Computer Science 426 --- Fall 2013
Project 7 --- Completion of Code Generation (Top Down)

1. Details and What to Turn In: This project is due on Friday December 13th at 5pm. No late work will be accepted

2. The Project: At the end of project six you will be successfully generating code for any YASL program that consists only of:

cin statements
cout statements
Assignment statements
Swap statements

Your task for project 7 is simply to complete code generation (including all relevant error checking) for your YASL compiler. Your compiler should now handle all YASL program constructs.

See reverse side for information about grading the project.

A Note on Grading For Project #7

I will run test cases in the following order. You may wish to use this information to plan the order in which you handle various constructs. Each construct tested will include a valid program that makes use of that construct. Where appropriate I will also test invalid programs which attempt to make use of the construct. For example if I were testing the "cin" construct an invalid program would include an attempt to cin a variable of type boolean.

1) while loops (including nesting of while loops) no if statements or functions.

2) add if statements (including if-then-else and nested ifs), but still no functions.

3) support for one layer of functions (no nested functions) with no local variables, parameters or references to global variables (i.e. the functions have in them only calls to cin; and cout. Where the cout can only print string constants and endl's)

4) add use of global and local variables from within the functions, still no nested functions or parameters.

5) add use of value parameters, still no nested functions.

6) a recursive example, still no nested functions (should not have to "do" anything extra to handle recursion, it should just happen).

7) add use of reference parameters, still no nested functions.

8) add support for nested functions.

Each of (1) through (7) listed above will earn 13 points for a total of 91 points. (8) is worth the remaining 9 points.

Although I may regret this, I am willing to test your project against different test cases as you become ready. I will explain the ground rules for this when we get closer to the end of the semester.