

JAVA FUNDAMENTALS COURSE

EXERCISE

PASS BY REFERENCE

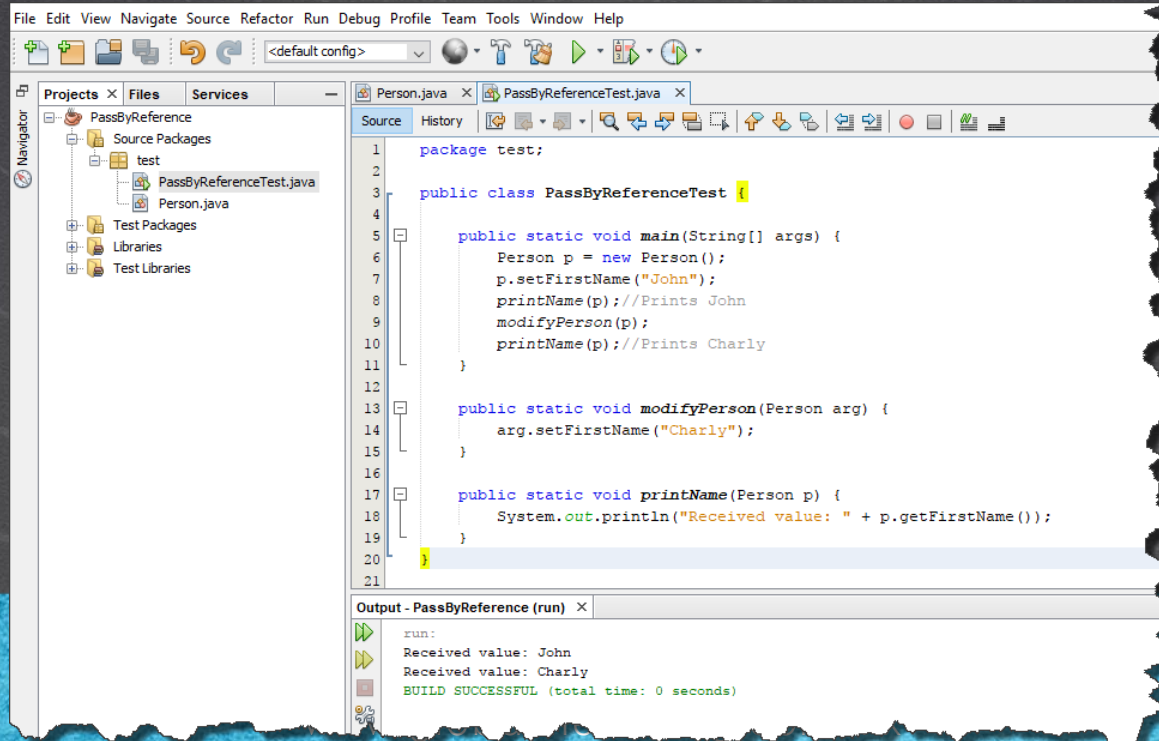


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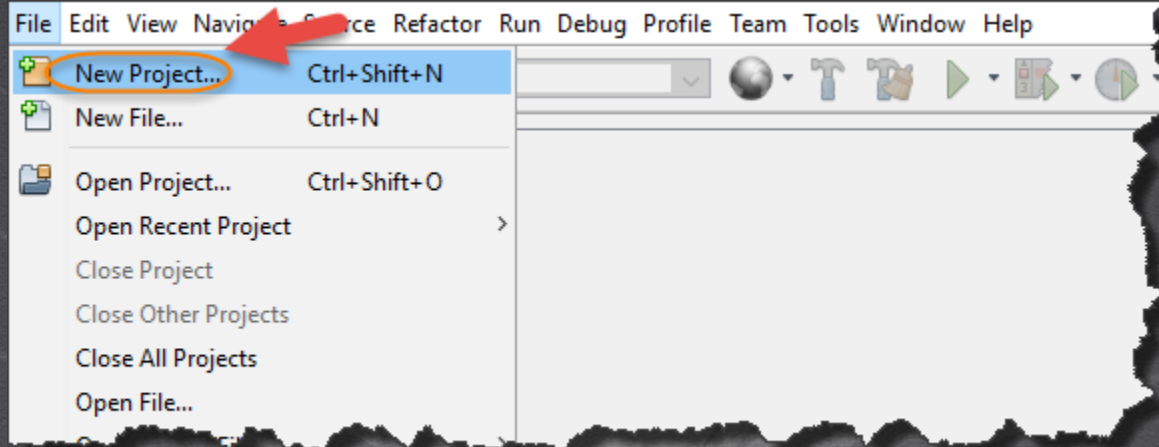
EXERCISE OBJECTIVE

