This artifact has to do with the course that I took known as CS 260: Data Structures and Algorithms. This artifact has to with my fundamental understanding of Data Structures and Algorithms having to do more specifically with Doubly Linked Lists.

This data structure has always intrigued me so, I thought why not create a doubly linked list interface within the command prompt to demonstrate the creation of a list, addition & deletion of nodes within the list along with manipulation of the data within the nodes itself. These are all options a user of the application can go through. It was created today as of writing this narrative on February 8th, 2025. The entire artifact showcases my skills and abilities in algorithms and data structures. One could argue the creation of a doubly linked list could be the “base” artifact and the artifact was improved by creating a user interface and options a user could use to manipulate the doubly linked list.

According to the following course outcomes of:

1. Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision-making in the field of computer science.
2. Design, develop, and deliver professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts.
3. Design and evaluate computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution while managing the trade-offs involved in design choices.
4. Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions that deliver value and accomplish industry-specific goals.

I believe that I have hit the nail on the head so to speak for these outcomes.

I believe the most important thing I learned had to do with figuring out how I was going to layout the user interface within the command prompt for the user that is intuitive and easy to understand while still being appealing. I ended up with some neat little borders for decoration. Probably the most challenging part was attempting to find some course work related to this course to refresh some of my knowledge, however after doing a little research I was easily able to jump back into things without a problem. Especially when the strong intrigue of doubly linked lists came flooding back to my brain through this whole project when I couldn’t find any code related coursework for this artifact.