Introduction  

JSR 308 [2] is extending the possible locations of annotations in Java source code. Annotations will be possible on all occurrences of types and implementing realistic type systems is becoming an option. A reference implementation and compiler-plugin framework for JSR 308 is now available [3].

The goal of this semester thesis is the development of a JSR 308 compiler-plugin that checks the rules of Generic Universe Types [1].

The main parts of this project are:

1. Understanding JSR 308 and the possibilities to use the framework for a Generic Universe Types checker.
2. Implementing such a compiler plugin.
3. Ensuring its correct behavior using a number of test cases.

Possible extensions include the implementation of a bytecode verifier that checks whether the Universe annotations are correctly used in Java bytecode or the support of runtime checks.

Literatur

