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CS 499

Artifact Three Databases

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The artifact that I have chosen to enhance for the database category is a project from my previous class, CS 300. Previously this assignment imported a flat CSV file with a list of course information. This list is then able to be loaded, searched, and sorted alphabetically. I have chosen to replace the flat CSV file with a SQ lite database. The course information is now stored in the database and pulled from there rather than a flat file.

I selected this item because I felt that there was great room for improvement. When pulling from a flat file, it uses a single table to store the data, making it far less flexible. A database uses multiple tables and relationships to store data. Not only does this make the data much more flexible, it also has the ability to store a much larger amount of data. This is great for a school with many course offerings that need to be organized in different categories. In addition to this, databases allow access to many people at once with a quick response time. For example, many students and faculty can retrieve this information at the same time. That is important as this contains very high traffic data. Using the database, I was able to load the courses in .001 seconds. Using the csv file, it took .015 seconds.

I was able to meet all of the course objectives that I had planned for this enhancement. My project now successfully pulls data from the database rather than a csv file.

Databases have always been something that I have struggled with throughout my time in the computer science program. It was a great learning experience for me to be able to implement a database from start to finish and actually have it fully functioning. This was also my first time working with SQ lite which will be great to add to my resume.