

JAVA FUNDAMENTALS COURSE

EXERCISE

USE OF THE this KEYWORD IN JAVA

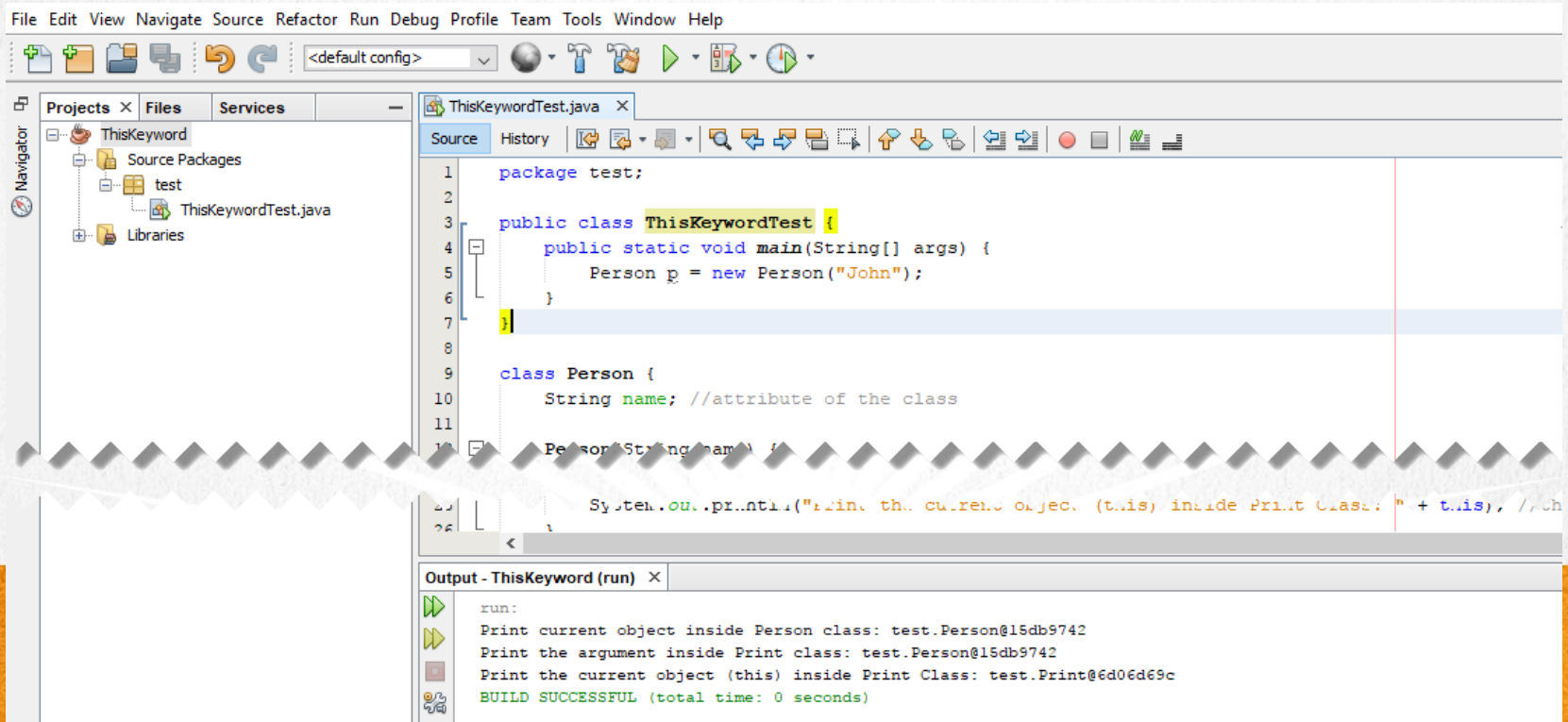


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EXERCISE OBJECTIVE

Put into practice the use of the word `this` in Java. At the end we should observe the following:

