

Jonathan Tan

ndr888

CS3743

Final Report:

Description:

This program provides basic functionality to populate, edit, and generate some reports for a database. This database is inspired by the inventory system of looter shooter games. The program is coded in Java using IntelliJ, a local SQLite server is used to handle the database side of things.

This program will create the database and tables by default, and if requested can format and create the empty tables again. The program's functionality is located in different menus.

The main menu allows the user to traverse to other sub-menus. Apart from that, it also allows the user to reset the tables and print all the contents of the tables.

The first sub-menu is generally for insert operations. The user will be able to add all the weapon types, armor types, account, character. The program will populate the parent class tables. Apart from that, the user can also add the weapons and armors to a character's vault or inventory from this sub-menu.

The update sub-menu allows the user to modify values in certain tables. To be specific, this program allows the user to update the password of an account, update the attack modifier for all Arms, update the speed modifier for Legs that meet certain criteria, increase damage of a certain weapon type, and move items between vault and inventory.

The delete sub-menu allows a user to delete a character or an account or delete an item. The program will handle all the other deletes that have to happen.

Finally, the report sub-menu provides functions for the user to generate different reports regarding the database. It allows the user to list all existing accounts, list all primary weapons

that exceed a damage value, shows all the armor owned by a character, shows the total resilience of all character, and list characters that own more than a certain amount of items.

Mapping (All phase2 queries and menu options are aligned):

- All CREATE TABLE queries are ran in the background when the program first ran, and when the “reset” option is chosen.
- Main menu/Insert Menu --- Phase2/Generating Reports/1-14
- Main menu/Delete Menu ---Phase2/Generating Reports/15-16
- Main menu/Update Menu ---Phase2/Generating Reports/17-22
- Main menu/Report Menu ---Phase2/Generating Reports/23-27

Video Link: <https://youtu.be/mQYEjzfZflo>