

JAVA PROGRAMMING COURSE

EXERCISE

AUTOBOXING / AUTOUNBOXING IN JAVA

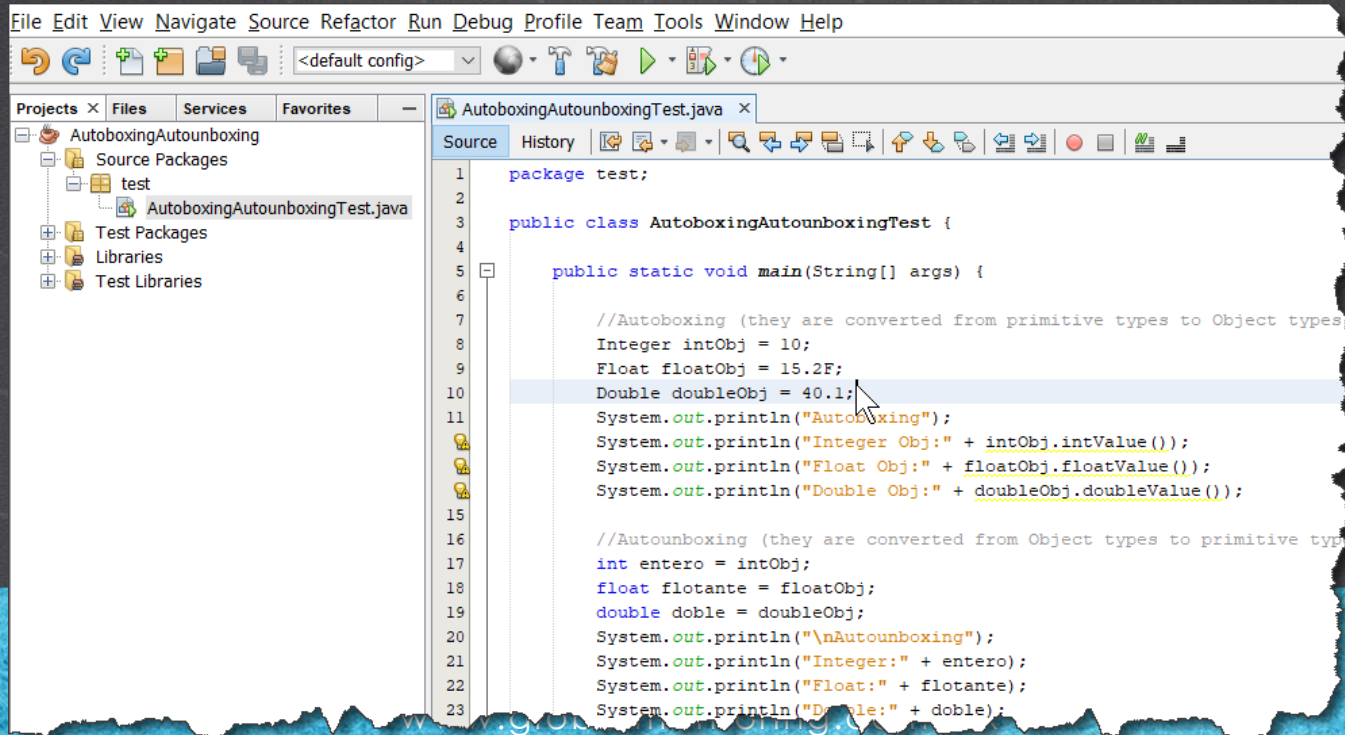


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EXERCISE OBJECTIVE

Create the Autoboxing /autounboxing exercise. At the end we should observe the following:



```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
<default config>
AutoboxingAutounboxingTest.java x
Source History
1 package test;
2
3 public class AutoboxingAutounboxingTest {
4
5     public static void main(String[] args) {
6
7         //Autoboxing (they are converted from primitive types to Object types)
8         Integer intObj = 10;
9         Float floatObj = 15.2F;
10        Double doubleObj = 40.1;
11        System.out.println("Autoboxing");
12        System.out.println("Integer Obj:" + intObj.intValue());
13        System.out.println("Float Obj:" + floatObj.floatValue());
14        System.out.println("Double Obj:" + doubleObj.doubleValue());
15
16        //Autounboxing (they are converted from Object types to primitive types)
