

How to handle java.lang.NullPointerException?

What is NullPointerException in Java?

java.lang.NullPointerException occurs during **runtime** when a method of an object, belonging to a class is invoked, given the object value is null. In this java tutorial, we shall see how a NullPointerException occurs and the ways to handle java.lang.NullPointerException.

Example 1 – Recreate NullPointerException

In this example, we will recreate NullPointerException by calling a method/routine on an object which is having ****null**** value.

Example.java

```
package com.tut;

/**
 * @author arjun
 */
public class Example {

    public static void main(String[] args) {
        String words = null;
        String[] wordArray = words.split("\t");
        for(String word:wordArray){
            System.out.println(word);
        }
    }
}
```

When the program is run, we get a NullPointerException at line `words.split("\t")`, where the value of `words` is **null**. The output is shown below:

```
Exception in thread "main" java.lang.NullPointerException
    at com.tut.NullPointerExceptionExample.main(NullPointerExceptionExample.java:10)
```

How to handle java.lang.NullPointerException ?

To handle this `NullPointerException`, do a null check for the object before accessing the methods/routines/behaviors of it.

Example 2 – Handle `NullPointerException` using Null Check

In the following example, before calling `split()` method on `words` array, we are checking if `words` object is not null using [if statement](#).

Example.java

```
package com.tut;

/**
 * @author arjun
 */
public class Example {

    public static void main(String[] args) {
        String words = null;

        String[] wordArray = null;
        if(words!=null){
            wordArray = words.split("\t");
        }
        if(wordArray!=null){
            for(String word:wordArray){
                System.out.println(word);
            }
        }
        System.out.println("Program handles NullPointerException.");
    }
}
```

Even though, the code above is a dead code, it still demonstrates to first check if an object is null, and then proceed with accessing its methods. When the code is run, the output is as shown in the following.

Output

```
Program handles NullPointerException.
```

Example 3 – Handle `NullPointerException` using Try-Catch

Or, you can use [Try-Catch block](#) around the code snippet that has the potential to throw `NullPointerException`.

Example.java

```
package com.tut;
```

```

/**
 * @author arjun
 */
public class Example {

    public static void main(String[] args) {
        String words = null;
        String[] wordArray = null;

        try {
            wordArray = words.split("\t");
            try {
                for(String word:wordArray){
                    System.out.println(word);
                }
            } catch (NullPointerException e) {
                System.out.println("wordArray is holding null. NullPointerException is h
            }
        } catch (NullPointerException e) {
            System.out.println("words is holding null. NullPointerException is handled."
        }
    }
}

```

Here, we used a try-catch block inside a try-catch block, for catching `NullPointerException` that could be thrown by the possible objects, which are `String` objects in this example. Well, the object could be of any class type. When the above program is run, the output is as shown in the following.

Output

```
words is holding null. NullPointerException is handled.
```

Conclusion

In this [Java Tutorial](#), we learned what `NullPointerException` is and how we handle `java.lang.NullPointerException`.

Java Tutorial

- ◆ [Java Tutorial](#)
- ◆ [Java Introduction](#)
- ◆ [Java Installation](#)
- ◆ [IDEs for Java Development](#)
- ◆ [Java HelloWorld Program](#)
- ◆ [Java Program Structure](#)
- ◆ [Java Packages](#)

▼ [Java Datatypes](#)

◆ [Java Variable Types](#)

◆ [Java Access Modifiers](#)

◆ [Java Operators](#)

◆ [Java Decision Making](#)

◆ [Java Loops](#)

◆ [Java Array](#)

◆ [Java OOPs](#)

◆ [Java String](#)

◆ [Java Exception Handling](#)

◆ [Java File Operations](#)

◆ [Java Date & Time](#)

◆ [Java MySQL](#)

◆ [Java Random](#)

◆ [Java Math](#)