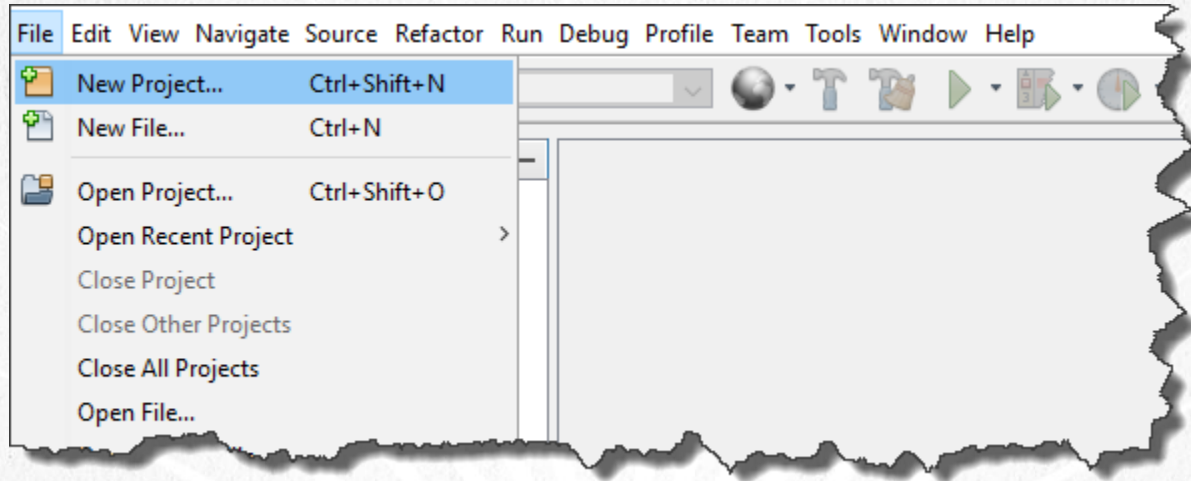


The screenshot shows an IDE with the following components:

- Navigator:** Shows a project named 'ThisKeyword' with a 'test' package containing 'ThisKeywordTest.java'.
- Source Editor:** Displays the code for 'ThisKeywordTest.java'. The code includes a package declaration, a main method that creates a 'Person' object, and a 'Person' class with a 'name' attribute and a 'Print' method. The 'Print' method uses 'this' to refer to the current object.
- Output Console:** Shows the output of the program, which prints the current object inside the 'Person' class, the argument inside the 'Print' class, and the current object (this) inside the 'Print' class. The output is as follows:
run:
Print current object inside Person class: test.Person@15db9742
Print the argument inside Print class: test.Person@15db9742
Print the current object (this) inside Print Class: test.Print@6d06d69c
BUILD SUCCESSFUL (total time: 0 seconds)

1. CREATE A PROJECT

Create a project:

