

JAVA FUNDAMENTALS COURSE

EXERCISE

PASS BY VALUE

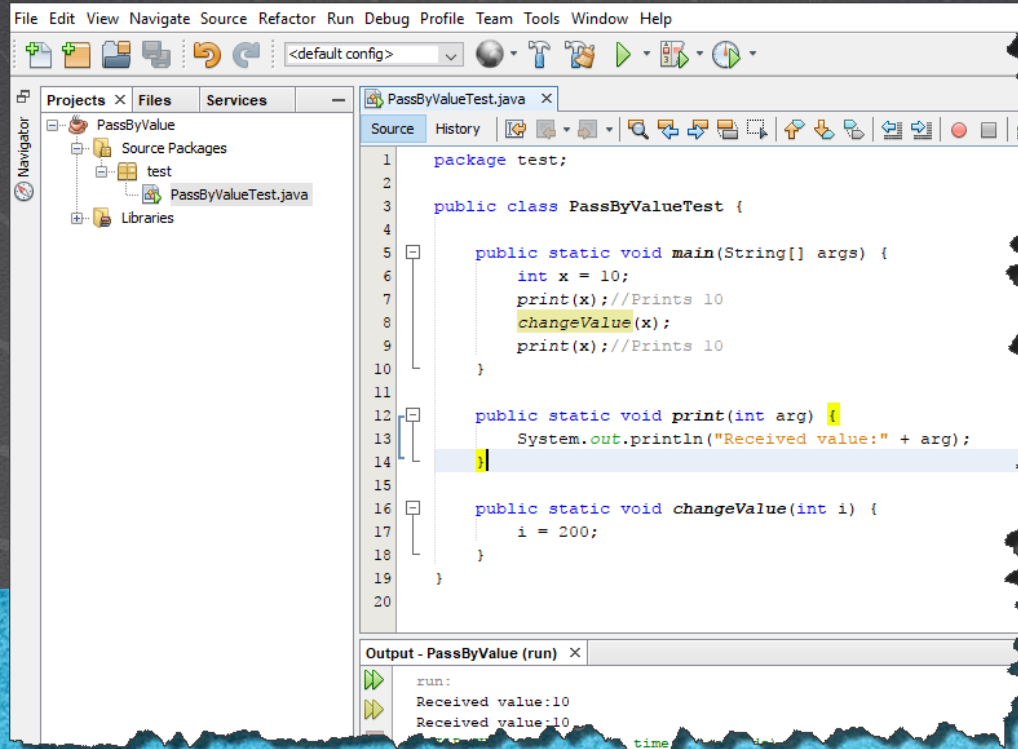


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EXERCISE OBJECTIVE

Create the PassByValue exercise. At the end we should observe the following :



The screenshot shows an IDE window with the file `PassByValueTest.java` open. The code defines a package `test`, a class `PassByValueTest`, and three methods: `main`, `print`, and `changeValue`. The `main` method prints the value of `x` (10), calls `changeValue(x)`, and prints `x` again (10). The `print` method prints the received value. The `changeValue` method sets `i` to 200. The output window shows the results of running the program.

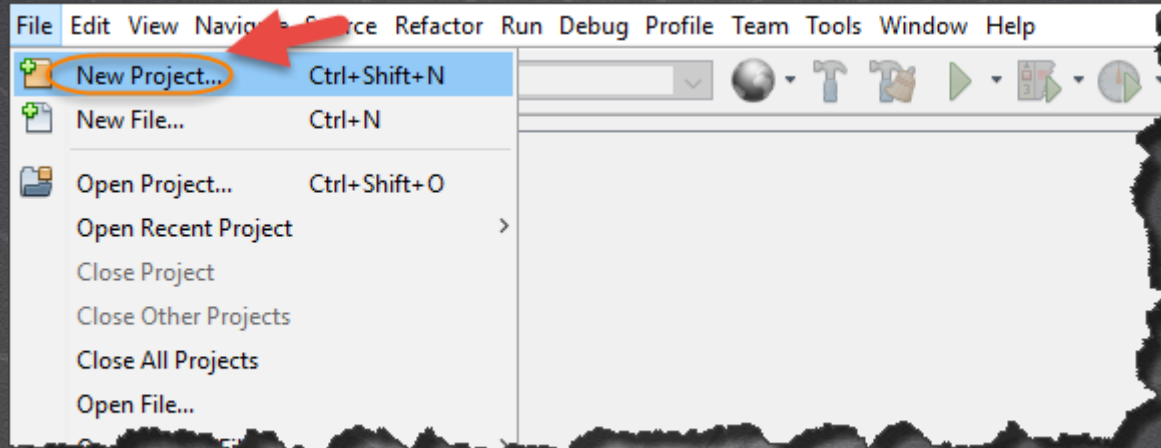
```
1 package test;
2
3 public class PassByValueTest {
4
5     public static void main(String[] args) {
6         int x = 10;
7         print(x); // Prints 10
8         changeValue(x);
9         print(x); // Prints 10
10    }
11
12    public static void print(int arg) {
13        System.out.println("Received value:" + arg);
14    }
15
16    public static void changeValue(int i) {
17        i = 200;
18    }
19
20 }
```

Output - PassByValue (run) ×

```
run:
Received value:10
Received value:10
```

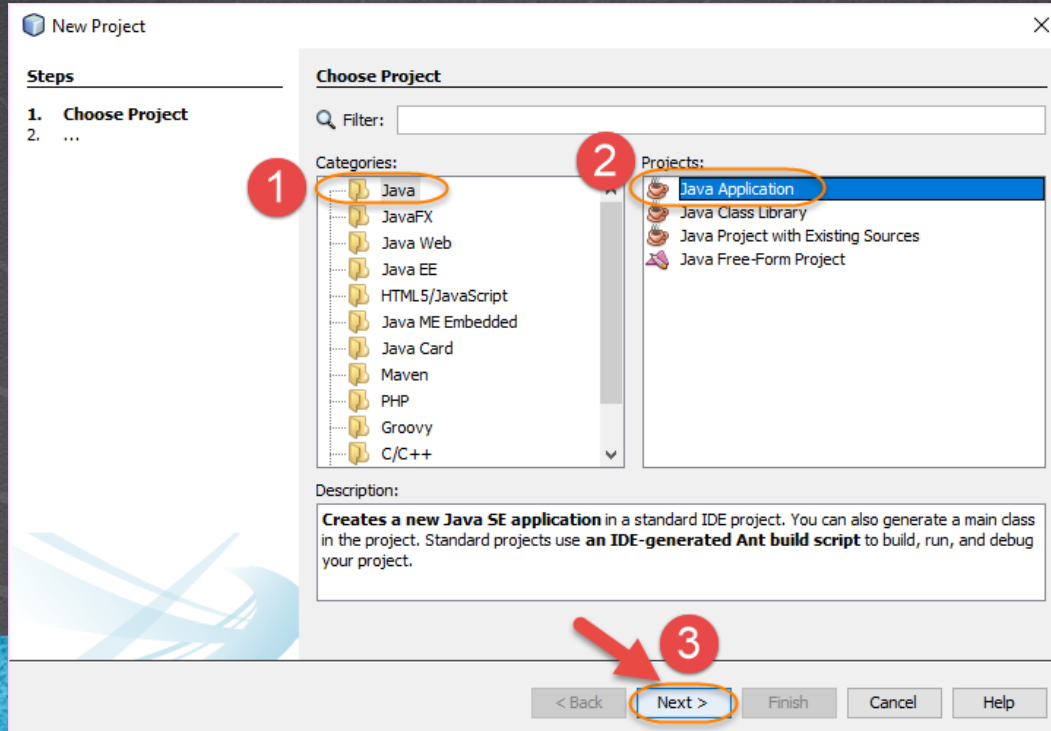

1. CREATE A PROJECT

We are going to create the PassByValue project.
Click on File -> New Project:



1. CREATE A PROJECT

Select Java -> Java Application and click on Next:



1. CREATE A PROJECT

We are going to create the PassByValue project.