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



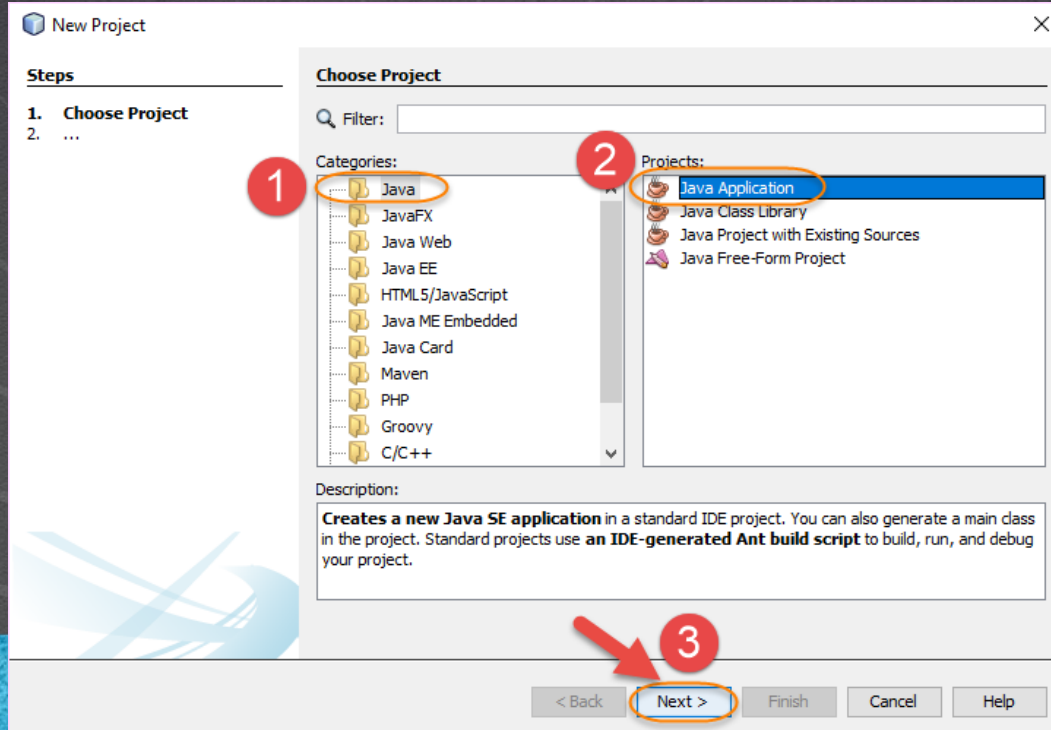
1. CREATE A PROJECT

We are going to create the PassByReference 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 PassByReference 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

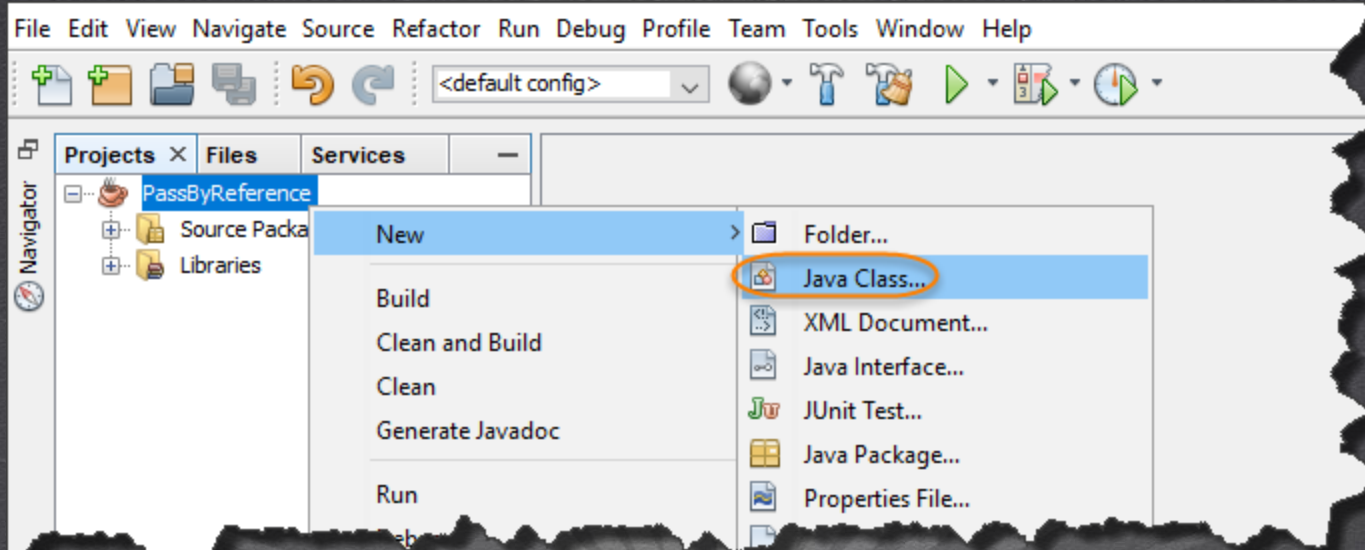
Libraries Folder:

