Analyse de code source Java avec Spoon

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But de la séance:
- comprendre la philosophie et l'architecture de Spoon
- pratiquer l'analyse statique de code source Java avec la librairie Spoon

Context:
Source code analysis is done by compilers and interpreters for executing code. However, source code analysis is very useful in a number of other scenarios For instance, source code analysis enables one to: find specific code elements, compute metrics, check coding conventions, detect anti-patterns and bugs.

Spoon is an open-source library for analyzing Java source code. The paper presenting Spoon is avaiable on the Internet[1]

Getting Started:
- Read sections 1 and 2 of the paper
- Understand, compile and run CatchProcessor[2]. (java -cp spoon.jar spoon.Launcher -i sourceFolder -p spoon.examples.analysis.processin..CatchProcessor)

Tasks:
- Prepare a presentation on one facet of Spoon (see topics below, they correspond to the paper). You can use the Javadoc API as well for preparing the presentation.
- Choose at least 3 non-syntactic rules of FindBugs that you find interesting and relevant. Implement them with Spoon (list of rules in footnote[3]).

Report:
3 Java files containing Spoon processors documented in a literate programming style (mixing text and code).

Appendix:
Download info: http://spoon.gforge.inria.fr/Spoon/HomePage

Presentation topics:
- Overview of Spoon
- The Spoon Metamodel of Java
- Quering Source Code Elements
- Processing Code Elements

1 http://www.monperrus.net/martin/source-code-analysis-transformation-spoon.pdf
2 https://gforge.inria.fr/scm/viewvc.php/trunk/spoon-examples/src/main/java/spoon/examples/analysis/processing/CatchProcessor.java?view=markup&root=spoon
3 http://findbugs.sourceforge.net/bugDescriptions.html