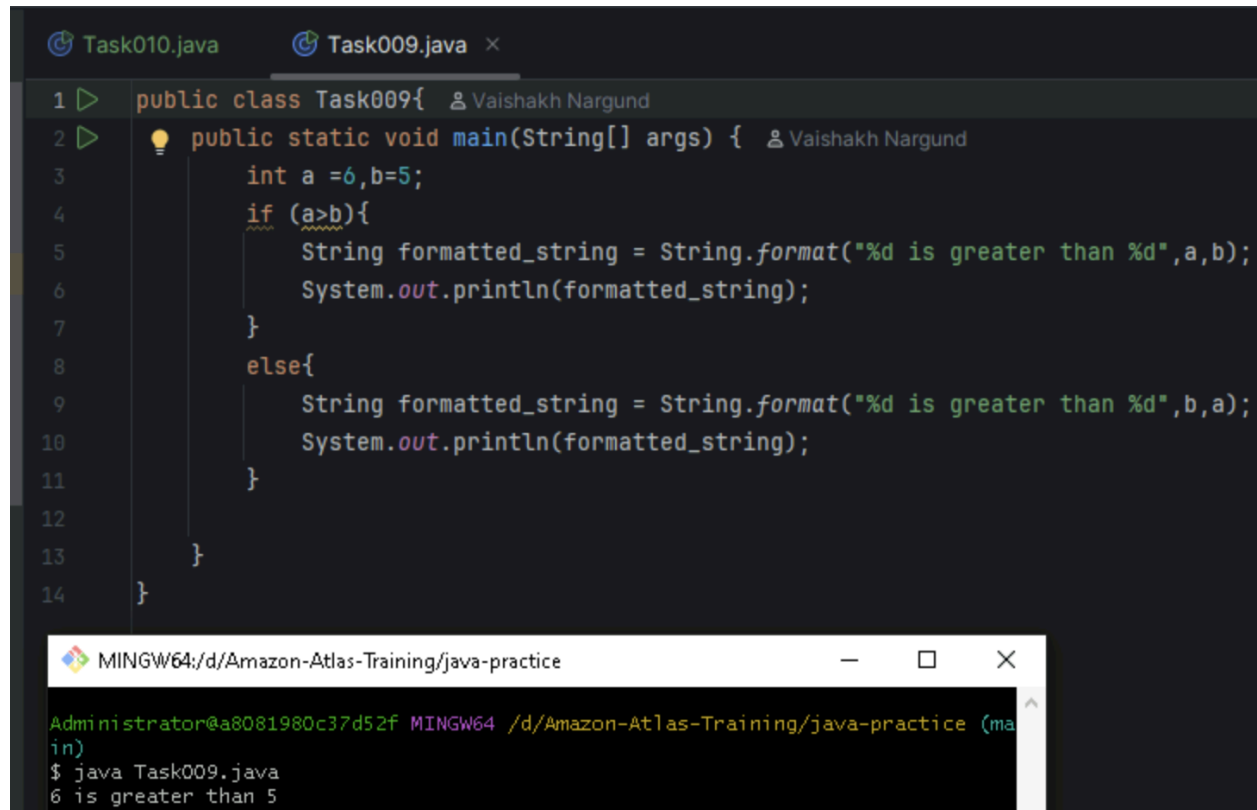
The screenshot shows an IDE with a tab bar at the top containing four files: Task003.java, Task004.java, Task005.java, and Task008.java. The Task008.java tab is active, showing the following code:

```
Task008.java > Customer > display0
1  public class Task008{
    Run main | Debug main
2      public static void main(String[] args) {
3          Customer cust = new Customer();
4          cust.accept();
5          cust.display();
6      }
7  }
8
9  class Customer{
10     void accept(){
11         System.out.println("class accepted");
12     }
13     void display(){
14         System.out.println("class displayed");
15     }
16 }
```

At the bottom of the IDE, the 'TERMINAL' tab is selected, showing the output of the program:

```
class accepted
class displayed
```


