Concepts of Programming Languages

http://proglang.informatik.uni-freiburg.de/teaching/konzepte/2009ss/

Exercise Sheet 10

2009-07-02

Exercise 1 (6 points)

The type inference algorithm presented in the lecture works by generating equations between types that are solved immediately through unification. A disadvantage of this approach is that the specification of the type system (e.g. equations between types) and the implementation of equation solving (e.g. unification) is interweaved.

Rewrite the inferencer so that it works in two phases. In the first phase it should generate a set of equations (specification phase) and in the second phase it should solve these equations (implementation phase). If you like, you could also serialize the equations generated in the first phase and solve them with a different program, potentially written in a different language (such as Java).

Exercise 2

Start with one of the projects described on the homepage of the lecture. Before starting the project, you should discuss your approach with Stefan Wehr.

Submission

Via email to wehr@informatik.uni-freiburg.de. The strict submission deadline is 2009-07-09, 1 pm.