Project 6 Documentation

Mackenzie Zappe

Lab Section 1105

The purpose of the program is to create an inherited class system that is compatible with a provided main file. An additional purpose to the program is to test polymorphism concepts such as virtual methods. The class methods should then output specific debugging statements when called in the main file.

In order to ensure the functionality of my program, I built from the ground up. This means starting with the vehicle class. I made sure to write the constructors first and test their abilities. I wanted to ensure that the initializer lists were assigning the correct values to be later manipulated. I had an issue initializing the location array inside of the initializer lists. I ended up initializing the location array in the brackets of the constructors instead. I do not know if this is proper form or maybe just a different way to go about it. I am curious if the initializer process would have worked and I possibly wasn’t implementing it correctly. Next I implemented the rest of the vehicle methods and tested them against the main file. After this I copied the process with the Car class and its constructors and then the methods. I ran into a little bit of strife in initializing the vin and location because those were a part of the vehicle class. I fixed this problem by manually passing the vehicle parameterized constructors. This is because a car is a subclass of the vehicle and it works like that. After this I did not have any issues with the remaining car functions. I then made the cmake file and decided to assign each class to their own folder in the file structure. This made it easy to link them together manually. I had to change the include statements in the main file to match the file paths of my file structure.

One of the only problems I had with this assignment was calling the base class constructors inside the derived class constructors. I tried implementing the constructors inside the body of the constructor and not in the initializer list portion. I learned this after the review lecture and quickly changed it in my program.

One thing I would like to explore if I had more time was the fact that in the Inheritance sample posted by Christos it had mentioned to declare the constructors in the protected part of the class; however, when I tried to put it in any other place than public there was an error. Because there was no specific note about it in the project instructions, I decided to leave it as is.