Task009 -



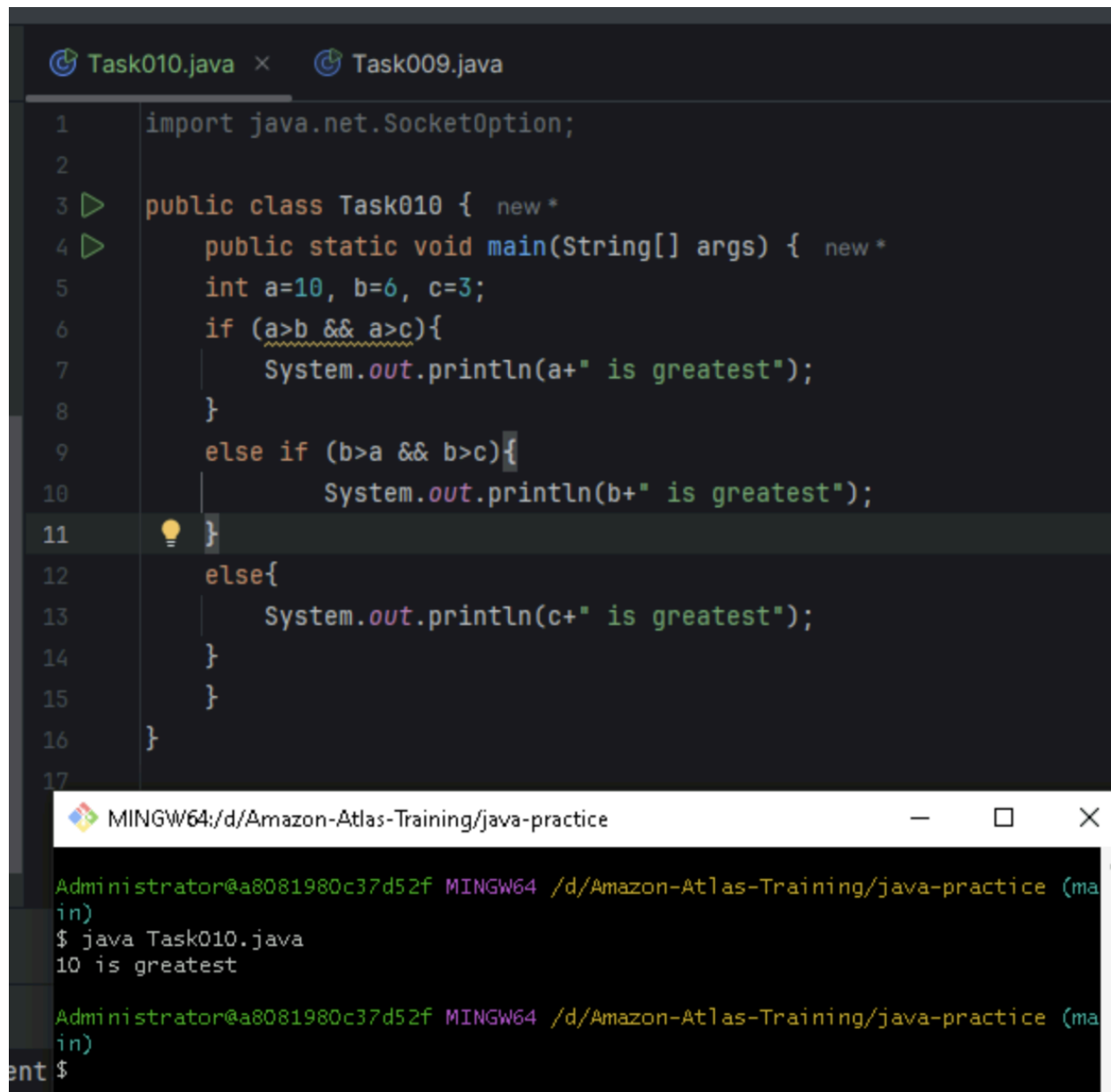
The image shows a screenshot of a code editor with two tabs: Task010.java and Task009.java. The Task009.java tab is active, displaying the following Java code:

```
1 public class Task009{ Vaishakh Nargund
2     public static void main(String[] args) { Vaishakh Nargund
3         int a =6,b=5;
4         if (a>b){
5             String formatted_string = String.format("%d is greater than %d",a,b);
6             System.out.println(formatted_string);
7         }
8         else{
9             String formatted_string = String.format("%d is greater than %d",b,a);
10            System.out.println(formatted_string);
11        }
12    }
13 }
14 }
```

