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CS202

Project 2 Documentation

The code for this project is all contained inside the cpp file "proj2.cpp" and accomplishes all of the functionalities outlined by the project. After running the program the user is prompted with a user menu stating the different options and their respective numbers. The user must then enter a number to proceed. If any number not in the range 1-7 is entered, the user will be asked for another number from 1 to 7. Entering 7 will exit the program. Before the user can use any of the functionalities, data has to be read in from a file. Entering 1 will prompt the user for a filename and read in car data from that file. If data has not been read from a file yet, the program will not allow the user to use any of the other functionalities. Entering 2 will print the cars to the terminal in the specified format. Entering the number 3 will prompt the user for a filename and output the current array of RentalCars in the same format as the input file. Entering 4 will sort the array of cars by ascending price. Entering 5 will prompt the user for the number for the number of days they would like to rent a car, and then print out the available cars by ascending price along with their total price for the renting period. The array of cars is not altered with this option. I wish that I could have found some way to use the sort function I had already written for option 4, but maintaining the order of the array restricted me from doing that in any kind of straightforward. My solution for this was to create an int array where each int represented an index of the car array. I then sorted the int array. I repurposed my RentalCar sorting algorithm except to sort an int array representing cars inside my option 5 function, while maybe not as clean and modular. If I were to change anything, it would be to make this section of my code

cleaner. The final option is number 6, which asks the user which car they would like to enter. After entering the index of their desired car, the function will either tell them the car is not available or ask them how many days they would like to rent the car if it is. The car's available member is then marked as not available, and the total price is printed to the user.