Assignment: Lab 4
Student: Kevin Paganini

Date: 4/5/2022

Professor: Dr. Hasker

What did you learn from doing this lab?

One thing I learned to do in this lab was work with .h and .cpp files. One thing I do like is that you can separate documentation from the main chunk of code. It gives an easy place to find everything you need to know. I learned about how header files do method declarations while the .cpp files provide the implementation of it. Another thing I learned was the semantics of how the files get compiled and how you need to include "include pool.h" in the pool.cpp file for everything to work correctly. Overall, the two main takeaways I have is classes, how to use classes and specifically how pointers work.

What did you find challenging about the lab?

One thing that was hard for me this lab was having my output match esubmit's output. The first time I implemented it I didn't know how to access the passed in pools methods (pointers), and had the list printing out in incorrect order. After figuring out how to use the passed in pool's method, I had the correct ordering, however I was printing out matches too often. I overcomplicated the problem and started using sets to try and eliminate copies being printed out. After discussing with Dr. Hasker, I realized that making a separate method would allow me to short circuit the search and stop once a match was found.

What would you recommend changing if this lab is reused in future years?

One thing I would recommend is adding the condition of not allowing repeats to be printed. This would force students to not only use arrays but also get practice in using sets which are a very useful data structure. Not only would this make the lab a little harder, but it would also make requirements easier to understand. Another thing that would be a nice addition is to make overloaded constructors. This is not something we have done yet, but could be worth while to learn.