Homework set 19: programming in ML using the module language; interpretive implementation of logic programming — due Wednesday 2 May

Total number of points available on this homework is 100. Full credit is equivalent to 100 points.

1. (50 pts.) In class we developed an interpreter for the core Prolog language. It was written in a direct style, and it performed the full backtracking search of Prolog, accumulating all possible answer sets before returning.

   In this exercise, you are to keep the unification component unchanged.

   Use a continuation-passing programing style to implement the Prolog search. (Use success and failure continuations.)

2. (50 pts.)

   Extend the data structure for Prolog clauses to represent the *cut* operator, `!`. Modify the search appropriately to implement `!`.