

Software engineering 2 project

Code inspection document

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# 1. Introduction

The aim of this document is to report on the quality status of some code extracts from the Apache OFBiz project, an open source product for the automation of enterprise processes. Such inspection is performed with the support of a review checklist that contains all possible issues that can be found in a java source code.

# 2. Assigned classes

The paths of the two assigned classes are, respectively:

../apache-ofbiz-16.11.01/framework/entity/src/main/java/org/apache/ofbiz/entity/util/EntityDataAssert.java

../apache-ofbiz-16.11.01/framework/entity/src/main/java/org/apache/ofbiz/entity/util/EntityCrypto.java

For the sake of simplicity, following in the document, we will call the two classes with only their names, that are respectively EntityDataAssert and EntityCrypto.

# 3. Functional role of assigned set of classes

# 4. List of issues found by applying the checklist

In this section we are going to list all the issues found according to the checklist provided.

## 4.1. EntityDataAssert.java

1. The class hasn’t got a meaningful name.
2. The name of the method declared in line 42 is ambiguous, the verb “assert” isn’t clear in the context of the class.
3. The heading comment figures as Javadoc due to the multiple stars.
4. Declarations of methods in lines 42, 70 and 78 exceed the 120-character limit per line.
5. Javadoc is missing in every method.
6. The variable checkValue of type GenericValue has an ambiguous name and the usage of a verb at the imperative is more likely to suggest a method name and not that the variable is actually a value to be checked. This possible misunderstanding occurs every time the variable checkValue is involved (e.g. line 56, 73, 74, 78, 79, 84, 94, 102). A better name could be ValueToCheck.
7. Same story for the checkField object (e.g. at lines 102, 105, 107).
8. Same story for the checkPK object (e.g. at lines 102, 105, 107).
9. The “PK” acronym should be cased consistently, maybe it’s better to avoid lowercases for example as for the variable nonpkFieldName which might be difficult to read (e.g. lines 95, 97, 98, 102, 103, 106), as well as mixed cases like for the method name getNoPkFieldNames (e.g. line 95, 106).
10. The “PK” acronym should be explained, for example in the existing comment in line 83.

## 4.2. EntityCrypto.java

1. The class hasn’t got the related Javadoc in line 50.
2. Javadoc is missing in every method starting from the one at line 124.

# 5. Other highlighted problems