Below the code editor, a terminal window is open with the title "MINGW64:/d/Amazon-Atlas-Training/java-practice". The terminal shows the command to run the program and its output:

```
Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice (main)
$ java Task009.java
6 is greater than 5
```

Task010 -



The image shows a screenshot of a code editor with two tabs: 'Task010.java' and 'Task009.java'. The 'Task010.java' tab is active, displaying a Java program that determines the greatest number among three variables: a, b, and c. The program uses a series of if-else statements to compare the values. Below the code editor, a terminal window is open, showing the command 'java Task010.java' being executed, which results in the output '10 is greatest'.

```
Task010.java × Task009.java
1 import java.net.SocketOption;
2
3 public class Task010 { new *
4     public static void main(String[] args) { new *
5         int a=10, b=6, c=3;
6         if (a>b && a>c){
7             System.out.println(a+" is greatest");
8         }
9         else if (b>a && b>c){
10             System.out.println(b+" is greatest");
11         }
12         else{
13             System.out.println(c+" is greatest");
14         }
15     }
16 }
17
```

MINGW64:/d/Amazon-Atlas-Training/java-practice

```
Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice (ma
in)
$ java Task010.java
10 is greatest

Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice (ma
in)
ent $
```

Task011 -

The screenshot displays an IDE with three main components: a Project Files pane on the left, a terminal window in the middle-left, and a code editor on the right.

Project Files: The tree shows a project named 'java-practice' located at 'D:\Amazon-Atlas-Training\java-practice'. It contains an '.idea' folder and several task files: Task006, Task007, Task008.java, Task009, Task010, Task011 (selected), and several test files (test-file-1.txt, test-file-2.txt, test-file-5.txt, test-file-6.txt, test-push.txt).

Terminal: The terminal shows the execution of 'Task011.java'. The user enters '2' for the day number, and the program outputs 'Day 2 is Monday'.

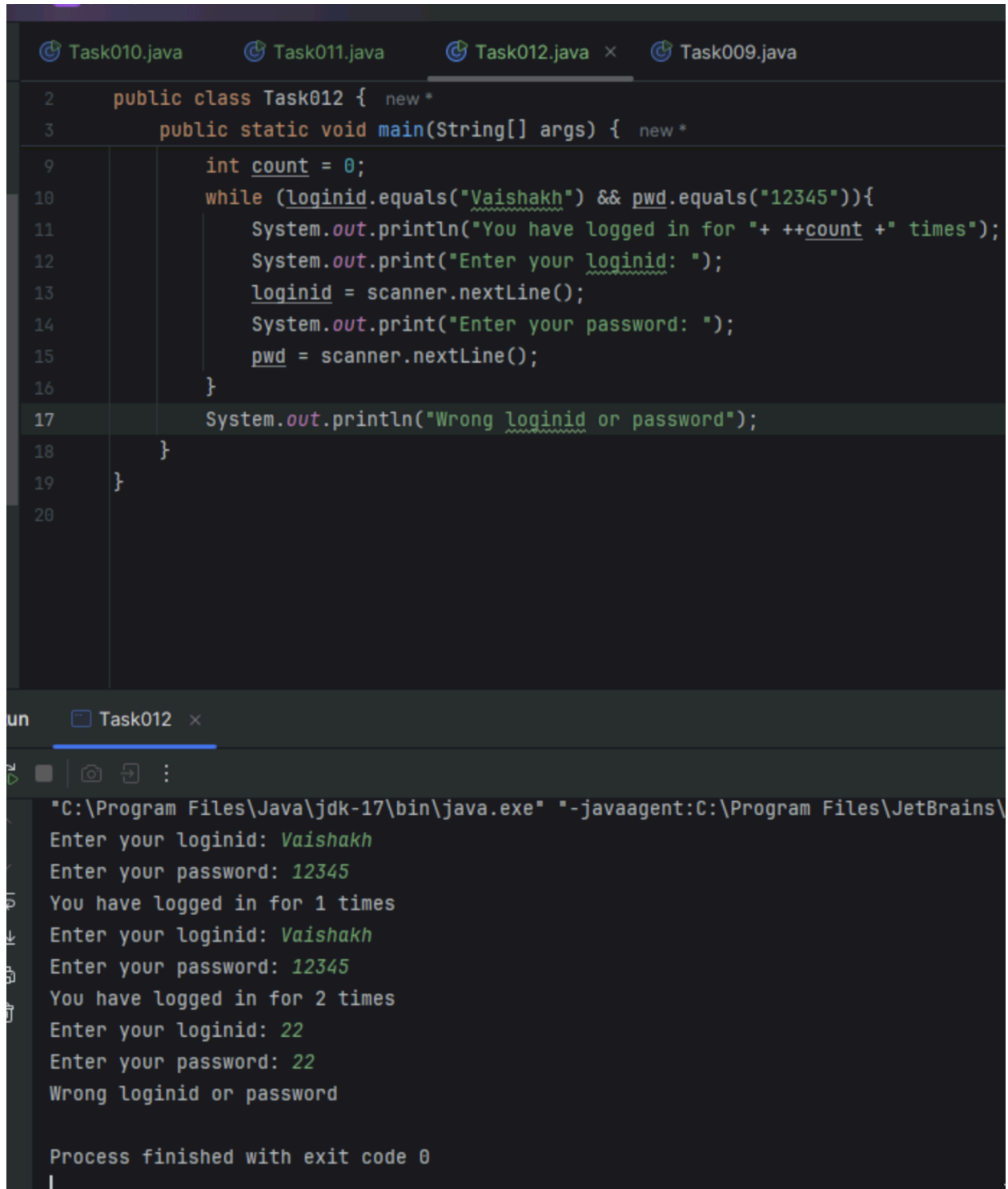
```
Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice (main)
$ java Task011.java
Enter day no.: 2
Day 2 is Monday

Administrator@a8081980c37d52f MINGW64 /d/Amazon-Atlas-Training/java-practice (main)
$
```