New Java Application

Steps

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

Name and Location

Project Name:

Project Location:

Project Folder:

☐ Use Dedicated Folder for Storing Libraries

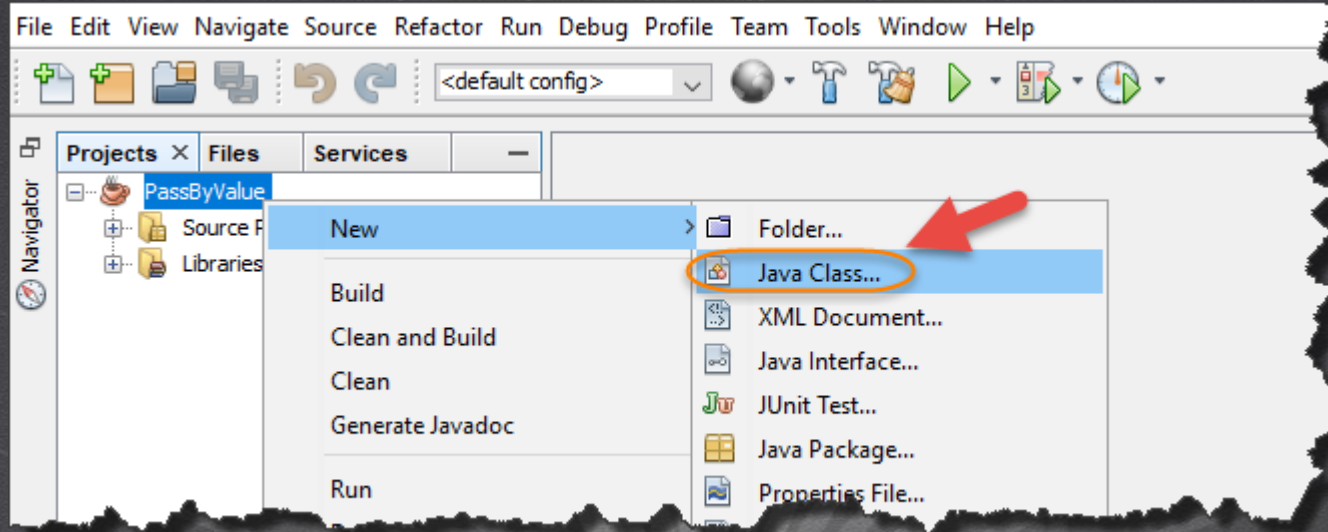
Libraries Folder:

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

☒ Create Main Class

2. CREATE A CLASS

Create a new Class:



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2. CREATE A 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

