**Project 2 Documentation**

The purpose of my program was to be able to allow the user to select options through a menu function, and allow the user to navigate himself through the program on their own accord, selection options in which they would like to execute, rather than forcing the user through the program itself. With the program created, the user would be allowed to sort a struct list by price of a rental car, write to an input and output file, as well as allow them to rent a car and mark the car of their choice as rented out, similar to a website function.

From what I learned from the last programming assignment, I tried to compress my main function as much as I possible could. Aside from the switch statement within my main function, each menu option runs from a separate function created for each menu option.

The biggest challenge for this project was the swap function, which was supposed to swap around the car lines. There were multiple strategies I tried in order for it to work. It was confusing at first passing structs through the function call, I didn’t know whether or not to include the struct or pass it, for example in my function, as just “rental x”. I tried passing by reference and with pointers and nothing worked until the TA told me to only use pass by reference and no pointers at all with the function. Interpreting exactly what to do for each function was also a little challenging. Coming from CS 135, I am used to clear structures of how to write the code, but in this class you are given more freedom and only given what should be occurring within your code. Sometimes, I am unsure if this is what the project asked for, or if it needed to be done or passed through in a different fashion.