Code Editor: The editor shows the source code for 'Task011.java'. It imports 'java.util.Scanner', defines a 'Task011' class, and implements a 'main' method. The method uses a 'Scanner' to read an integer 'day' and a 'switch' statement to map the integer to a day name (Sunday through Saturday). If the input is not between 1 and 7, it outputs 'Invalid day'.

```
1 import java.util.Scanner;
2 public class Task011 {
3     public static void main(String[] args) {
4         Scanner scanner = new Scanner(System.in);
5         System.out.print("Enter day no.: ");
6         int day = scanner.nextInt();
7         String dayName;
8
9         switch (day) {
10             case 1:
11                 dayName = "Sunday";
12                 break;
13             case 2:
14                 dayName = "Monday";
15                 break;
16             case 3:
17                 dayName = "Tuesday";
18                 break;
19             case 4:
20                 dayName = "Wednesday";
21                 break;
22             case 5:
23                 dayName = "Thursday";
24                 break;
25             case 6:
26                 dayName = "Friday";
27                 break;
28             case 7:
29                 dayName = "Saturday";
30                 break;
31             default:
32                 dayName = "Invalid day";
33         }
34         System.out.println("Day " + day + " is " + dayName);
35     }
36 }
```

Task012 -



The screenshot displays an IDE with four tabs: Task010.java, Task011.java, Task012.java (active), and Task009.java. The code in Task012.java is as follows:

