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CS 1300 Project 1

The number game

For my game I wrote the number guessing game but with more features… Instead of you just guessing the computers number, the computer will also try and guess your number! I had fun thinking of a logical algorithm for the guessing mechanism.

This is how the game works. You give the computer your user name, a lower bound, and an upper bound. The program then asks you to give it a number within the range you have selected. The computer then tries to guess the number that you entered, with every guess it tries it gets the feedback of too high or too low. With that information it is able to figure out your number pretty quickly. The number of guesses that it takes to find your number is the computer’s ‘score’ for that round. The computer then randomly chooses a number within the range that you selected at the beginning of the round. Then you try and guess the number. If your score is lower than the computers you ‘win’ the round. The game then asks if you would like keep playing.

I achieve this ‘flow’ by creating a class for the user of the game, and a class for the game itself. This was my first time using classes and I totally see the value in them after this project.

The part of this program that I find interesting is that trying to determine a number with given feedback isn’t ‘absolutely’ rationale. What I mean by that is, well this might get a little wordy but stick with me, in the range of 1 - 100 a rational guess would be 50 because it is exactly in the middle of the range and it ‘maximizes’ the value of your feedback, BUT, 50 isn’t necessarily your best bet you could arbitrarily guess 23 and win the game in one guess. This makes it a funny little game! The computer has an objective and absolutely rational mechanism to guess the number, and on paper, a lot of people would rightfully think that he computer would win this game every time because of that, but that’s the beautiful part of the game, the most rational thinker doesn’t necessarily dominate this game. The game aims to pit an irrational, but extremely smart being (human) versus an extremely powerful and rational being (computer).

I have a theory that as the range gets bigger the computer will win by a greater and greater amount, but that’s a whole nother project. I hope the above paragraph made sense, and I hope you don’t take points off for the game not being that fun! I was kind of going for a different angle :).