

### Project 6 Documentation

Project 6 for this week required once again to modify the slot machine simulation program. The program requirements specified that that classes were to be used along with dynamic memory. Additionally, this week separate classes for the symbols and reels were required, and the spinning functionality from project 2 was supposed to be implemented as well.

The other big change for this project was that bracket notation was once again allowed. This simplified much of the coding and design of the new parts program. I decided to leave the previous parts of the program intact since they would not affect the rest of the program's functionality. So the base of the program from project 5 using incremental pointers was recycled for the first half of this project since it was already written. However, for the second half of the project the bracket notation allowed from much simpler functions and less loops. Most of the functions for interacting with the reel were put into the reel class. Only the functions requiring operations on multiple reels and multiple symbols were put into the main driver. For the reel class a default constructor, copy constructor, and a destructor were the first items to be made. The random configuration generator was implemented within the class to allow for easier manipulation of its data members. Some of the functionality that allows the user to pick a specific stop and reel and output its data was also moved into the reel class. Specifically, allowing the user to output a specific stop number from within the reel. The function that asks the user for a reel and stop number was implemented into the main driver in order to allow for choosing between multiple reels. The function for spinning the reels was implemented with the reel class. The function randomly select a stop and output it's symbol to the screen. This function

was run 3 times in the main driver for each of the reels. Finally the function would also add up the values of the each of the stop numbers chosen and output the total as well.

Overall the use of two classes and bracket notation has done wonders to streamline the code and make it much more readable and organized. Ultimately, I did not encounter any major problems with coding this particular assignment.