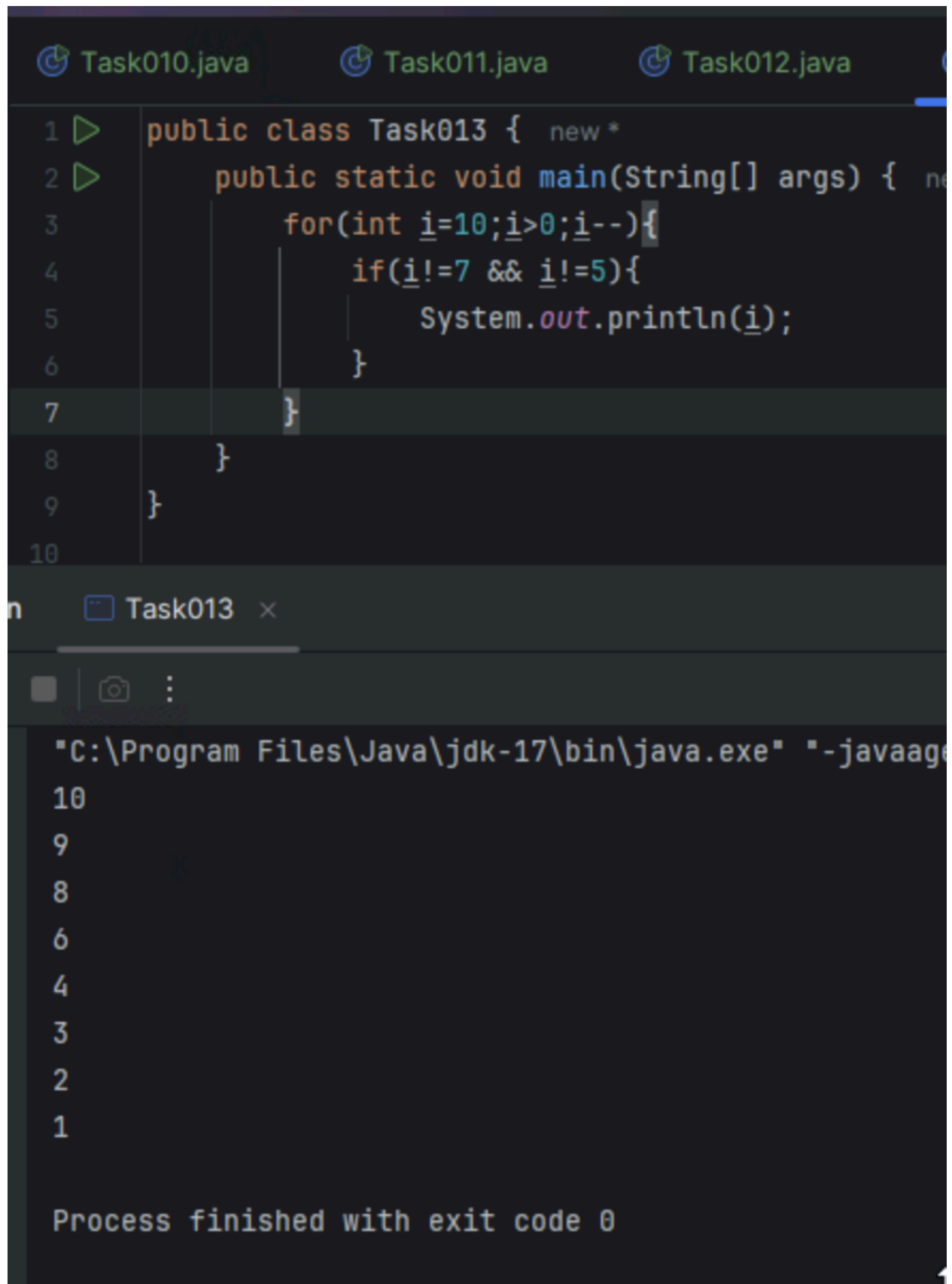
```
2 public class Task012 { new *
3     public static void main(String[] args) { new *
9         int count = 0;
10        while (loginid.equals("Vaishakh") && pwd.equals("12345")){
11            System.out.println("You have logged in for "+ ++count + " times");
12            System.out.print("Enter your loginid: ");
13            loginid = scanner.nextLine();
14            System.out.print("Enter your password: ");
15            pwd = scanner.nextLine();
16        }
17        System.out.println("Wrong loginid or password");
18    }
19 }
20
```

Below the code editor, the 'Run' button is visible, and the output console shows the execution results:

```
un Task012 x
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\
Enter your loginid: Vaishakh
Enter your password: 12345
You have logged in for 1 times
Enter your loginid: Vaishakh
Enter your password: 12345
You have logged in for 2 times
Enter your loginid: 22
Enter your password: 22
Wrong loginid or password

Process finished with exit code 0
```

Task013 -



The screenshot shows an IDE with three tabs: Task010.java, Task011.java, and Task012.java. The active tab is Task013.java, which contains the following Java code:

```
1 public class Task013 {  
2     public static void main(String[] args) {  
3         for(int i=10;i>0;i--){  
4             if(i!=7 && i!=5){  
5                 System.out.println(i);  
6             }  
7         }  
8     }  
9 }  
10
```

Below the code editor, there is a terminal window titled "Task013" showing the execution of the program. The command executed is:

```
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent"
```

The output of the program is a list of numbers from 10 down to 1, excluding 7 and 5:

```
10  
9  
8  
6  
4  
3  
2  
1
```

At the bottom of the terminal, it states: "Process finished with exit code 0".

