

## Homework 2 (25 points)

cs3157 – Advanced Programming  
Prof. Shlomo Hershkop  
Dept of Computer Science  
Columbia University  
Spring 2006  
**Due:** Apr 16 11pm.

Objective:

1. Practice your c, html, and cgi skills
2. Have fun!

---

This is a very open ended project to allow you to get creative. Please feel free to improvise, as long as you cover the requirements.

You can take the Othello program you created in lab 5 and adopt it for web usage. It is a better design decision to create a new/separate cgi interface program and let it call functions from the Othello part.

- 1) When your script is run for the first time, if no arguments are passed, it will create a webpage with the starting board total score so far (should say black = 2, white = 2).  
Hint: depending on how you are passing the moves back to your cgi it's a matter of checking a specific CGI value.
- 2) At each move, a total should be presented somewhere on the page
- 3) If an illegal move has been inputted, should reprint the board, with a comment somewhere saying bad move using location x,y..
- 4) If you choose to operate over GET or POST, choice is yours, but you need to justify it in the README file.
- 5) There should be the ability of saving and loading games at any point. Saving should ask for a name to use for the saved game, and load should present a list of games.
- 6) This should be coded in c, but feel free to use CPP if you feel like it (and justify it in the README).
- 7) For winning games, you need to create a cool winning screen include the total scores for each....get creative
- 8) Don't forget to clean up memory references after yourself.
- 9) Reminder, your script is executed, generates some html, and shuts down...you will need to remember that when you code the logic
- 10) Use your friends or relatives as testing boards and get them to play it over the internet.
- 11) Extra Credit: feel free to adopt the computer side so that the user can choose an easy computer player (say random player) vs harder one. (Please do this once everything else is working).

Start early and Good Luck!!