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 (CONT)

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

Person.java:

```
package test;

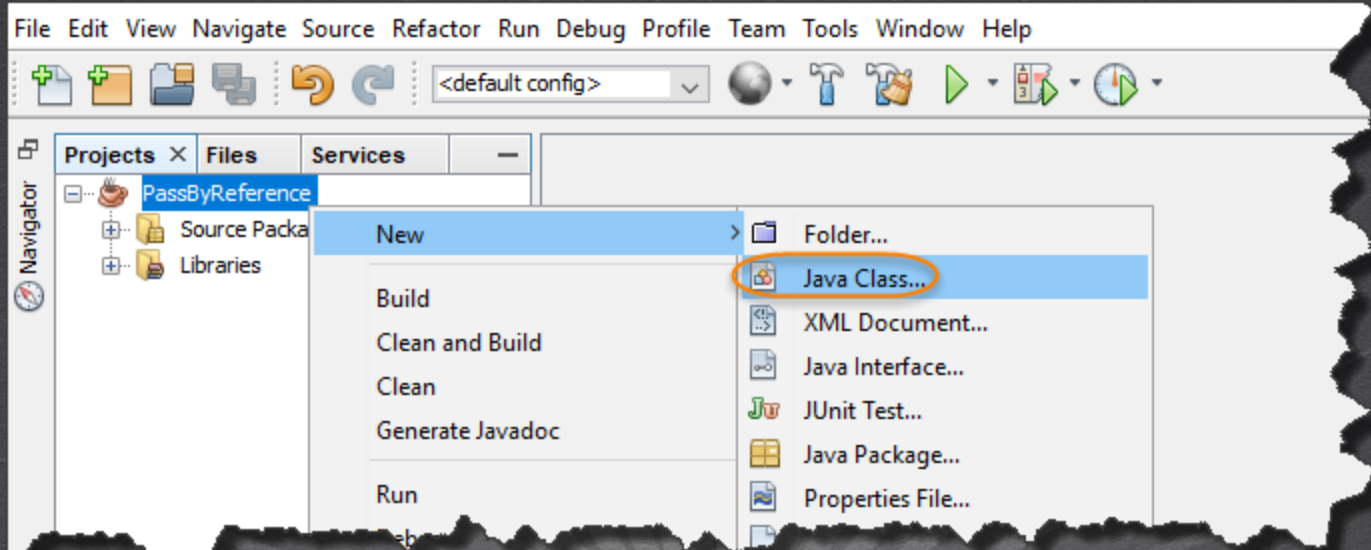
public class Person {
    String firstName;

    public String getFirstName(){
        return firstName;
    }

    public void setFirstName(String argFirstName){
        firstName = argFirstName;
    }
}
```


4. CREATE A CLASS

Create a new Class:



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4. CREATE A CLASS (CONT)

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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5. MODIFY THE CODE

