For the database portion I selected to continue to work with the data from CS260 – Data Structures and Algorithms. The original purpose to the artifact was the coding of data structures and algorithms, the data included was simply to give us fields to work with. At this point, I have combined four applications into one and reconfigured them so a different process is used for each search criteria. Now, I look to do more with the data.

One of the facets of milestone three that I enjoyed was looking at different ways to complete a task. It was not about finding the best method but about exploring different methods. What I have done at this stage is to explore yet another way to search the same data set, only this time I am exploring storage too. What I had from CS260 was a csv file. What I have done with this improvement was to move the data from the csv file to a MySQL database. I wrote queries to accomplish all the same searches that were utilized in the previous enhancements.

I wanted to get as much as I could out of this project, so I utilized a couple of methods. I created my database and first table from the command prompt. The CLI is not very forgiving. After several minor syntax errors in trying to get the all the columns listed, I opted to start the table with a few columns and then add to it. This worked well.

A screenshot of a computer

Description automatically generatedA screenshot of a cell phone

Description automatically generated

I then tried to import the data and I kept getting errors reading the data. A screen shot of a social media post

Description automatically generated

At this point I moved to MySQL Workbench which was much more forgiving. Each time there was an error reading the data, mostly because one file would have a field with a lot more data than the rest. It also didn’t like blanks in one column but had no problem with them in another column of the same data type. In MySQL Workbench, I would run the import command and get a very clear error pointing me to the line that needed to be fixed. I could then make a fix either in the csv file or in the table details and rerun without having to retype or arrow up to all the import command lines. Once the file successfully imported, I went on to write queries to match each search criteria I had used in the C++ application.

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated