**C++ Unit Testing**

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CS 405 Secure Coding

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**Unit Testing Console Window**

**Text

Description automatically generated**

**Summery**

The process of creating unit testing in C++ was natural to me as it is kind of like JUnit testing in Java. Because of this, I did not come across many issues at all. The only problems that I had in this assignment was again interpreting the //TODO statements to make sure I knew what I was doing. As soon as I got a little bit of an understanding about what each test did, it was easy to make them run properly. I started this assignment by doing the first two unit tests as they were like each other, and then I moved along the rest of the tests in a similar fashion. The only test that gave me a little trouble was the resizing tests, but this was because I didn’t properly read the information on the functions that we were testing.

One thing that I did that might not be necessary, albeit very good practice, was adding expect statements where you wouldn’t have to check them. For example, after adding entries, I checked to make sure that the total number of expected entries was correct. I also was not sure about what exception would be thrown when resizing the collection to a negative number, so I checked for all throws. When making this decision, I made sure to take my time to see if I could figure it out but the only information, I could find was that it was an unknown exception, so I checked for all throws. If this would be for a professional project, I would consider taking more time to figure out the exact throw, but for the purposes of this assignment, I think that it satisfies the need for a negative test.