COMPSCI 222-Intermediate C++ Final Project

Basic Information:

The program will emulate a clothing storefront, and will have various options in order to successfully run a business. For instance, listing all available products, sorting by the type of clothes, or clothes under a specific price range, or by size.

Team:

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Minimum Viable Product:

1. Create a database file for the store, which includes at least 3 types of clothing, where each item has different fields:
   1. Clothing type
   2. Brand
   3. Location made
   4. Price
   5. Reservation status
   6. Quantity

Several options may also have additional fields:

* 1. Shoe size (shoes)
  2. Sleeve length (dresses)
  3. Brim length (hats)

More fields may be created depending on what clothes we implement.

1. At least two of the individual products have the same brand, same location, reservation, etc.
2. Multiple brands will be present, it will not be *uniform*. (or, since this is a clothing store, it will not be…you know, all the same)
3. The database is correctly read from an external file, and data is correctly parsed.
4. The program begins with a menu, and functions can be called via numerical/character input:
   1. Print all products
   2. Print only a specified clothing type
   3. Print clothes made by a specified brand
   4. Print clothes that are not reserved
   5. Print clothes that are under a specified price
   6. Sort clothes options:
      1. Type
      2. Brand
      3. Location
      4. Price
      5. Reservation status
   7. Reserve a piece of clothing
   8. Quit
5. The program loops until the user presses quit.
6. The entire program compiles and runs without unhandled exceptions, and includes protection against malicious user input.

Stretch goals:

1. Allow the user to add a piece of clothing, and specify data for each field. This will update the database file as well.
2. Allow the user to purchase a piece of clothing. This will update the database file as well.
3. Allow the user to create an ID, and when attempting to buy a reserved piece of clothing, the user can input their ID to verify their identity and successfully buy the clothing.
4. Add a time functionality, creating certain times or dates where all clothing is on sale. Print a message stating that this is the case.
5. Add a music player to the code, including at least one mp3 file in the folder, that plays music.
6. Add blackjack. No, I’m not joking. I might be able to code some functionality with (random) functionality.
7. A user database that stores username and passwords to login. Which would then need a sign-up feature as well.
8. Admin and user accounts depending on login. Admins would be able to change clothing fields while users would obviously only be able to shop.
9. A shopping cart that if the user logs off without “buying” the shopping cart will carry over to next login.
10. User GUI
11. User Account page with personal info (name, phone number, address) and order history

Schedule:

Week 1-create classes, and main menu loop

Week 2-start working on functions

Week 3-Finish functions, start working on stretch goals

Week 3.5-Continue stretch goals, Bug testing