

Intro

Survey on Code Examples

Dear participant,

Our research group is investigating the usefulness of code examples in understanding the usage of APIs.

We would be grateful if you could spend a few minutes of your time to answer the following survey, which consist of two parts:

1. A questionnaire about your background.
2. A short evaluation of ten code examples showing the usage of ten methods of an API (i.e., one code example per method).

The survey will take less than 10 minutes to complete, and your participation is anonymous and voluntary. If you have any question, do not hesitate to contact Laura Moreno via email at lmorenoc@utdallas.edu.

Thanks for your help.

Background Information

Background Information

Please, answer the following questions according to your experience in software development.

1. For how many years have you developed software?

1 ▼

2. Do you have any industrial experience as software developer?

- ☐ Yes
- ☐ No

For how many years?

 ▼

3. How often do you make use of third party libraries in your software projects?

- ☐ Never
- ☐ Rarely - I use third party libraries in less than 33% of my projects
- ☐ Occasionally - I use third party libraries in more than 33% but less than 66% of my projects
- ☐ Frequently - I use third party libraries in more than 66% of my projects

4. How often do you use code examples found on the Internet to check how to use the API of a library?

- ☐ Never
- ☐ Rarely - I use code examples for less than 33% of the APIs I use
- ☐ Occasionally - I use code examples for more than 33% but less than 66% of the APIs I use
- ☐ Frequently - I use code examples for more than 66% of the APIs I use

Code Examples for Apache Commons Lang

Code Examples for Apache Commons Lang

The next set of questions refers to code examples showing the usage of some methods of the [Apache Commons Lang](#) API.

1. Have you contributed to the implementation of the [Apache Commons Lang](#) project?

- ☐ Yes
- ☐ No

Code Examples for Apache Commons Lang

2. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.countMatches(java.lang.CharSequenc
java.lang.CharSequence)
```

Example

```
1 @Nonnull String str;
2 // str -> the CharSequence to check, may be null
3 // "\"" -> the substring to count, may be null
4 StringUtils.countMatches(str, "\\");
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

3. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.deleteWhitespace(java.lang.String)
```

Example

```
1 String expected("<html><head>" + "</head><body>" + "<img src=\""/img1.pn
2 // expected -> the String to delete whitespace from, may be null
3 StringUtils.deleteWhitespace(expected);
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

4. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.endsWith(java.lang.CharSequence,
java.lang.CharSequence)
```

Example

```
1 String path;
2 // StringUtils.substringBefore(path,"?") -> the CharSequence to check,
3 // ".coffee" -> the suffix to find, may be null
4 StringUtils.endsWith(StringUtils.substringBefore(path,"?"),".coffee");
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

5. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.getLevenshteinDistance(java.lang.C
java.lang.CharSequence)
```

Example

```
01 int minLength;
02 int maxLength;
03 int nPermutations;
04 String str=randomString(minLength + (maxLength - minLength + 1));
05 for(int i=0; i < nPermutations; ++i)
06 {
07     StringBuilder permutedBuilder=new StringBuilder(str);
08     String permuted=permutedBuilder.toString();
09     // str -> the first String, must not be null
10     // permuted -> the second String, must not be null
11     StringUtils.getLevenshteinDistance(str,permuted);
12 }
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

6. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.join(java.lang.Object[], java.lang.
```

Example

```
01 /**
02  * Number of base package levels that is shown as a single node in the
03  * root level. Should be at least 2, because most packages start with "
04  * "com.foo".
05  */
06 public static final int PRESERVE_PACKAGES=2;
07 final String loggerName;
08 String[] pieces=StringUtils.split(loggerName, ".");
09 // pieces -> the array of values to join together, may be null
10 // "." -> the separator character to use, null treated as ""
11 // 0 -> the first index to start joining from. It is an error to pass
12 //       of the array
13 // PRESERVE_PACKAGES -> the index to stop joining from (exclusive). It
14 //       end index past the end of the array
15 StringUtils.join(pieces, ".", 0, PRESERVE_PACKAGES);
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

7. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.removeEnd(java.lang.String, java.la
```

Example

```
1 StringBuffer b=new StringBuffer();
2 String str=b.toString();
3 // str -> the source String to search, may be null
4 // ", " -> the String to search for and remove, may be null
5 StringUtils.removeEnd(str, ", ");
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

8. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.repeat(char,int)
```

Example

```
1 final int len=1000;
2 // 'x' -> character to repeat
3 // len -> number of times to repeat char, negative treated as zero
4 StringUtils.repeat('x',len);
```

- ☐ Not useful at all
- ☐ Slightly useful
- ☐ Useful
- ☐ Very useful

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

9. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.StringUtils.split(java.lang.String,char)
```

Example

```
1 String basicHttpFetcherProxy;  
2 // basicHttpFetcherProxy -> the String to parse, may be null  
3 // ':' -> the character used as the delimiter  
4 StringUtils.split(basicHttpFetcherProxy,':');
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

10. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.ArrayUtils.subarray(byte[],int,int)
```

Example

```
1 String s;  
2 ByteBuffer bb=Charsets.UTF_8.encode(s);  
3 // bb.array() -> the array  
4 // 0 -> the starting index. Undervalue (<0) is promoted to 0, overvalue (>array.length) is promoted to array.length  
5 //      in an empty array.  
6 // bb.limit() -> elements up to endIndex-1 are present in the returned array  
7 //      start index produces empty array, overvalue (>array.length) is promoted to array.length  
8 ArrayUtils.subarray(bb.array(),0,bb.limit());
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in understanding the usage of the aforementioned method?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How useful are the comments describing the arguments of the aforementioned method in understanding its usage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please, justify your answers.

Code Examples for Apache Commons Lang

11. The next code snippet exemplifies the usage of the method:

```
org.apache.commons.lang3.text.WordUtils.uncapitalize(java.lang.String)
```

Example

```
1 Method method;
2 JsonProperty property=method.getAnnotation(JsonProperty.class);
3 if(property == null)
4 {
5 String name=method.getName();
6 // name.substring(3) -> the String to uncapitalize, may be null
7 WordUtils.uncapitalize(name.substring(3));
8 }
```

Considering this code example, answer the following questions:

	Not useful at all	Slightly useful	Useful	Very useful
How useful is the code example (including the comments) in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

understanding the usage of the aforementioned method?

How useful are the comments describing the arguments of the
aforementioned method in understanding its usage?



Please, justify your answers.

Comments

Comments

1. Do you have any further comments on the code examples presented in this survey?

2. Your opinion is important to us. Please, share your email address if we can contact you to follow up on any of your responses.