Dynamic Languages - Übungen Blatt 7

Abgabedatum: `15. Juni 2010`

This are the first in a series of exercises to build an interpreter for a small prototype-based language. The parser for the language exists already. To get an impression of how the language looks like, look at the docstrings in the AST node classes and at the tests. All the neccessary files can be found in the `simple_blatt7.zip` file. Please don't change any of the existing files, so that future additions from our side are possible.

You can ignore parents for this week.

Aufgabe 1 - Basic Object Model

(4 Punkte)

Start implementing the prototype-based object model of the language. There are three types of objects: integers, "normal" objects and methods. These three types of objects should correspond to three classes in your source code that implement them. Integers just have an integer value. Normal objects have a set of attributes. Methods are like normal objects but in addition they also have a reference to an AST node that the parser produces which describes how the method behaves.

As opposed to the earlier exercises, these classes should not be usable from Python (so there is no need to override e.g. `__getattr__`). Instead they should have an interface that the interpreter can use. There are some tests about this in `aufgaben/simple/test_objmodel.py`. Write more.

Aufgabe 2 - Simple Interpreter

(6 Punkte)

Write a simple interpreter. `:-)`

It is fine if we get an exception in unsupported cases. The test files should pass, though. As usual, write more tests.