17        int entero = intObj;
18        float flotante = floatObj;
19        double doble = doubleObj;
20        System.out.println("\nAutounboxing");
21        System.out.println("Integer:" + entero);
22        System.out.println("Float:" + flotante);
23        System.out.println("Double:" + doble);
24    }
25 }
```


1. CREATE A NEW PROJECT

Create a new project:

New Java Application

Steps

1. Choose Project
2. **Name and Location**

Name and Location

Project Name: AutoboxingAutounboxing

Project Location: C:\Courses\JavaProgramming\Lesson07 Browse...

Project Folder: C:\Courses\JavaProgramming\Lesson07\AutoboxingAutounboxing

☐ Use Dedicated Folder for Storing Libraries

Libraries Folder: Browse...

Different users and projects can share the same compilation libraries (see Help for details).

☐ Create Main Class autoboxingautounboxing.AutoboxingAutounboxing

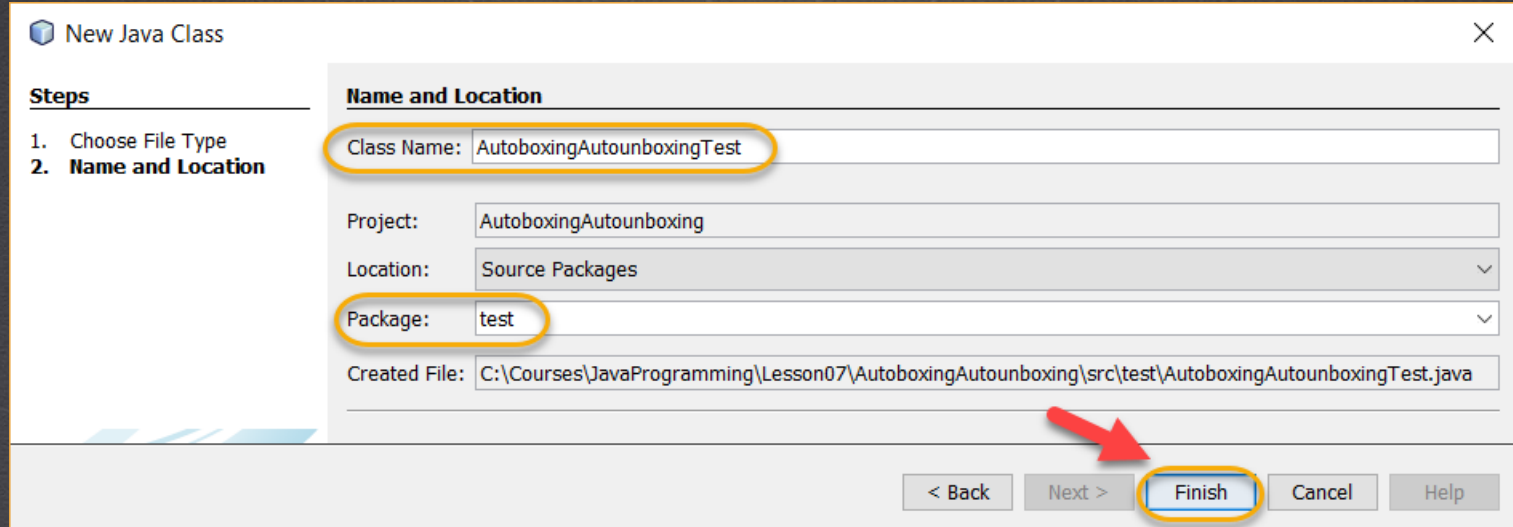
< Back Next > **Finish** Cancel Help

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2. CREATE A NEW CLASS

Create a new Class:



