

CMSI 585
P R O G R A M M I N G L A N G U A G E S
Fall 2004

Assignment 1108

This assignment seeks to reinforce some concepts in Chapter 6 and get started with Chapter 7.

Not for Submission

1. Read Chapters 6 and 7 in Scott, including the asterisked (*) portions.
2. Try to sneak in some time for your paper. Feel free to show me drafts for feedback.

For Submission

Please submit all assignments on hardcopy. E-mail (even of PDFs) does not count. I know it seems anti-computer science to require this, but there are other forces at work here. Be prepared to talk through your work in class.

1. Write a small Java program that expressly relies on Java's explicit specification of expression evaluation order. Use unit tests to show correct behavior. Then:
 - a. Port this program to C, Perl, and ML. Modify the test cases as needed to illustrate correct behavior in each language. You will likely need to use explicit references in ML to produce equivalent semantics.
 - b. For each language, answer the three questions in Scott exercise 6.4.
2. Answer Scott exercise 6.7.
3. Do Scott exercise 6.17 in Perl first, then port it to C. Is it a direct port (i.e. nearly a 1-to-1 correspondence)? If not, then what changes need to be made to accommodate differences between the languages?
4. Do Scott exercise 6.24 in ML.
5. Answer Scott exercise 6.27.
6. Do Scott exercise 7.4.
7. Answer Scott exercise 7.9.