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CS202

Project 3 Documentation

Project 3 required the creation of a program that would simulate some of a slot machine's basic behavior. This has been done in the past, but this time we were required to use only pointers when manipulating data with out program. This required either rewriting the functions from the past projects to work exclusively with pointers or creating an entirely new program from scratch.

I decided to start fresh and create a new program from scratch. This was done reduce the complexity of project to a more manageable level. I used the basic principles of the previous functions to create the new ones that relied on pointers. For instance the string copy function was almost identical to the previous one except it is longer by maybe 2 or 3 short lines of code. Once the string copy function was transformed, I set about to modifying the rest of the functions. A new function was required to read in the symbols file after asking for the file name. This was accomplished by creating a char pointer that would hold the file name and be used when using the file input and output stream. The next function that required modification was the config generation function. This one was a little bit trickier as it required two pointers for the reel struct as well as a pointer for the previously inputted symbol struct. A series of two loops was used to go through each stop on every reel and input a randomly selected element from the symbols struct into the reel struct. Printing the config also required two loops to print out each member of each reel. At the end of these functions the pointers that were being manipulated were set back to their home address so that they could be ready whenever another function was called that required them as parameters. I chose to implement this reset within the menu system for

increased clarity and assurance. The final function that was required was the user chosen reel element display function. This function asks the user for a stop and reel number and then outputs the data of that location, which is stored in the reel array, out to the screen.

Overall the changes I would make to this project in the future would be to reduce to lines of code in the program. As it stands the program comes in at about 250 lines of code with comments. Although I would try not to reduce at the cost of readability.