Honors C++ Progress Report

**Project**

For this Honors Project, I am creating a pizza ordering program. This program will include a header file with a base class (pizza) and a derived class (custom). The pizza class includes the size and the price of the pizza based on the chosen size. The user will also be able to make a note about the pizza order. There will also be (at least) one custom class\*, that allows a user to input two toppings, and extra toppings for a charge.

In the main file, the user will be able to order however many pizzas desired, enter the size, and choose two toppings. They will also be able to enter a note for the pizza if desired. There will be a display of the info for each pizza entered. The main file also includes a receipt, ordering, and menu display function. Finally, once all entries have been submitted, the total price will be shown, a thank you message, and the wait time for the pizza.

**Progress**

Now the program is fully functional! I made the Pizza class, which currently includes a char size symbol (Like ‘s’ or ‘S’ to represent small), the actual size that will be printed, the total price of that size of pizza, and a note for the pizza order. I also started working on the custom class, which includes the 2 toppings and the price of extra toppings. I also made the basics main file to test the pizza class. All the current components (the main function and the receipt printing function) of the main file are solely to test the pizza class and will be altered later to fit the custom class.

One of the points of troubleshooting was in the classes themselves. I was using a few wrong logical errors which took hours to detect. I eventually was able to get the derived class to get the values from the base class and show the proper values within itself. Another point of troubleshooting was the note. I did not catch this error initially, but I could only enter a string with no spaces. After a bit of research, I found that getline(cin, note) was the best way to enter a sentence for a note. It took me even longer to find out that this needed to be preceded by a cin.ignore() for it to function correctly. Lastly, I had some trial and error with the total price. I found a way that works by creating a set function for the total price, but there is probably a more efficient way to do it.

**Conclusion**

I can honestly say I learned more in the past few weeks of frustration than in the whole year combined. I learned how to problem solve and how to better find menacing logical errors that are not easily detected. There are a few ways this program could be better. A GUI would make the program look better and be more user-friendly. While the program is fully functional, there are some areas that could probably be polished up. I think for having started coding not even a year, I made good use of functions and found workarounds for issues with my limited knowledge.