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

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

1. For how many years have you developed software?
2. Do you have any industrial experience as software developer?

- Yes
- No

For how many years?

1

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 Xerces
1. Have you contributed to the implementation of the Apache Xerces project?
   - Yes
   - No

**Code Examples for Apache Xerces**

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

   ```java
   org.apache.xerces.xni.parser.XMLParserConfiguration.setErrorHandler(
       org.apache.xerces.xni.parser.XMLErrorHandler)
   ```

   **Example**
   ```java
   private final HtmlPage page_;  
   final DomNode node;           
   final URL url;                
   this.page_ = (HtmlPage)node.getPage();
   final HTMLParserListener listener=page_.getWebClient().getHTMLParserLister()
   /** newHTMLErrorHandler(listener,url) -> The error resolver. */
   fConfiguration.setErrorHandler( 
       new XMLErrorHandler(listener,url));
   ```

   Considering this code example, answer the following questions:

<table>
<thead>
<tr>
<th>How useful is the code example (including the comments) in understanding the usage of the aforementioned method?</th>
<th>Not useful at all</th>
<th>Slightly useful</th>
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Code Examples for Xerces

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

```

Example
---
private final HtmlPage page;
private static final String FEATURE_PARSE_NOSCRIPT="http://cyberneko.org/
    + "parse-noscript-content";
final DomNode node;
this.page_=(HtmlPage)node.getPage();
// FEATURE_PARSE_NOSCRIPT -> The unique identifier (URI) of the feature
// !page_.getWebClient().isJavaScriptEnabled() -> The requested state o
setFeature(FEATURE_PARSE_NOSCRIPT,!page_.getWebClient().isJavaScriptEna
```

Considering this code example, answer the following questions:

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Please, justify your answers.

Code Examples for Apache Xerces

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

```
org.apache.xerces.xni.parser.XMLInputSource.XMILInputSource(java.lang.St
java.lang.String,java.lang.String,java.io.Reader,java.lang.Stri
```

Example
---
final DomNode parent;
02 final String source;
03 final HtmlPage page=(HtmlPage)parent.getPage();
04 final URL url=pageWebResponse().getRequestSettings().getUrl();
05 // null -> The public identifier, if known.
06 // url.toString() -> The system identifier. This value should always b
07 // be relative or absolute. If the system identifier is relati
08 // identifier should be set.
09 // null -> The base system identifier. This value should always be set
10 // of the base system identifier, if possible.
11 // newStringReader(source) -> The character stream.
12 // null -> The original encoding of the byte stream used by the reader
13 new XMLInputSource(null,url.toString(),null,new StringReader(source),n

Considering this code example, answer the following questions:

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Please, justify your answers.

**Code Examples for Apache Xerces**

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

```java
org.apache.xml.serialize.XMLSerializer.XMLSerializer(java.io.Writer,
org.apache.xml.serialize.OutputFormat)
```

**Example**

01 private PronomService pronomService;
02 private String filenamePattern;
03 File targetDir;
04 Element sigFile=pronomService.getSignatureFileV1().getElement();
int version=Integer.valueOf(sigFile.getAttribute("Version"));
String fileName=String.format(filenamePattern,version);
BufferedWriter writer=null;
File outputFile=new File(targetDir,fileName);
writer=new BufferedWriter(new FileWriter(outputFile));
// writer -> The writer to use
new XMLSerializer(writer,new OutputFormat(Method.XML,"UTF-8",true));

Considering this code example, answer the following questions:

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**Code Examples for Apache Xerces**

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

    org.apache.xml.serialize.XMLSerializer.XMLSerializer(java.io.OutputStream,
    org.apache.xml.serialize.OutputFormat)

    final File fileName;
    File projectFile=new File(fileName + ".cbx");
    OutputStream outStream=new FileOutputStream(projectFile);
    OutputFormat format=new OutputFormat("xml","UTF-8",true);
    // outStream -> The output stream to use
    // format -> The output format to use, null for the default
    new XMLSerializer(outStream,format);
Considering this code example, answer the following questions:

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Please, justify your answers.

Code Examples for Apache Xerces

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

```java
```

Example

1  CoreDocumentImpl document;
2  ElementImpl element=new ElementImpl(document,"jeeapplicationserver");
3  ElementImpl jmsconnectionfactories=new ElementImpl(document,"jmsconnect
4      element.appendChild(jmsconnectionfactories);
```

Considering this code example, answer the following questions:

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Code Examples for Apache Xerces

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

```java
org.apache.xml.serialize.BaseMarkupSerializer.asContentHandler()
```

Example
1 final File fileName;
2 File projectFile=new File(fileName + ".cbx");
3 OutputStream outputStream=new FileOutputStream(projectFile);
4 OutputFormat format=new OutputFormat("xml","UTF-8",true);
5 Serializer serializer=new XMLSerializer(outputStream,format);
6 serializer.asContentHandler();

Considering this code example, answer the following questions:

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Code Examples for Apache Xerces

9. The next code snippet exemplifies the usage of the method:
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Code Examples for Apache Xerces

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

```
org.apache.xerces.xni.XMLAttributes.getLocalName(int)
```

Example

```
private HtmlElement body_;  
final QName elem;  
final XMLAttributes attrs;  
if (body_ != null && "body".equalsIgnoreCase(elem.localpart) & attrs
```
Considering this code example, answer the following questions:

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Please, justify your answers.

**Code Examples for Apache Xerces**

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

```java
```

**Example**

1 // "xml" -> The specified output method
2 // "UTF-8" -> The specified encoding
3 // true -> True for pretty printing
4 new OutputFormat("xml","UTF-8",true);
Considering this code example, answer the following questions:

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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.