The artifact I chose is a collection of programs in CS260 that include different data structures and algorithms. The data structures include a hash table, a vector list, a linked list, and a binary search tree. The code for each is HashTable.cpp, LinkedList.cpp, MYBinarySearchTree.cpp, and VectorSort.cpp. Also included is the header file for CSVparser.cpp and some CSV files used to test and view operation of these programs. I enhanced these files to be called from a main program Data\_Structures\_and\_Algorithms\_Main.cpp. I did this so that each program can be run from a menu selection and easily can see results of each program. I enhanced the binarysearchtree.cpp file to search by any string to search by name or fund. I included the artifacts to demonstrate the ability to build and use data structures and sort algorithms in a meaningful way. I also wanted to showcase skills of opening and closing files and reading data from the files. I also wanted to showcase knowledge of using MDS algorithm for hashing.

The course objectives I planned to meet are: Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science; Design, develop, and deliver professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts; 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. The artifact enhancement meets these objectives.

The process of enhancing the artifact proved to be more challenging than anticipated. The files had several functions that had same name which I had to change. The compiler had to have some configurations that I could not remember in order to get the CSVparser.cpp file to compile and some idiosyncrasies that took hours to resolve to get this code to work in one file.