

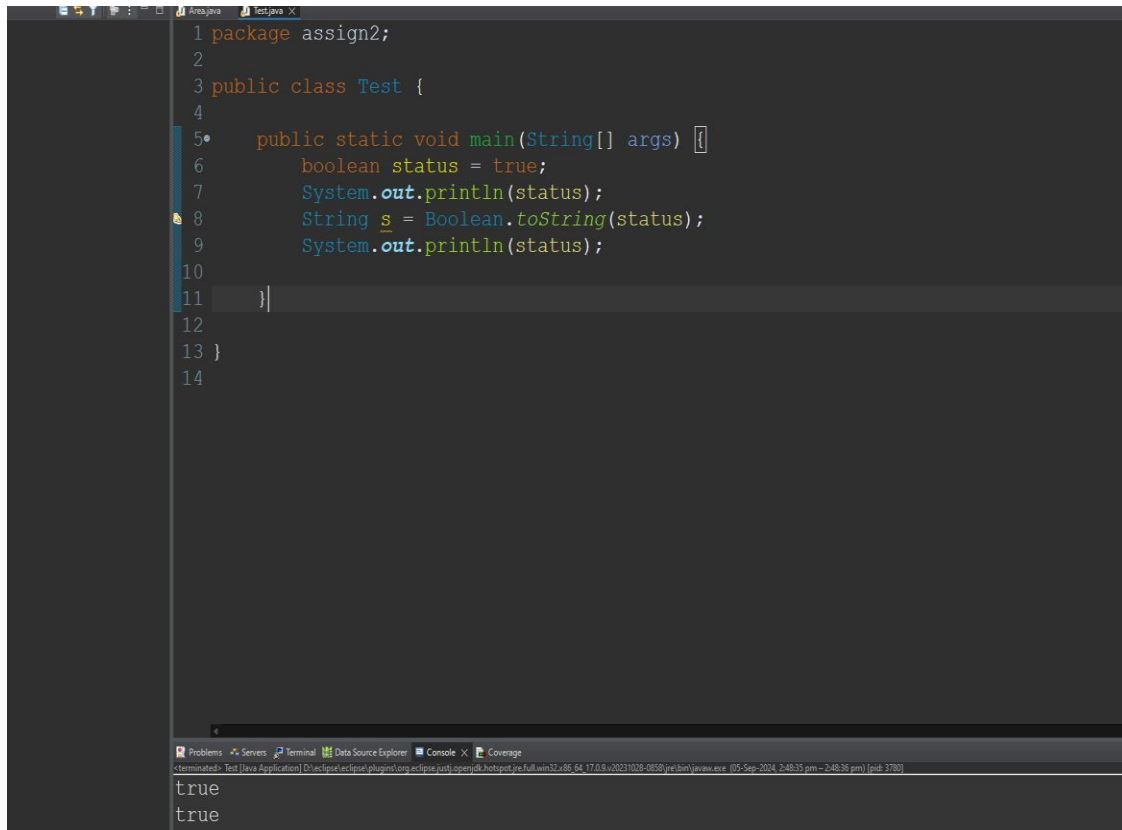
Q1] Working with java.lang.Boolean

- a) Explore the Java API documentation for java.lang.Boolean and observe its modifiers and super types.

⇒ boolean → booleanValue()
 static Boolean → valueOf(boolean b)

- b) Declare a method-local variable status of type boolean with the value true and convert it to a String using the toString method. (Hint: Use Boolean.toString(Boolean))

⇒



The screenshot shows an IDE with a Java file named 'Test.java' in the package 'assign2'. The code defines a public class 'Test' with a main method. Inside the main method, a boolean variable 'status' is initialized to 'true'. It is then printed using 'System.out.println(status)'. A String variable 's' is assigned the value of 'Boolean.toString(status)', and this string is also printed. The output window at the bottom shows the results of the two print statements: 'true' and 'true'.

```
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         boolean status = true;
7         System.out.println(status);
8         String s = Boolean.toString(status);
9         System.out.println(status);
10
11     }
12
13 }
14
```

true
true

- c) Declare a method-local variable strStatus of type String with the value “true” and convert it to a Boolean using the parseBoolean method (Hint: Use Boolean.parseBoolean (String)).

⇒

```
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         String strStatus = "true";
7         System.out.println(strStatus);
8         boolean b = Boolean.parseBoolean(strStatus);
9         System.out.println(b);
10
11     }
12 }
13
14
```

Console Output:

```
<terminated> Test (Java Application) D:\eclipse\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.9.v20231028-0858\jre\bin\javaw.exe (05-Sep-2024, 2:56:17 pm - 2:56:18 pm) [pid: 17976]
true
true
```

d) Declare a method-local variable strStatus of type String with the value “1” or “0” and attempt to convert it to a boolean.