Task014 -

```
Task010.java Task011.java Task012.java Task013.java Task014.java x Task009.java

1 public class Task014 { new *
2     public static void main(String[] args) { new *
3         char[] vowels = {'a','e','i','o','u'};
4         System.out.println(vowels);
5         String[] names = {"Vaishakh","Mani","Meher","Jeff"};
6         System.out.println(names[1]);
7         names[2]="Prasunamba";
8         System.out.println(names[-1]);
9         //Java doesn't support negative indexing on arrays, hence error
10        System.out.println(names.length);
11    }
12 }
```

Task014 x

```
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025
aeiou
Mani
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index -1 out of bounds for length 4
    at Task014.main(Task014.java:8)

Process finished with exit code 1
```

Task015 -

Task010.javaTask011.javaTask012.javaTask013.javaTask015.java

1 public class Task015 { new *

2 public static void main(String[] args) { new *

3 String str1 = "str1 string";

4 String str2 = new String(str1);

5 String str3 = new String(original: "this is str3");

6 char[] ch = {'a','b','c','d'};

7 String str4 = new String(ch);

8 System.out.println(str1+"\n"+str2+"\n"+str3+"\n"+str4);

9 }

10 }

Task015

▢

×

■

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⋮

"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files

str1 string

str1 string

this is str3

abcd

Task016 -

```
Task010.java Task011.java Task012.java

1  enum color{ 2 usages new *
2      red,blue,yellow,green no usages
3  }
4
5  enum month{ 2 usages new *
6      jan,feb,march,apr no usages
7  }
8
9  ▶ public class Task016 { new *
10 ▶     public static void main(String[] args) {
11         color c1 = color.yellow;|
12         System.out.println(c1);
13         month m1 = month.march;
14         System.out.println(m1);
15     }
16 }
17

Task016 x

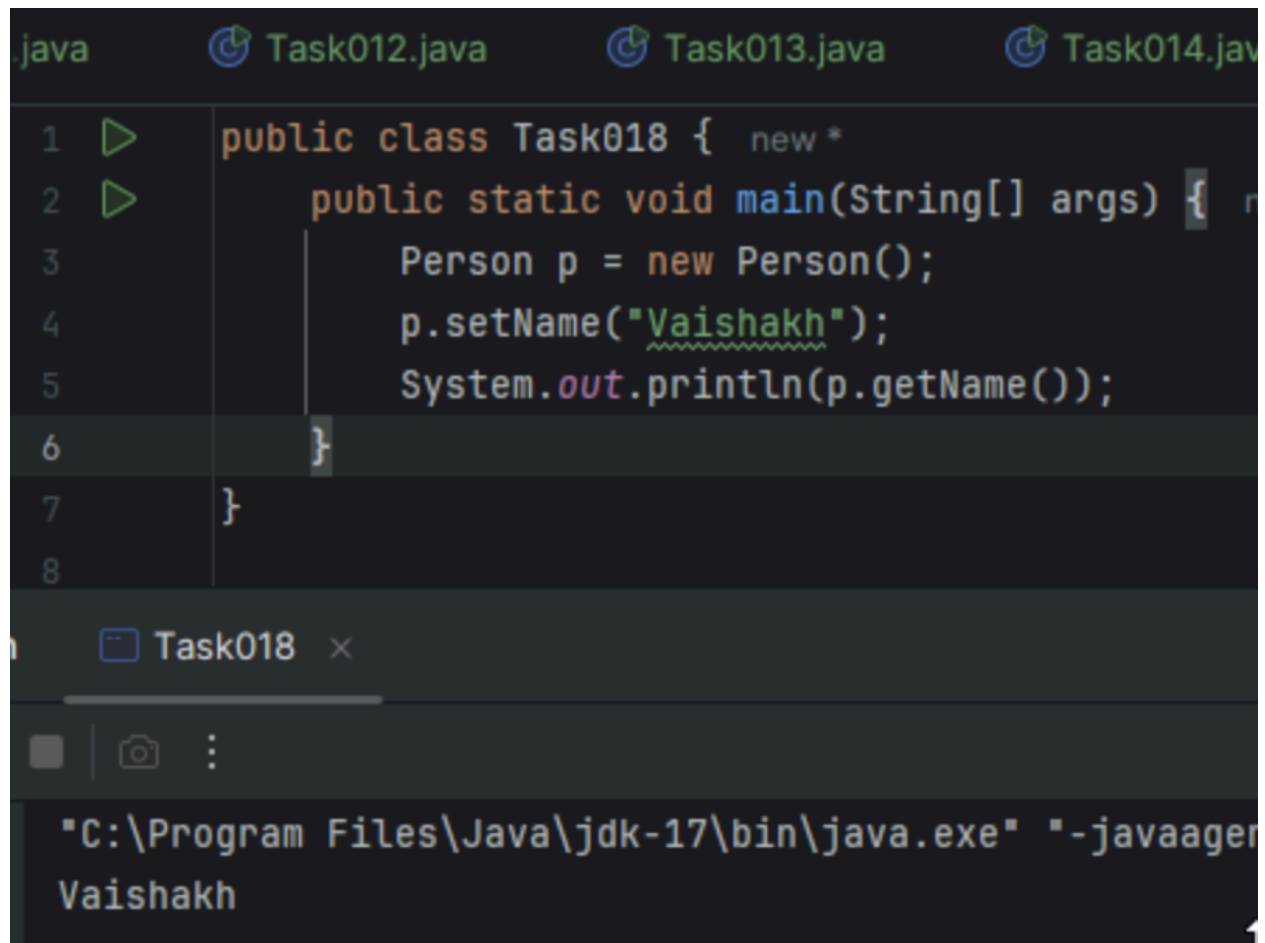
[C] [C] [C]
" C:\Program Files\Java\jdk-17\bin\java.exe" "-javaa
yellow
march

Process finished with exit code 0
```

Task017 -

The "name has private access in Person" error in Java (or similar languages) indicates that you are trying to access a field named "name" within the Person class, but that field is declared as private. Private fields can only be accessed from within the same class where they are defined. This error occurs when you try to access the private field from outside of the Person class.

