**Ali ARSLAN**

**CS-360 2-3 Project One Milestone**

**Selected Application:** Option 1-Inventory App

**Inventory Application Project Plan**

**Introduction and Purpose of the Application**

I have chosen to work on the Inventory App. The general purpose of this application is to effectively manage warehouse inventory, ensuring accurate tracking of all items, keeping their quantities updated, and maintaining stock levels. This application will be crucial for warehouse managers, personnel responsible for inventory operations, and small business owners.

**Mobile App Objectives**

The main objective of the Inventory App is to facilitate tracking and management of items in a warehouse environment. The app aims to streamline inventory management processes with real-time updates, simplify item recording, and promptly notify users when stock levels are low or depleted. Additionally, this app will help individual users and small business owners reduce costs. The application will utilize a grid system to display inventory, with a search function added above the column, so that it is possible to make searches by entering a textbox and on the grid above it will also be possible to perform detailed searches, with this feature a new screen will be created and additions, deletions, and editing operations can be carried out on it, and the data of the logged-in user will be displayed on the screen. A new user will be created. In this way, all the needs of the user about stock display will be met, and the alert creation feature will be able to create alerts according to the conditions desired by the user and send notifications.

**Main Components**

1. **Two-Table Database**
   * Inventory Items Table: This table will store information about each item in inventory, including item ID, name, description, quantity, and location.
   * User Logins Table: This table manages user credentials securely, providing access and authentication.
2. **Login Screen**

The login screen allows users to log into the application or create a new account if they have not logged in before. This ensures secure access to the application.

1. **Inventory Grid Screen**

This screen provides a comprehensive view of all items in inventory in a grid format, enabling users to view current stock levels. In addition, it will allow quick searches via the added search above the columns (textbox) on this grid, and with the buttons placed on this grid, the transition to the editing screen, the transition to the alert screen, or the processing can be done.

1. **Item Management Screen**
   * Users will be able to add and remove items from inventory, ensuring the database remains current and accurate.
   * Users can also increase or decrease the quantity of specific items as needed.
   * This screen will also work as an update, so when any reference is taken, the relevant fields will be filled in automatically.
2. **Notification System and Screen**

The application will notify users when the quantity of any item in inventory reaches zero, allowing timely stock replenishment and preventing stockouts.

**High-Level Design**

At a high level, the application will have a user-friendly interface with intuitive navigation. Key features include secure login processes, a clear and organized inventory view, and simple item management tools. The application will use push notifications or in-app alerts to notify users of critical inventory changes, enabling them to quickly respond to inventory goals.

**Comparison with Competing Mobile Applications**

1. **Sortly**

Sortly is an inventory management application designed for businesses of all sizes. It offers features such as barcode scanning, QR code generation, and detailed reporting. The application is user-friendly and allows visual inventory tracking with item photos. Due to its high cost and many features that small users may not need, it may not be suitable for small users who may prefer a simpler application.

<https://www.sortly.com/>

1. **Zoho**

This application offers an easy way to manage inventory, including tools for categorizing items, monitoring stock levels, and generating reports. It also supports multiple currencies and units of measurement for various business needs.

<https://www.zoho.com/>

Sortly and Zoho share similar goals with the Inventory App, such as efficient stock management and user-friendly interfaces. By examining these applications, we can integrate the best practices and innovative features into our own application to enhance user experience and functionality.

**Potential Users**

1. **Individual Sellers Online**

For individuals selling online, managing inventory can be challenging as products may be located in different places such as their homes, warehouses, or Amazon depots. This application can help them organize these locations and quantities and can also reduce their costs by providing low-cost the way.

**Goals:** optimize stock management, track their inventory at all times, improve sales operations, and increase customer satisfaction.

**Needs:** real-time stock updates, fast and accurate inventory tracking, critical stock notifications.

**Interaction:** they will manage stocks daily, in order to improve the performance of their stocks in the same app.

1. **Warehouse Staff**

These people may need an application where they can follow everything more easily and mobile, instead of complex applications. For this reason, this application can comply with their living standards.

**Goals:** To quickly add, update and remove inventory items and ensure accurate stock counts.

**Needs:** A user-friendly interface, fast item browsing and updating, and notifications for low stock.

**Interaction:** Warehouse staff will interact with the application frequently throughout their shifts to manage inventory tasks efficiently.

1. **Small Business Owners**

Since small business owners do not have very complex operations and cannot pay very high costs for such simple operations, this type of application will meet their needs and be compatible with their lifestyles.

**Goals:** Oversee overall inventory management, ensure business continuity and make informed decisions based on inventory data.

**Needs:** Access to inventory reports, insights on stock levels, and notifications about critical inventory changes.

**Interactivity:** Business owners can use the application periodically to review inventory status and make strategic decisions.

By meeting the needs of these user types, Inventory App will serve as a valuable tool in the daily operations of a warehouse and increase efficiency and accuracy in inventory management.