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Professor Alesso  
CS-499

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## Enhancement Two

### **1. Briefly describe the artifact. What is it? When was it created?**

The artifact I chose to work on for this enhancement was the HashTable.cpp file that was part of an assignment in my Data Structures and Algorithms class (CS-260). I took this class back in 2022 and back then this was my first time seeing something of this nature. A hash table is a data structure that implements an associative array which is a structure that is used to map keys to values for data retrieval, deletion and insertion purposes.

### **2. Justify the inclusion of the artifact in your ePortfolio. Why did you select this item? What specific components of the artifact showcase your skills and abilities in algorithms and data structure? How was the artifact improved?**

I chose to include this artifact in my e portfolio because it was one of the larger files I worked on throughout my time at SNHU, a lot of my other projects were multiple files or multiple classes broken down, but this project was my first experience with a large program. The main reason I chose this artifact was because it related very heavily to the data structures and algorithms curriculum and was a great way to test my capabilities in other languages. When I first originally started developing this in python it was error filled and unusable but with time and research, I was able to mitigate my issues and fully showcase my understanding of switching between languages as well as developing with them.

### **3. Did you meet the course outcomes you planned to meet with this enhancement in Module One? Do you have any updates to your outcome-coverage plans?**

Yes, I met the course outcomes that I planned for myself in module one. The course outcomes that were addressed strongly were outcome 3 and 4. During the development of this enhancement I used best practices in development such as creating pseudocode for portions of the project to help me break down issues and find what was holding me back the most. Switching languages is also a good use of demonstrating the ability to use well-founded and innovative techniques in order to provide a computer solution.

**4. Reflect on the process of enhancing and modifying the artifact. What did you learn as you were creating it and improving it? What challenges did you face?**

While reflecting on the process of enhancing this artifact I realized that things are not always going to go according to plan but no matter how tough things get taking a step back and rethinking things or looking at it through a different lense will make a massive difference in both skill level and readability. This was an assignment I hadn't worked on in a very long time so going back and trying to figure out how I wanted to go about transferring this to another language took a little bit more effort than I originally imagined. The syntax and debugging process was much harder this time around than my first enhancement.