Task018 -



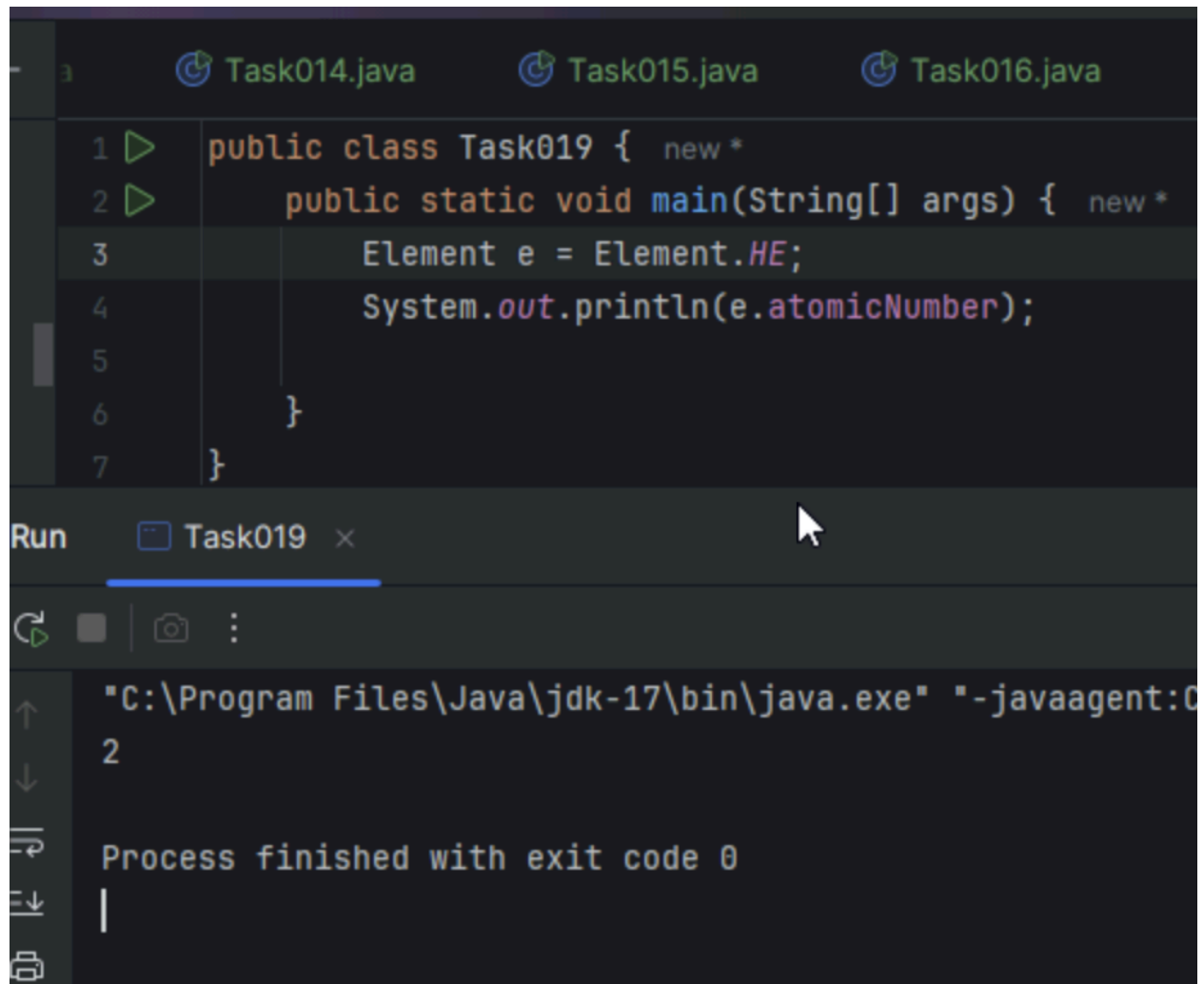
The screenshot shows an IDE with a dark theme. At the top, there are tabs for 'Task012.java', 'Task013.java', and 'Task014.java'. The active tab is 'Task018.java'. The code in the editor is as follows:

```
1  public class Task018 {  
2      public static void main(String[] args) {  
3          Person p = new Person();  
4          p.setName("Vaishakh");  
5          System.out.println(p.getName());  
6      }  
7  }  
8
```

Below the code editor, there is a tab labeled 'Task018' with a close button. Underneath that, there is a toolbar with a camera icon and a vertical ellipsis. At the bottom, there is a console window showing the command and output:

```
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent  
Vaishakh
```


Task019 -



The screenshot shows an IDE with three tabs: Task014.java, Task015.java, and Task016.java. The active tab is Task019.java, which contains the following code:

```
1 public class Task019 { new *
2     public static void main(String[] args) { new *
3         Element e = Element.HE;
4         System.out.println(e.atomicNumber);
5     }
6 }
7 }
```

Below the code editor is a Run window titled "Run Task019". The output shows the command executed and the result:

```
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:0
2
Process finished with exit code 0
|
```

Task020 -

```
1 import java.util.Scanner;
2
3 public class Task020 { new *
4     public static void main(String[] args) { new *
5         System.out.print("Enter your name: ");
6         Scanner scanner = new Scanner(System.in);
7         char[] name = scanner.nextLine().toCharArray();
8         System.out.println("Hello "+new String(name)+"!");
9         int n = name.length;
10        System.out.println("There are "+n+" letters in your name");
11        System.out.println("Displaying all letters in your name");
12        for (int i =0;i<n;i++){
13            System.out.println(name[i]);
14        }
15    }
16 }
```

Task020 x

"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\...

Enter your name: vaishakh

Hello vaishakh!

There are 8 letters in your name

Displaying all letters in your name

v

a

i

s

h

a

k

h