CS 4500
HW2

HW2 assumes that you have successfully accomplished HW1. Therefore, we assume that you have a program that does a random walk and collects some information for that walk.

HW2 requires you to revise and extend your program. I want you to use graphics to show the user what is happening as the random walk touches various cells. This may require you to migrate to a different platform, IDE, or language; it may not. More on that below.

We will again assume that there are 100 cells in a 10 by 10 grid. Again, start in the lower left, and do a random walk until your marker gets to the upper right. Assume the same rules as before on how the random walk should proceed, and on what data you keep during a walk. If you forget, look back at the HW1 specification.

You have a great deal of latitude in deciding what graphical representation would be most enlightening to viewers. You will decide how long each step will last, how many pixels and what colors will represent the cells. Also, think creatively about what information you will show to the viewer, and how you will make that information visible. Be careful about screen geography. Part of your grade will be based on whether or not I think your graphics are helpful in understanding what is happening with this random walk simulation. When the simulation has run its course (either stopping at the upper right, or running out of steps), output to the screen the information you collect about the simulation.

This is an individual assignment. However, you will be working with a classmate. You can share code with your study partner, and no one else. You should walk through your code with your study partner, and each should try to learn from the other. If one of you knows graphics better than the other, share. Make sure to include your partner's name in your code's comments. You should also tell how your partner helped you with this assignment. Always give credit where credit is due.

Documentation is central. Each file you submit should have your name, the date, and other helpful information as necessary. Use "paragraphing" comments to break up code. Subprograms (such as functions and/or procedures) should include a comment telling the reader the purpose of the code and any assumptions inherent in the code. Any tricky parts of code should be commented to enhance human readers' understanding of your intent, and the details of the implementation.

For HW1, you had a choice of either making an executable file, or making a web simulation. This time your program MUST be a web-based program. With a web-based program there is no need for downloading files, linking, compiling, or any such complications. You will be submitting a text file telling me your URL, and an RTF file with your source code.

Again, your code has to run on the PC in our classroom. Your source code should mention which browsers (among those available on the PC at the front of our classroom) you have tested with your program. Make sure to include instructions so that I can EASILY run your code and see your graphics. Your underlying random walk program has to work, and your graphics have to work in order to receive full credit.

Be sure to get clarifications from the customer (your instructor…, me…) when necessary.

Keith