New Java Class

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

Class Name:

Project:

Location:

Package:

Created File:

< Back Next > **Finish** Cancel Help

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3. MODIFY THE CODE

AutoboxingAutounboxing.java:

```
package test;

public class AutoboxingAutounboxingTest {

    public static void main(String[] args) {

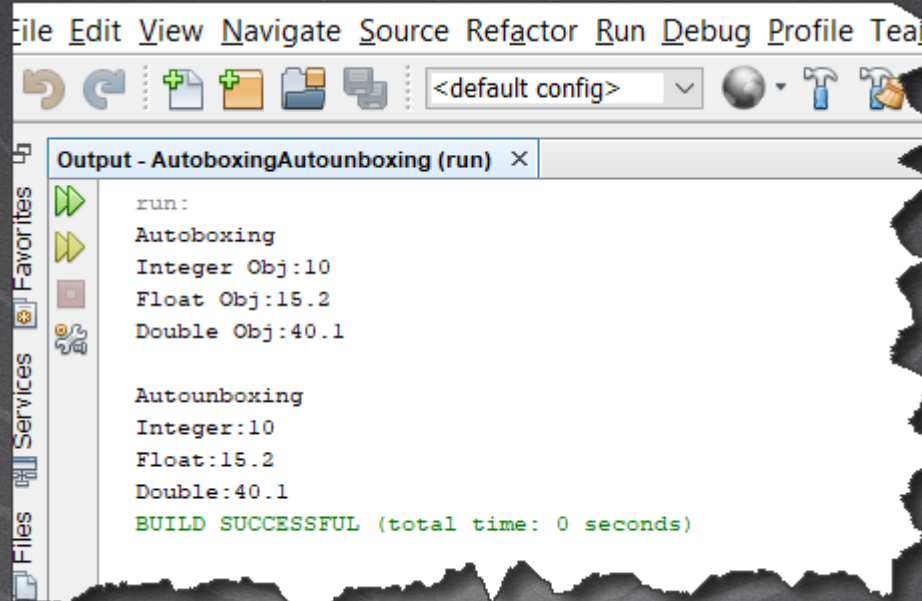
        //Autoboxing (they are converted from primitive types to Object types)
        Integer intObj = 10;
        Float floatObj = 15.2F;
        Double doubleObj = 40.1;
        System.out.println("Autoboxing");
        System.out.println("Integer Obj:" + intObj.intValue());
        System.out.println("Float Obj:" + floatObj.floatValue());
        System.out.println("Double Obj:" + doubleObj.doubleValue());

        //Autounboxing (they are converted from Object types to primitive types)
        int entero = intObj;
        float flotante = floatObj;
        double doble = doubleObj;
        System.out.println("\nAutounboxing");
        System.out.println("Integer:" + entero);
        System.out.println("Float:" + flotante);
        System.out.println("Double:" + doble);

    }
}
```


3. EXECUTE THE PROJECT

The result is as follows:

A screenshot of an IDE's output window. The window title is "Output - AutoboxingAutounboxing (run)". The output text shows the execution of a program with two sections: "Autoboxing" and "Autounboxing". Each section displays the values of Integer, Float, and Double objects. The execution concludes with a green "BUILD SUCCESSFUL" message and a total time of 0 seconds. The IDE interface includes a menu bar (File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Test) and a toolbar with icons for running and debugging. A sidebar on the left shows "Files", "Services", and "Favorites" views.

```
run:
Autoboxing
Integer Obj:10
Float Obj:15.2
Double Obj:40.1

Autounboxing
Integer:10
Float:15.2
Double:40.1
BUILD SUCCESSFUL (total time: 0 seconds)
```

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EXERCISE CONCLUSION

- With this exercise we have put into practice the concept of Autoboxing / autounboxing.
- For more information consult the following link:
- <https://docs.oracle.com/javase/tutorial/java/data/autoboxing.html>

ONLINE COURSE

JAVA PROGRAMMING

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