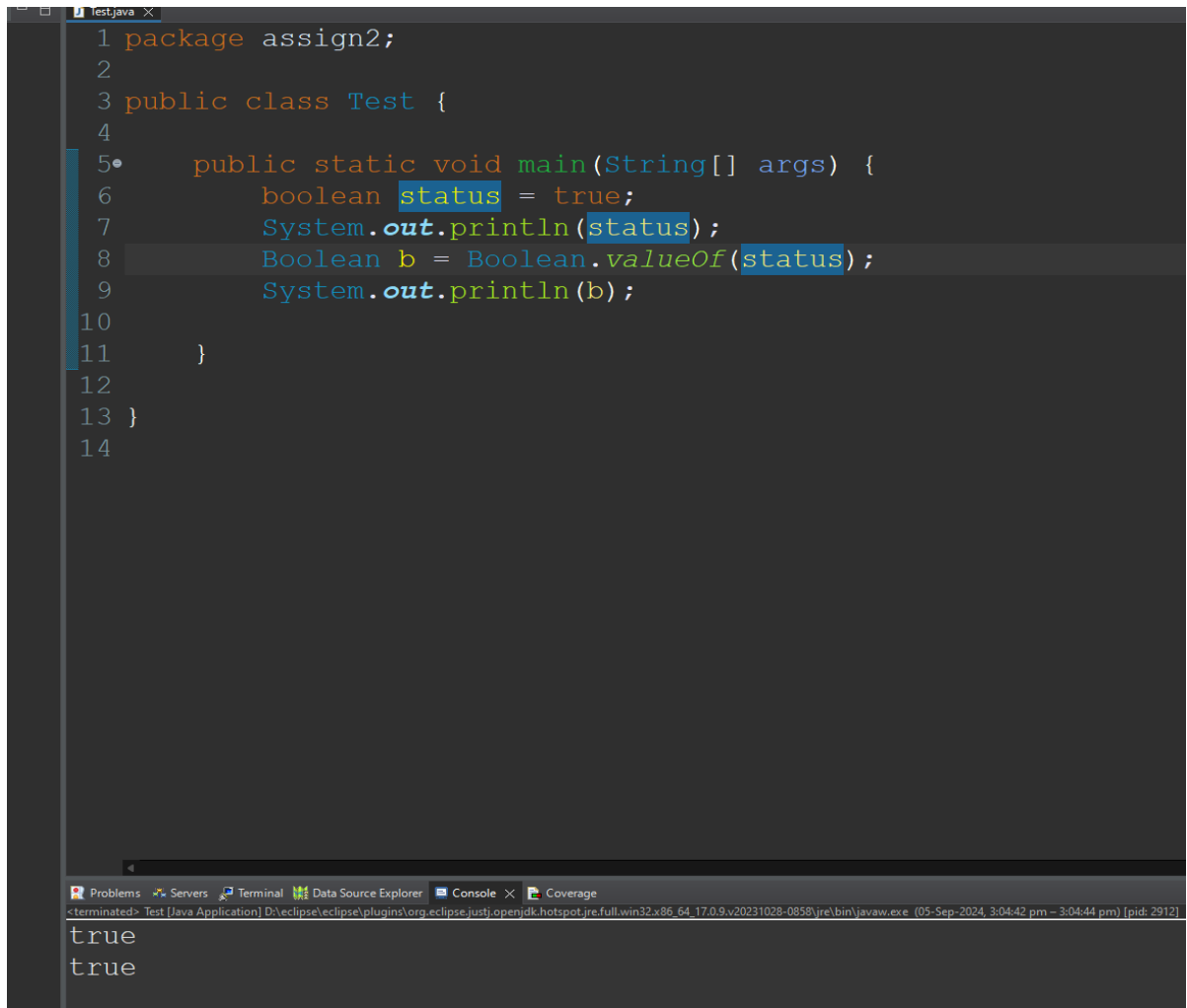
⇒

```
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         String strStatus = "0";
7         System.out.println(strStatus);
8         boolean b = Boolean.parseBoolean(strStatus);
9         System.out.println(b);
10
11     }
12 }
13
14
```

Console Output:

```
<terminated> Test (Java Application) D:\eclipse\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.9.v20231028-0858\jre\bin\javaw.exe (05-Sep-2024, 3:01:31 pm - 3:01:32 pm) [pid: 4652]
0
false
```

e) Declare a method-local variable status of type boolean with the value true and convert it to the corresponding wrapper class using Boolean.valueOf(). (Hint: Use Boolean.valueOf(boolean)).



```
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         boolean status = true;
7         System.out.println(status);
8         Boolean b = Boolean.valueOf(status);
9         System.out.println(b);
10
11     }
12
13 }
14
```

true
true

f) Declare a method-local variable strStatus of type String with the value “true” and convert it to the corresponding wrapper class using Boolean.valueOf(). (Hint: Use Boolean.valueOf(String)).



