Andrew Blandino

CS 202

Project 8

Documentation

This project maintains the same functionality of Project 6, but with the use of classes. The program loads a new machine, previous machine from file, spins the reels of a machine, and lists the symbols in use for the operation. The program deviates from Project 6 in that only 3, 5, or 7 reels may be selected and the number of symbols per reel is defaulted to 10.

This program features the use of classes, and so the design of the program revolves around that aspect. The header file, symbol.h, contains the specification for the symbol and reel classes that are used for the program operations. The private data members for the symbol class are the char pointer s\_name, integer value, and Boolean bonus; with relevant functions for setting and getting those private data members. The private data members for the reel class are the symbol pointer sym\_ptr, integer payline, and integer num\_reel\_sym. The reel class has different public member functions to carry out the functionality in the main cpp file. The reel class has a setreel member function that is responsible for setting the symbol data member on the reel. The function can work to load a new machine or to load a previous machine from file. This is accomplished by the Boolean ‘nload’, with true for new machine, and false for a previous machine. In the case of a previous machine, two integer values must also be provided, row and col. The spinreel function carries out the spinning of the reels in the main.cpp file. The function will generate a random payline integer for the current reel, and then loop to display the paylines for that individual reel. The paylines for each reel are displayed horizontally as a result of this function implementation. The last function of the reel class, printdiagonal, achieves the same effect of spinreel, but with the goal of printing diagonal paylines for each reel. In order to use this function, one must submit an integer ‘offset’ as a parameter, to display the offset symbol of the current reel. By running this function inside a loop, while incrementing the offset integer and the reel index, the diagonal payline is displayed. To display the other payline, a similar loop is performed but with the reel index starting at (num\_reel\_sym – 1), and that index decrementing inside of the loop. The remaining functions for printing the symbol and reel classes are simple enough, with the distinction that the reel class print function requires an integer to determine which symbol on the reel is to be printed.

If I had more time on this program I would polish the code in my implementation for my classes. Some of the code I have written have some noticeable similarities, such as the printdiagonal and spinreel member functions of the reel class, and could possibly be combined into one member function. Lastly, I would try to combine the symbolList class into the project to get a better understanding of classes, as well as some awesome extra credit.