Final Project Proposal

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CS 172-2

CS Final Project

Sudoku is a popular puzzle among elderly and youth alike today. It consists of a 9x9 grid with numbers seemingly randomly placed in the grid, never entirely filled in. The goal of the game is to fill in the blank spaces using deductive reasoning. I believe there is an algorithmic solution to Sudoku which I will design in my final project.

I will approach this problem by first attempting Sudoku games of my own, and then reading literature on solving techniques. I will also research various computer-based algorithms to solve logic puzzles. After researching, I will design an object-oriented program around solving the Sudoku game. I might make a Sudoku game class a subclass of a larger Game class so that if I wanted to add more puzzles that my program could solve, I could do that. I will use File i/o to manage game input and outputs.

I anticipate that the initial algorithm design will be challenging, I also anticipate that I will have to design a good way to make the file i/o create a user friendly interaction which is both readable and efficient for the computer to use. I will also have to decide whether I will solve the puzzles by iteration and display solution steps, or just print out a final solution all at once.