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**Enhancement Three**

I've decided to improve a MySQL database from the DAD-220 class as the artifact. Content from a database had to be added, updated, deleted, and pulled for this undertaking. SQL was used for that, and the use of the command line was needed to carry out the necessary operations. I decided to improve this project by utilizing Python to provide a graphical user interface and SQLite to get the information. I had little to no understanding of how Python and SQLite interacted when I began this project, so it was enjoyable and gratifying. It wasn't easy at first, as I had to spend a lot of time researching how to utilize SQLite in Python, but eventually, I got the hang of it and had the ability to add practically every function I wanted. While working on this project, I ran into a few problems. I began by making an extremely straightforward software that exported the list of items to a label for the person using it to see. Whenever the users launched the application or made modifications to the database, they needed to click a button to modify the items. It's not optimal, as I soon found out; an ongoing view of the database's contents would be far more ideal. In order to make it easier for users to choose and update elements in their program, I created a treeview functionality. There were a number of challenges with constructing this treeview that functioned with SQL data, including proper updates and information transmission across the tree and database. I opted to have the database be updated regularly after performing changes. I also changed it so that when the user doubles-clicks a choice in the treeview, it automatically generates the textboxes, allowing the users to perform quick adjustments.

With this assignment, I met a number of programming aims, including "prove the capacity to use legitimate and creative methods, skills, and resources in computational practices for the objective of executing technological solutions that deliver value and achieve industry-specific goals." I was enabled to accomplish this by developing novel functionalities such as live-view database editing. I also experienced the following outcome: Establish an attitude of security that predicts hostile exploits in software design and structure to reveal possible weaknesses, mitigate weaknesses in design, and protect data and resources' security and confidentiality. Having a secure application is critical, particularly when dealing with information. A firm may have consumer data it does not want to be stolen. To increase the security of my present scheme, I've added validation of errors and mechanisms to prevent SQL injection.

In general, this served as a great educational opportunity for me, and it was exciting to see the improvements that were attainable with this assignment. I've discovered a lot regarding SQLite and how to create simple Python GUIs in the course of my research. In general, I still have some improvement to complete on the application's GUI and performance, which may include incorporating oriented toward objects techniques. Instead of using global variables like I did, I believe subclasses and OOP would prove much more effective as well as simpler to understand.