The purpose of this program is to improve the functionality of our last program by adding three agencies, each with their own inventory of five cars. This takes the form as an array of structs, with an array of class objects within those arrays. The struct array has a size of three that represents the three agencies, and the class object array has a size of five which represents the five cars each agency has in their inventory. This data structure exhibits encapsulation and data hiding, which seemed to be extremely complex at first, but was understandable after working with them directly.

My design followed the instruction pdf provided to us directly, as it can perform functions such as: reading from an input file; printing information from an input file to the terminal; estimating car cost based on user input; finding the most expensive car from all three agencies; printing to an output file. These options took careful consideration in order to ensure that they worked properly and how the instructions want them to. My hardest function seemed to be reading in from the file and using temporary valuables to hold things such as the zip code, because we cannot use ifstream to read directly into an integer array. I used a method I learned in CS 135 to read in a whole integer instead, then break it down by digit, storing it into the array. The biggest and all-encompassing problem I faced with this project was time. I am still learning what kind of programmer I am, as one day I sat for hours upon hours and got nothing done. I finally decided to call it quits and work the next day. The next day, I found it easier to think and code properly, and realized I am probably not the kind of person to sit for hours straight but will find it more beneficial to take breaks when I work on a coding assignment such as this one.