CS 499 Milestone Four: Enhancement Three

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The artifact included for enhancement three is a congregation of multiple python programs. The artifact was originally created in August during week seven of the CS 340 course. It is a collection of six different python programs each used for a different function to manage the MongoDB collection of stocks. The programs work within an Ubuntu environment with MongoDB initiated and the stocks.json file loaded into the MongoDB database as a collection. Once the initial setup environment is created, each of the six python programs can be called. The six programs can be separated into two groups, manipulation and retrieval. Within the manipulation group, there is a program for each insert, update and delete feature. Within the retrieval group, there is a program for each number, string, and aggregation query.

This artifact showcases my understanding of database management through my utilization of the MongoDB environment. Additionally, this artifact also displays my understanding of using a programming language like Python to code programs to manage my MongoDB collection. This usage of pymongo incorporates a mixture of skills demonstrating my knowledge of the MongoDB query/manipulation commands and how it works within my python programs.

Regarding my source objectives I laid out in Module One, I have altered my enhancement plans and switched to a different artifact. I have switched my artifact from the AdvancedProgramming program with RESTful API to the congregation of the six python programs into a consolidated program with menu options for my six different functions. Part of this reason was because I had trouble getting the RESTful API to work within my own machine outside of the Codio environment. So my updated outcome coverage plans include creating a python program that provides a menu system to call upon each of the consolidated features from my six python programs.

My process of enhancing mainly involved getting familiar with how my previously created functions within my pymongo programs behaved within the MongoDB environment. While enhancing my artifact, I noticed that several of my queries were faulty with the output of my results. Specifically for my aggregate query, my result was sorted by the industry groupings instead of sorting by the sum of the shares outstanding created by my aggregate query. So I had to tweak a couple of my output results so the query outputs made more sense logically. Additionally, I had to implement a menu system which I separated into the groupings of manipulation and retrieval. I also created three options for each of the three functions for each of my two groups