**CS 360 Project One**

The goal of this project is to create an Inventory App that helps warehouse staff keep track of items more easily. The app will let users log in securely, view inventory items in a grid layout, and add, remove, or update item quantities. It will also send a notification when an item’s quantity reaches zero. This app will help warehouse managers keep the inventory accurate and up to date while giving staff a quick way to check and update stock, which will make daily tasks smoother and more efficient. The app will have a few key parts. First, there’s the login screen, which will let users log in or register if they’re new. Then, there’s the inventory screen, which will show all the items in a grid format with details like names, quantities, and descriptions. The app will also include features to add new items, delete items, and adjust item quantities, the app will notify users if the quantity of any item hits zero, so they can act.

This app is meant for warehouse employees, specifically managers and staff. Managers will use it to add or remove items and make sure everything is accurate, while staff will use it to update item quantities regularly. Both groups will benefit from a simple, user-friendly design to make their work easier. For example, managers might be more focused on overseeing stock levels, while staff will likely interact with the inventory every day to update numbers. The app will have a few screens and features to make it easy to use. The login screen will allow users to enter their credentials or register if they haven’t logged in before. Once logged in, users will go to the inventory screen, which will display all the items in a grid. Each item will have buttons to increase or decrease its quantity or delete it. There will also be an add item screen where users can input a new item’s name, description, and quantity. If any item’s quantity reaches zero, the app will notify the user with a popup or a red marker on the grid.

The navigation between these screens will be simple. Users will start at the login screen. After logging in, they’ll move to the inventory screen. If they click the “Add Item” button, they’ll go to the add item screen, and any notifications will show directly on the inventory screen when needed. The app’s functionality will connect directly to its design. For example, the login screen will have input boxes for usernames and passwords and buttons for logging in or registering. The inventory screen will display items using a grid view, and users can click buttons to update or delete items. These actions will update the database, which will refresh the grid to show the changes. On the add item screen, users will enter details into text fields and save them, which will add the item to the inventory. For the zero-notification feature, the app will run a background service that monitors item quantities and shows a notification when needed.

References:  
Android Developers. (n.d.). *Design and plan: Material Design guidelines.* Retrieved from <https://developer.android.com/design>  
Google. (n.d.). *Material Design basics.* Retrieved from <https://material.io/design>