Project 1: straight line program interpreter

Summary:

Download the file

www.math.us.edu.pl/~pgladki/teaching/2016-2017/tk_lab1.zip

and modify the files maxarg.sml and interp.sml as described in Program 1 (pages 10-12) in the textbook Andrew W. Appel, *Modern Compiler Implementation in ML*, Cambridge University Press, 1998:

http://www.cs.princeton.edu/~appel/modern/ml/

Details:

- (1) Read Chapter 1 from the textbook Andrew W. Appel, *Modern Compiler Implementation in ML*, Cambridge University Press, 1998, in particular pages 7-12.
- (2) Download the files from the archive

www.math.us.edu.pl/~pgladki/teaching/2016-2017/tk_lab1.zip

and read them. Pay special attention to structures.

(3) Install Standard ML of New Jersey on your computer. In general, we shall be using version 110.67:

http://smlnj.org/dist/working/110.67/index.html

- (4) Start SML-a in the same directory where you unpacked the archive tk_lab1.zip.
- (5) Type **CM.make "sources.cm";** This should load and compile all sources. Then, type **Test.maxarg();** This should run the function**maxarg** on the test program; since at this point you haven't made any changes in your program, it should raise an exception.
- (6) Edit maxarg.sml until it works properly. In the same SML session type CM.make "sources.cm"; Note all the messages and fix any problems to appear. You may remain in the same SML session while debugging: just type CM.make "sources.cm"; again when you feel you corrected your program. This should save you some time.
- (7) Test your program with **Test.maxarg()**; (still in the same session).
- (8) If you still encounter some problems, keep debugging, compiling and re-running till it works.
- (9) Next, do the same for interp.sml with the function Test.interp();
- (10) Once you're done writing the code, you will send me the modified files via email. We will talk about your program during our next meeting on Monday, November 7th, 2016.