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3-3 Submit Project One

App Development Proposal: **Option 1: Inventory App**

I want to share an app development proposal for an inventory app targeted at warehouse management. The objective of this project is to create a mobile application that allows users to easily track and manage their warehouse inventory. Let's dive into the 4 main details:

1. Project Goals and Description:

We aim to develop an inventory tracking application that provides warehouse managers and employees with a user-friendly tool to monitor and manage their inventory. The key components of the app will include a login system, a database to store inventory items and user credentials, a screen to display the inventory items, features for adding/removing items and adjusting quantities, and notifications for items reaching zero quantity.

2. User Description and Assumptions:

The app will cater to two types of users: warehouse managers and warehouse employees. Warehouse managers need to oversee inventory, monitor stock levels, and make strategic decisions. Warehouse employees, on the other hand, focus on efficiently managing the physical inventory, including adding new items, updating quantities, and removing items when needed.

Users will require a secure login system, granting them access based on their roles and enabling role-specific actions. We assume that users are familiar with basic mobile application interfaces and possess the necessary authorization to access the inventory app.

3. Screens and Features:

a) Login Screen:

- Allows users to log in by entering their credentials or create a new account.
- New users can create an account by providing required details (username, password).
- Upon successful login, users will be directed to the inventory screen.

b) Inventory Screen:

- Presents a grid or list view of all items in the inventory.
- Each item listing includes details such as the name, current quantity, and other relevant information.
- Users can scroll through the list to view all items.
- Tapping on an item will open the Item Details screen.

c) Item Details Screen:

- Provides comprehensive information about a specific inventory item.
- Displays the item's name, description, current quantity, and other relevant details.
- Allows users to increase or decrease the quantity of the item.
- Offers options to remove the item from inventory or mark it as out of stock.
- Includes a back button for easy return to the Inventory screen.

d) Notifications:

- The app should notify users when the quantity of any item reaches zero.
- Notifications can be system notifications or displayed within the app.
- Users can tap on a notification to directly access the Item Details screen for the affected item.

e) Navigation:

- The app should incorporate a navigation drawer or bottom navigation bar for seamless screen switching.
- Users can easily switch between the Inventory screen, Item Details screen, and other relevant screens like reports or settings.

4. Code and UI Integration:

- The app's functional requirements will be implemented by using appropriate UI components and connecting them to the underlying data model and database.
- Data calls will be made to retrieve inventory data from the database, enabling population of the Inventory screen with item lists and details.
- When users interact with UI components, such as adjusting quantities or removing items, the app will make data calls to update the database accordingly.
- Data calls will be used to check for items reaching zero quantity, triggering notifications for the user.

Please note that the specific programming language, framework, and database management system will depend on the chosen platform and technologies for development. **Android Studio**, the powerful integrated development environment (IDE) for Android app development, will be the perfect tool to bring our inventory tracking application to life. With its robust features and seamless integration, Android Studio provides an exceptional platform for crafting a user-friendly and visually appealing inventory app. Leveraging the advanced capabilities of Android Studio, we will create an intuitive user interface, connect it to a reliable database, and implement the necessary code to ensure smooth data flow and interaction between screens. By harnessing the full potential of Android Studio, we can deliver a high-quality inventory app that meets the needs of warehouse managers and employees, revolutionizing their inventory management experience.

By following these guidelines and incorporating user-centered design principles, our inventory app will offer warehouse managers and employees a seamless and intuitive experience, streamlining inventory management and reducing the risk of stockouts.