The programming assignment project should demonstrate the ability to write a quality, full-fledged C++ program from scratch. The project should be something that is doable within three week's work — maybe about 15-25 hours of coding — but which demonstrates an ability to use all the important features of C++, especially data structures, algorithms and functions. It should accomplish some manageably small but useful task. Good examples might include playing tic-tac-toe, allowing two users play some board game against each other, or managing a large set of sports statistics in a set of files (all text-based, of course). But really, it can be anything you like, as long as it meets those specifications and gets approved. You should submit a project proposal by mid-semester so that your idea can get approved or you can get help picking a more suitable project. Please speak up if you need help generating ideas.

A few more suggestions (all of these can be done with text input/output; if you're confused about how, just ask. Using graphics is an option too, of course, but no requirement):

- Card games (Blackjack, Hearts, anything else you can think of)
- Reversi (also known as Othello)
- Gomoku (basically a larger version of tic-tac-toe)
- Connect Four
- Maxit (very simple — two players just move around a grid from space to space, alternating turns, and each space has a number which gets added to your score; Google it if you’re curious)
- Sudoku (is a logic-based, combinatorial number-placement puzzle)
- Hangman (there is a version of this game called ‘Evil Hangman’, google for it, it’s really fun). I can provide a word list for this game as well.
- Interactive manipulation of ‘ASCII-art’ (those vectors of string we talked about in class)
- Text based adventure games