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11/23/2024

3-3 Project One: Inventory app Proposal

For my project, I am doing option 1: Inventory App. For my assignment, I decided to choose the Inventory Tracker App. The application aims to help users manage items in a warehouse efficiently. Upon logging in, users will see an overview of all inventory items displayed in a grid format. They can add new items, remove items, and adjust quantities. Also, the app will notify users when any item’s quantity is reduced to zero, ensuring the warehouse remains well-stocked.

With the objective goal in mind, I plan on creating four different screens: one for logging in and creating an account, one for viewing the inventory, one for managing item details (add/edit/delete), and one for notifications about stock levels. From a programming perspective, I will create a database with at least two tables: one for storing user information (logins and passwords) and another for inventory data (item name, category, and quantity). I will also create triggers to handle when a user adds or removes an item or modifies the amount of an existing item. Finally, I will implement a notification feature that alerts users about out-of-stock items.

The Inventory Tracker application has at least three user types: warehouse managers, inventory staff, and supervisors. A warehouse manager oversees stock levels and will rely on notifications to restock items before they run out. Inventory staff will use the app daily to add or remove items, adjust quantities, and ensure accurate inventory tracking. Supervisors will use the app less frequently to check overall inventory status and verify that processes are being followed. All these users share the goal of maintaining an organized and well-stocked warehouse, with the app helping them track inventory in real-time.

The Inventory Tracker should have four screens: login, inventory grid, item management, and notifications. When a user opens the app, they will have the option to log in or create a new account. Once logged in, the user will be directed to the inventory grid screen to view all items. This grid will display item names, categories, and current quantities. Users can select an item and open the item management screen to adjust the amount or remove the item. There will also be an option to add new items to the inventory. Notifications will appear when an item’s stock level reaches zero, prompting users to restock.

I will use triggers and conditions for user actions to implement this functionality in the code and UI. For example, on the login screen, the user can log in or sign up. They will be taken to a form to create an account if they click the sign-up option. Once their information is saved to the database, they can log in. When a user logs in, the code will validate their credentials against the user table in the database. If valid, they will move to the inventory grid. If invalid, they will see an error message and be prompted to try again. Similarly, clicking an item on the inventory grid screen will open the item management screen, while out-of-stock items will trigger a notification screen.

This process ensures that all user interactions are intuitive and functional while maintaining the flow of data between the UI and the database.