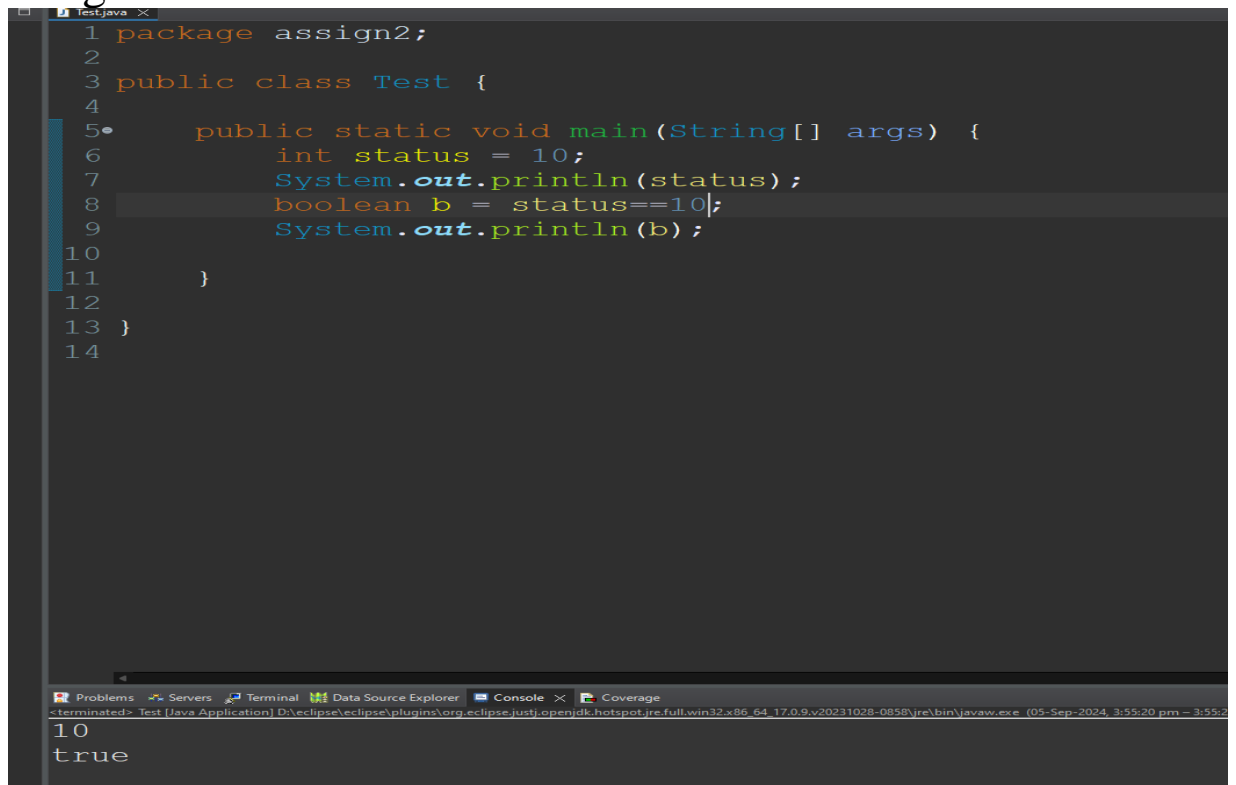
```
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         String strStatus = "true";
7         System.out.println(strStatus);
8         Boolean b = Boolean.valueOf(strStatus);
9         System.out.println(b);
10
11     }
12 }
13
14
```

true
true

g) Experiment with converting a boolean value into other primitive types or vice versa and observe the results.



Integer converted to boolean



The screenshot shows the Eclipse IDE with a Java file named 'Test.java'. The code defines a package 'assign2' and a public class 'Test'. Inside the class, there is a 'main' method that takes a 'String[] args' parameter. In the 'main' method, an integer variable 'status' is assigned the value 10. It then prints 'status' using 'System.out.println(status);'. Next, a boolean variable 'b' is assigned the value of 'status == 10', and it prints 'b' using 'System.out.println(b);'. The IDE's console at the bottom shows the output of the program: '10' followed by 'true' on the next line. The console also shows the command used to run the application: 'Test [Java Application] D:\eclipse\eclipse\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.9.v20231028-0850\jre\bin\javaw.exe. (05-Sep-2024, 3:55:20 pm - 3:55:20 pm)'.

```
1 package assign2;
2
3 public class Test {
4
5     public static void main(String[] args) {
6         int status = 10;
7         System.out.println(status);
8         boolean b = status==10;
9         System.out.println(b);
10    }
11 }
12
13 }
14
```

10
true