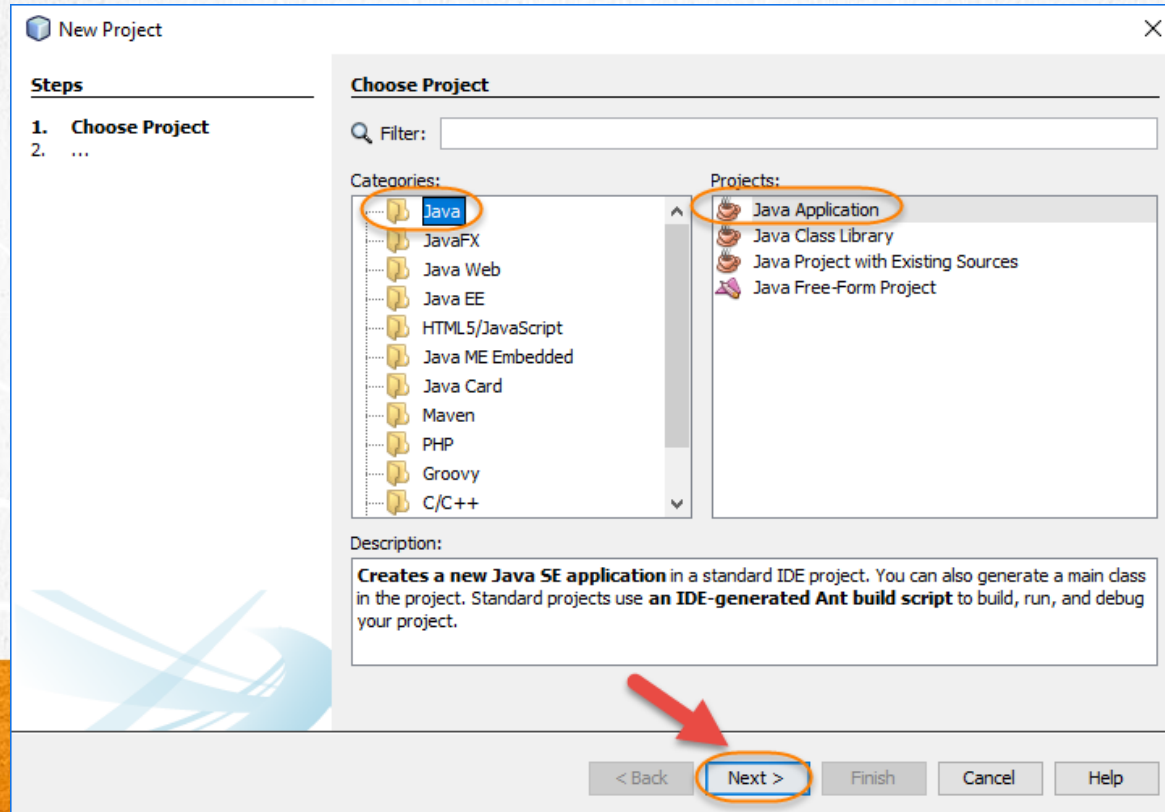


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1. CREATE A PROJECT

Create a project:



1. CREATE A PROJECT

Create a project:

New Java Application

Steps

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

Name and Location

Project Name: ThisKeyword

Project Location: C:\Courses\JavaFundamentals\Lesson14 Browse...

Project Folder: C:\Courses\JavaFundamentals\Lesson14\ThisKeyword

☐ Use Dedicated Folder for Storing Libraries

Libraries Folder: Browse...

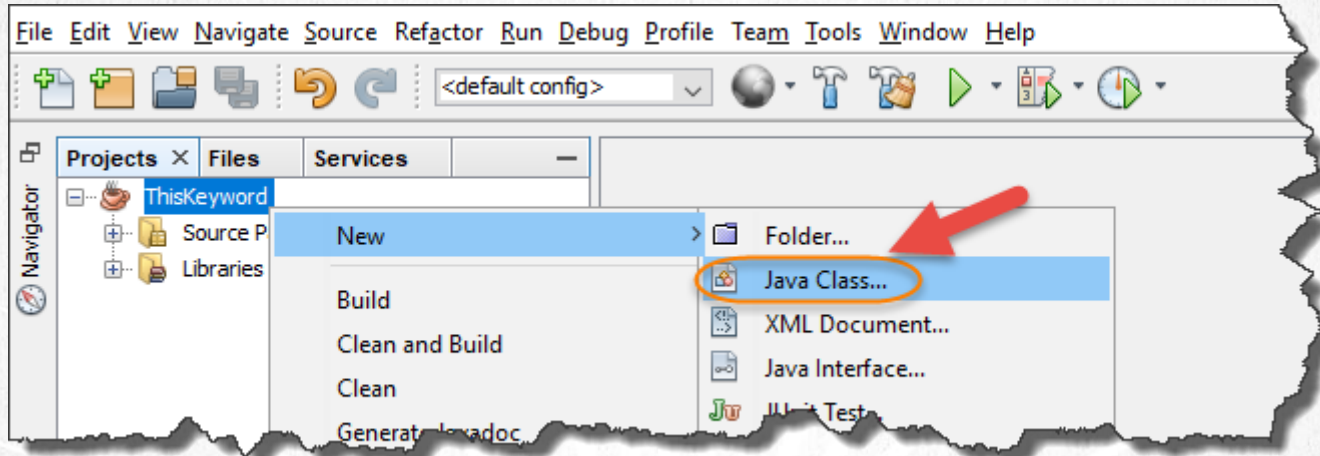
Different users and projects can share the same compilation libraries (see Help for details).

☐ Create Main Class thiskeyword.ThisKeyword

< Back Next > **Finish** Cancel Help

2. CREATE A CLASS

Create a class:

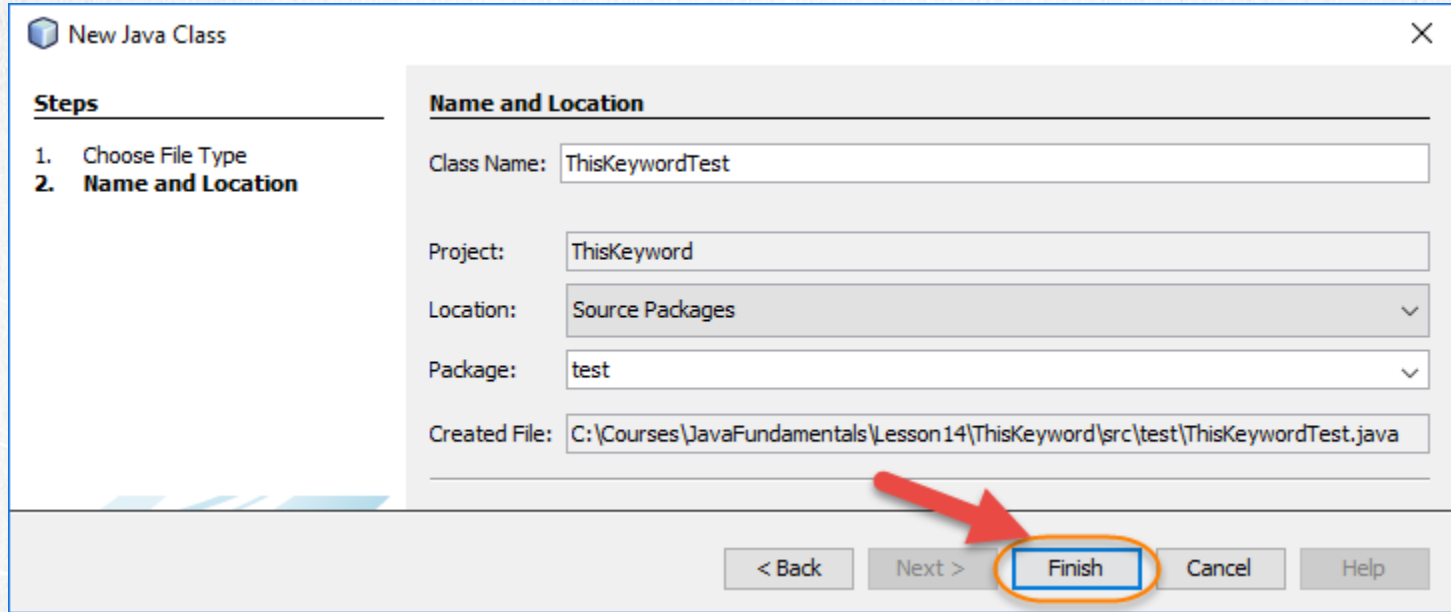


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2. CREATE A CLASS

Create a 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

ThisKeywordTest.java:

```
public class ThisKeyword {
    public static void main(String[] args) {
        Person p = new Person("John");
    }
}

class Person {
    String name; //attribute of the class

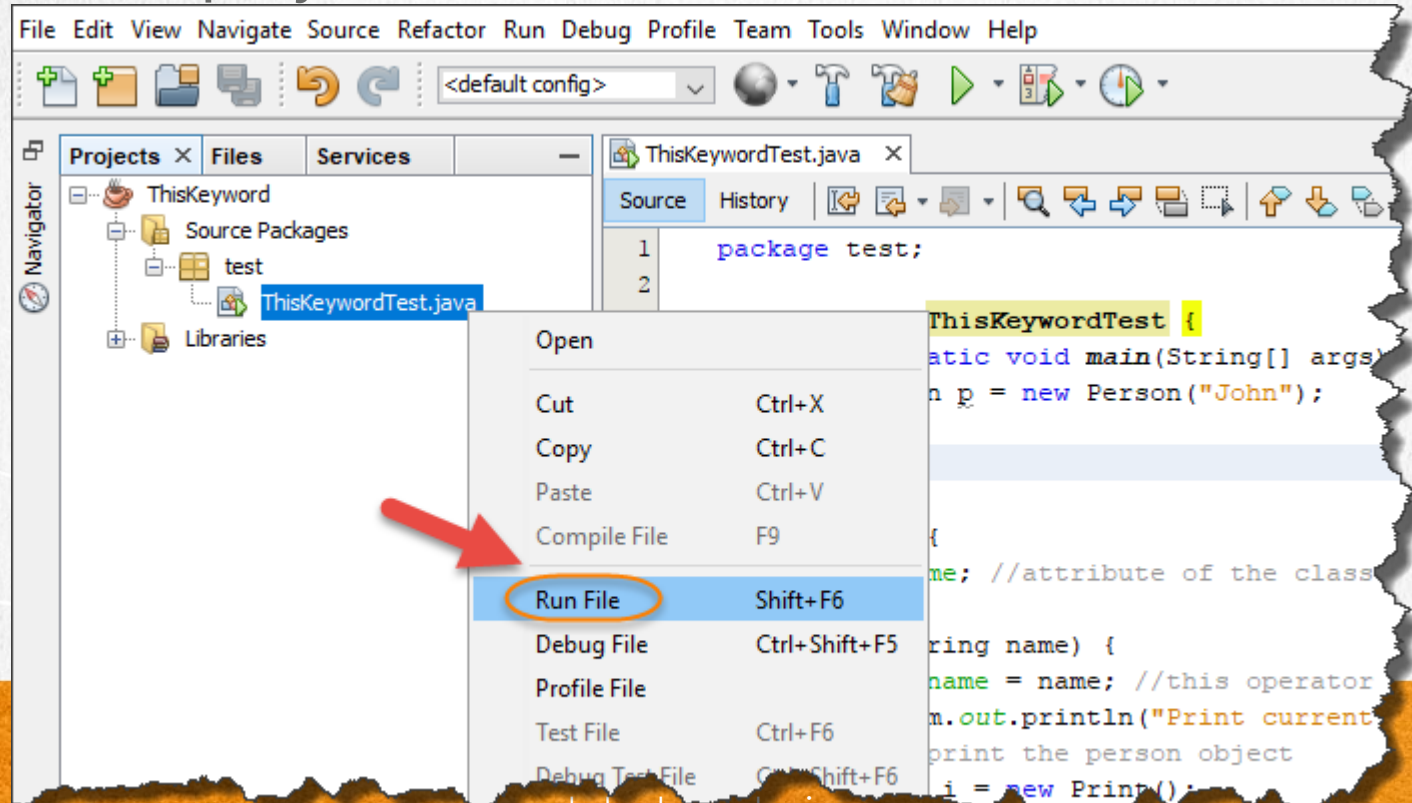
    Person(String name) {
        this.name = name; //this operator points to the current Person object
        System.out.println("Print current object inside Persona class: " + this);
        //We print the person object
        Print i = new Print();
        i.print(this); //this is the current Person object
    }
}

class Print {

    public void print(Object o) {
        System.out.println("Print the argument inside Print class: " + o); //the parameter is a Persona object
        System.out.println("Print the current object (this) inside Print Class: " + this);
    }
}
```

