Project 2
Home Inventory Database Application

Objectives

- Build upon the Home Inventory application you created in Project 1
- Demonstrate your understanding of fundamental relational database concepts
- Design a suitable database table structure to hold application data
- Initialize the database via SQL scripts
- Persist application data to an SQL database
- Read application data from an SQL database
- Search the database for user-requested data

Basic Requirements

- Adopt and expand upon work completed in Project 1
- Use pipenv to manage project library dependencies and to execute project in a virtual environment
- Modify the build.sh bash script as required to automate complex commands
- Use database scripts to automatically drop and recreate the database
- Use the Python SQL connector to interact with a MySQL database via Python code
- Use two tables in the database to store home inventory data.
    - Inventories table [id | Name | Description | Date]
    - Items table [id | fk(Inventories.id) | Item | Count]
- There is a one-to-many relationship between the Inventories table and the Items table. The relationship is established by the foreign key column in the Items table.

Project Specification

Write a Python console application that allows you to enter, search, display, and save home inventory data. Provide a text-based menu that allows a user to:

- Create a new inventory
- Save inventory to database
- Export inventory to file
- Add items to active inventory
- Search inventory
- Display inventory
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Hints

You must have MySQL installed and the MySQL client configured to execute SQL commands from the command line.
MAMP [https://mamp.info] gives you all you need regarding MySQL and a graphical user interface called phpMyAdmin to interact with the database.

Study the sql_test_project https://github.com/pulpfreepress/it-566-computer-scripting/tree/main/python/sql_test_project to see how to use scripts to quickly drop and recreate the database. You will need to modify the database scripts to achieve a suitable table structure for the home inventory database structure as described above. You can also review this YouTube video on how the create database scripts. https://youtu.be/VAscNPs3nIM