PassByValue.java:

```
package pasoporvalor;

public class PasoPorValor {

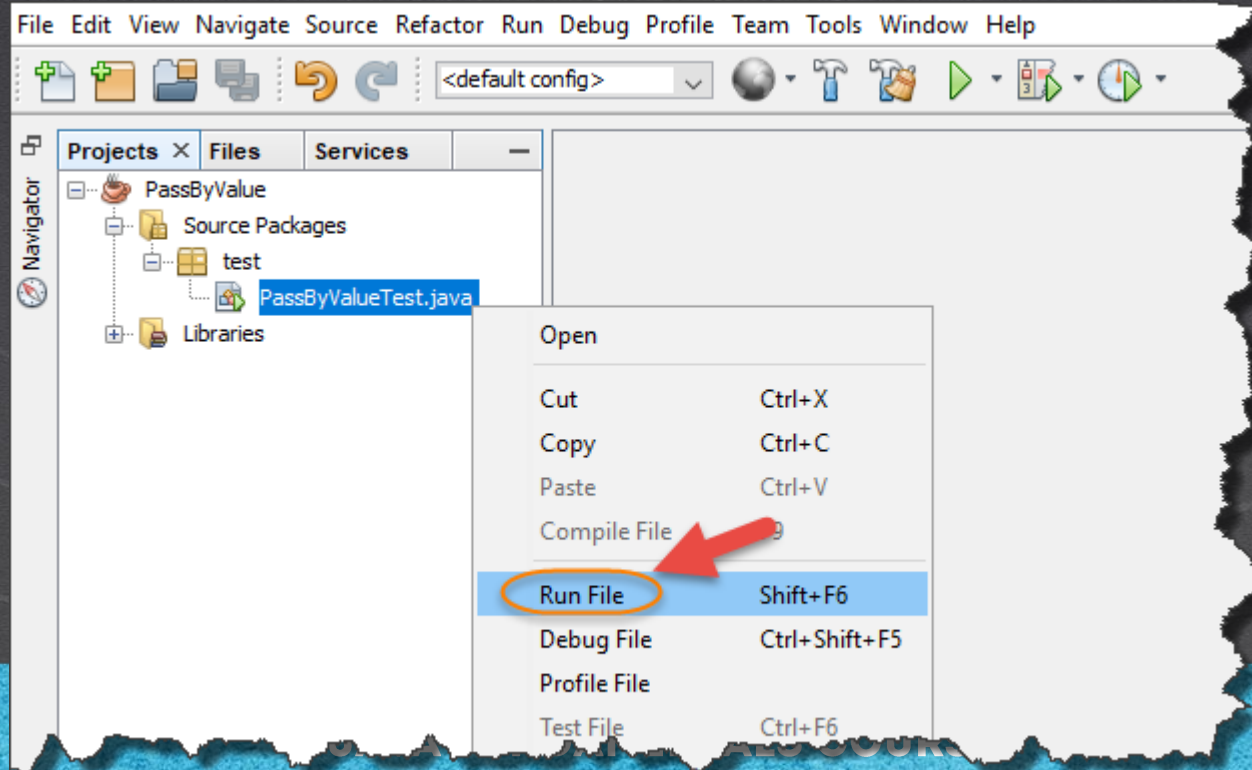
    public static void main(String[] args) {
        int x = 10;
        imprimir(x); // Imprime 10
        cambiarValor(x);
        imprimir(x); // Imprime 10
    }

    public static void cambiarValor(int i) {
        i = 200;
    }

    public static void imprimir(int arg) {
        System.out.println("Valor recibido: " + arg);
    }
}
```

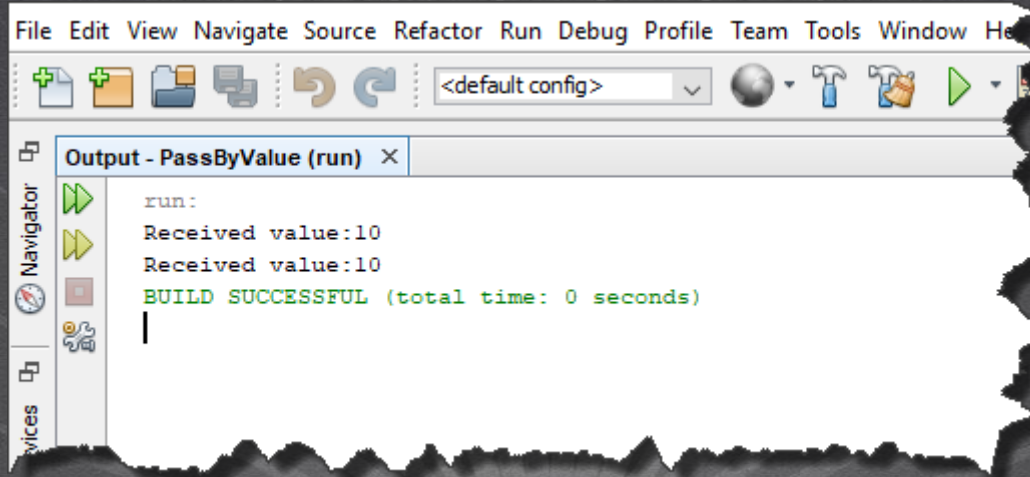

4. EXECUTE THE PROJECT

Run the project:



4. EXECUTE THE PROJECT (CONT)

The result is as follows:



EXERCISE CONCLUSION

- With this exercise we have put into practice the issue of passing parameters by value.
- As we saw, the primitive types only pass a copy of their value, and it is not possible to modify the original value from another method, only from the same method.
- In the next lesson we will see the topic of passing parameters by reference.

ONLINE COURSE

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By: Eng. Ubaldo Acosta



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