CSCE 4523 Database Management Systems

Homework 4

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Objectives

The objective of our fourth homework assignment in Database Management was to really take the skills we've learned in previous assignments and combining them together to work in harmony. The basic database structures and methods that we worked on in the first homework assignment was used for a lot of the front end, though obviously there were a lot of changes. And then the SQL database and queries that we've learned from homeworks 2 and 3 were used for the back end of this project. So this homework assignment honestly was sort of a review / adaptation of what we have learned before.

Approach

To begin this assignment, Tyler and I decided to do this homework in Python since it's a straightforward language and is what we've been using in other classes as well recently. From there we took the answers and tables we used in homework 3 and simply copied and pasted it with some syntax adjustments into our hw3_soln.sh file. From there working on the rest was pretty straightforward, it was really just figuring out how to implement the SQL queries that we've seen in the past to be communicated in Python. It was honestly a bit difficult at first for us since getting used to coding whole functions that run SQL queries wasn't immediately intuitive. But soon enough, it clicked, and we were able to finish the five complex functions needed for this assignment as well as the basic quit method. After that we were pretty much done, all that was left was following the laid-out instructions for the typescript and we were all set.

Results

There weren't too many large bugs or errors during this assignment, but we did have a couple of hang-ups. For starters, even though the instructions were pretty simple, it took a bit longer that it should have to figure out all the files and permission needed for this program to actually run. This isn't really a large problem, but it was something that took some time. Also, though it works now, figuring out how to identify and assign the correct book copy ID was a bit of a bug at first, but we soon got through it. There aren't any major design flaws that we could think of that just didn't work well or just wasn't a good idea though this is probably because the overall structure of this homework assignment was give to us from the start. For splitting up the work: Timothy set up all the files and

connections of the database, lot of the first couple of functions, and then the report. And Tyler did the work of the remaining functions and did a lot of the testing for the program as well as completed the typescript.

Typescript

The Typescript will be uploaded separately.