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CS 202

Project 2

Project 2 involved building on our previous projects, namely, project 1a and project 1b. The main difference this time was that we needed to modify the code to use structs and add a little bit of functionality as well.

The purpose of the program is to simulate the operation of a slot machine. In addition to the requirements inherited from project 1b, we were required to provide a simulation similar to pulling a lever and seeing the reels spin. We were also required to use structs. The structs that I used in my program were two structs of the same data type. I read in the symbols file into a struct containing a char array for the symbol, an int for the bonus value, and a bool was also required to check the existence of a bonus value. I decided to used this same struct type to contain the configuration for the slot machine. In my code I used “ace” to contain the symbol data and “delica” to contain the configuration.

Converting the existing functions to use a struct was fairly easy. In most cases I only had to change the lines that used the 3-d array from the past project. However, One function did require a bit more modification. This was the function used to read in an existing configuration from a file. I was able to do it by adding in a few more loops and cross-referencing values with the symbol struct. Furthermore, I also cleaned up the code more to make it more sleek and easier to read.

For the simulation of spinning reels, I designed a function that would take in the configuration array “delica”. I would throw it into a loop that would produce a random number for every reel. These random numbers would link the corresponding delica elements and they would be printed out to the console. In order to acquire the bonus value, a variable was used to add the value of each element as it was selected from the loop. After the loop exited this variable would containt the combined total of all the random symbol bonus values.