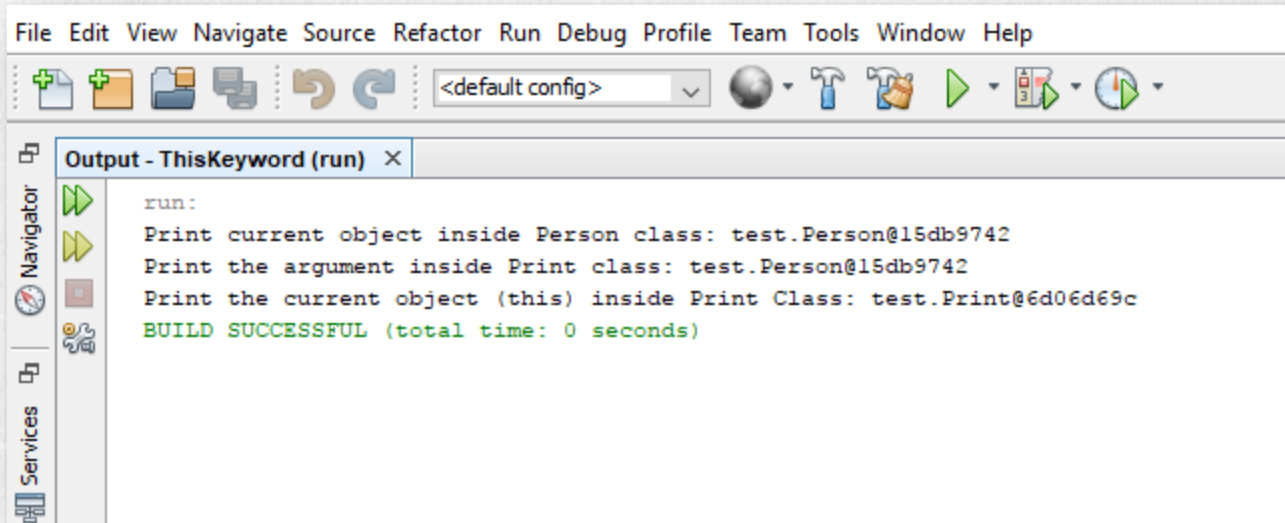

4. EXECUTE THE PROJECT

Execute the project:



4. EXECUTE THE PROJECT

The result is as follows:



EXERCISE CONCLUSION

With this exercise we have put into practice the use of the this operator, not only in its simplest context, but also in more complex contexts that help us to really understand how this operator / pointer works in Java.

For more information on the use of the this keyword:

<https://docs.oracle.com/javase/tutorial/java/javaOO/thiskey.html>

ONLINE COURSE

JAVA FUNDAMENTALS

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