

Logan Leavitt

CS 202.1103

Project 3 Documentation

The code for this project is split into two source files, *proj3.cpp* and *RentalCar.cpp*, as well as four header files, *constants.h*, *proj3.h*, *RentalAgency.h*, and *RentalCar.h*. The file *proj3.cpp* contains the main function and many other the other functions utilized by the main function. *RentalCar.cpp* contains the definitions of the member functions of the class RentalCar. Because some of my RentalCar functions required the string copy function, I decided to create *proj3.h* which contains the prototypes of the required string functions. I then wrote the definitions for these functions in *proj3.cpp*. The file *constants.h*, as the name implies, contains the values of some necessary constants needed throughout the program. *RentalAgency.h* contains the declaration of the RentalAgency struct and *RentalCar.h* contains the the declaration of the RentalCar class. *RentalCar.cpp* and *proj3.cpp* are the only files that need to be compiled. As far as functionality goes, my program achieves all the required functionality. Data can be read in from a file using option 1. Attempting to use any of the other options (besides the exit option) before reading in from a file will result with a warning message. Option 2 prints out all data to the terminal. Option 3 allows the user to estimate the rental cost for a single car. Option 4 finds the most expensive car and prints it to the terminal. Option 5 prints out the available cars to an output file specified by the user. Finally, option 6 lets the user exit the program. In addition to these functionalities, my RentalCar class also contains all the required functionalities. However, my get methods for the *m_make* and *m_models* do not actually return a char pointer because I was not sure how to implement this without giving the person using the class direct access to

modify the strings. So, those get functions take a char pointer which should point to an array, and then the m_make or m_model strings are copied into that char pointer. All the other getters and setters work as standard.