PassByReference.java:

```
package test;

public class PassByReferenceTest {

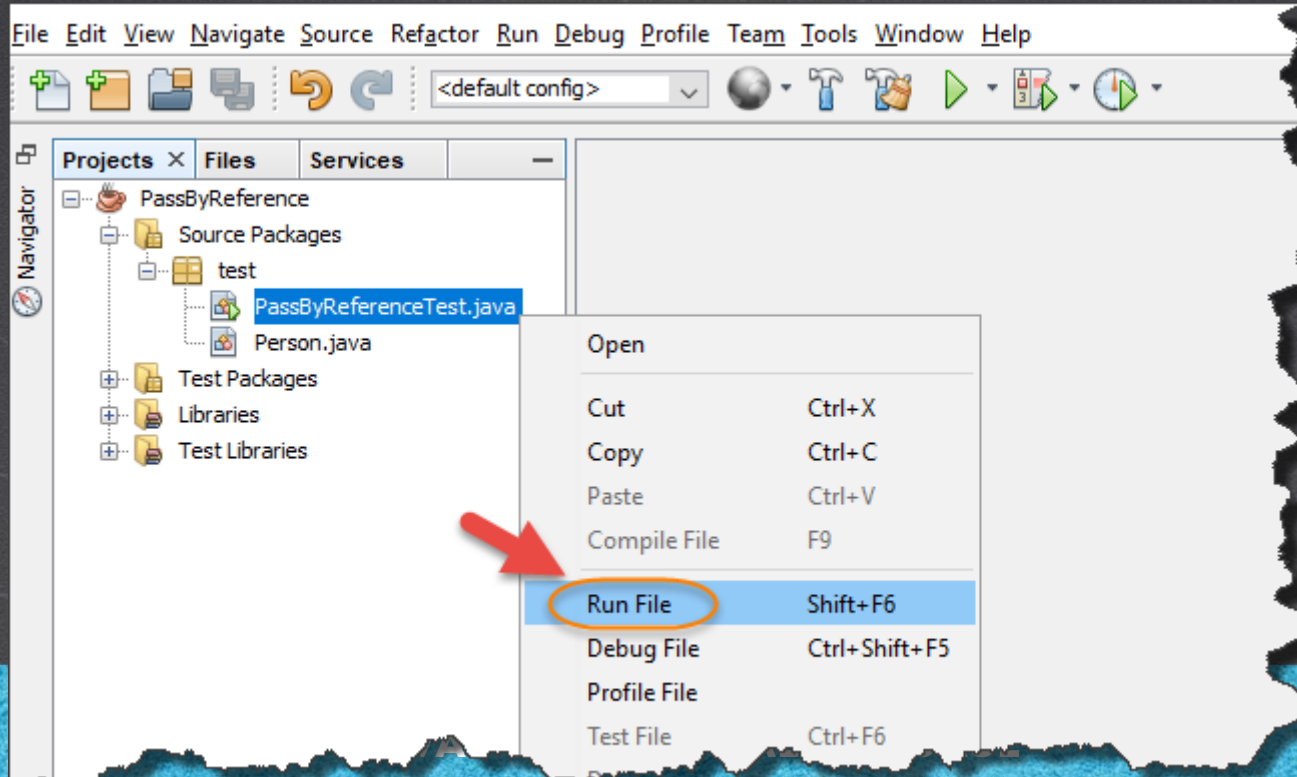
    public static void main(String[] args) {
        Person p = new Person();
        p.setFirstName("John");
        printName(p); //Prints John
        modifyPerson(p);
        printName(p); //Prints Charly
    }

    public static void modifyPerson(Person arg) {
        arg.setFirstName("Charly");
    }

    public static void printName(Person p) {
        System.out.println("Received value: " + p.getFirstName());
    }
}
```

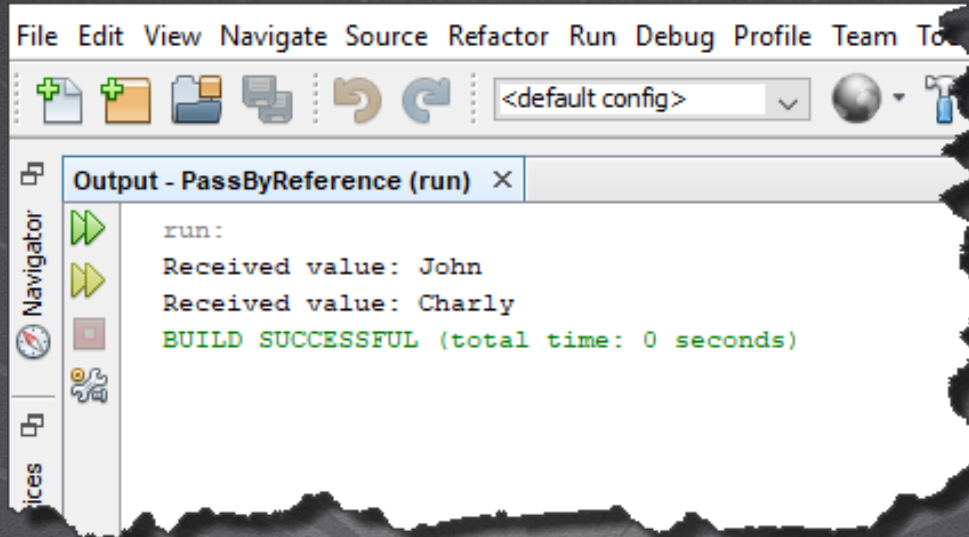

6. EXECUTE THE PROJECT

Run the project:



6. EXECUTE THE PROJECT (CONT)

The result is as follows:



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EXERCISE CONCLUSION

- With this exercise we have put into practice the issue of passing parameters by reference.
- There is much controversy, since there is only the pass by value in Java, however we learned that if that value is the reference of an object, we call it “pass by reference” and then we can modify the object directly even outside the method where the object was created, and for that reason it is called pass by reference, since it is the reference of the created object.
- Although in this code we use the reserved word return, we will explain it in the following topic in detail.

ONLINE COURSE

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By: Eng. Ubaldo Acosta



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