Software Walkthrough

This document describes the functionalities and user interface (UI) of the MEDI-CAB: An Automated Medicine Cabinet for Real-Time Medicine Tracking and Expiry Alerts. It provides an overview of the layout and functioning of the system, making the real-time medicine tracking and expiry alert management and monitoring very effective for a user.

Home window section. The home window section (Fig. 1) is the first prompt after opening the application. It shows the software logo that prompts the user to tap the screen in order to proceed.

Figure 1. Home window section

Main menu section. The main menu section (Fig. 2) is the primary navigation hub of the system providing users with access to key features such as the Inventory, Expiry Status, and Logs Section. Designed for ease of use and intuitive interaction, this section consolidates the most essential modules necessary for monitoring and managing the contents of the medicine cabinet. This page serves as a structured and

user-friendly control panel that enhances the functionality, accessibility, and safety management capabilities of the MEDI-CAB system.

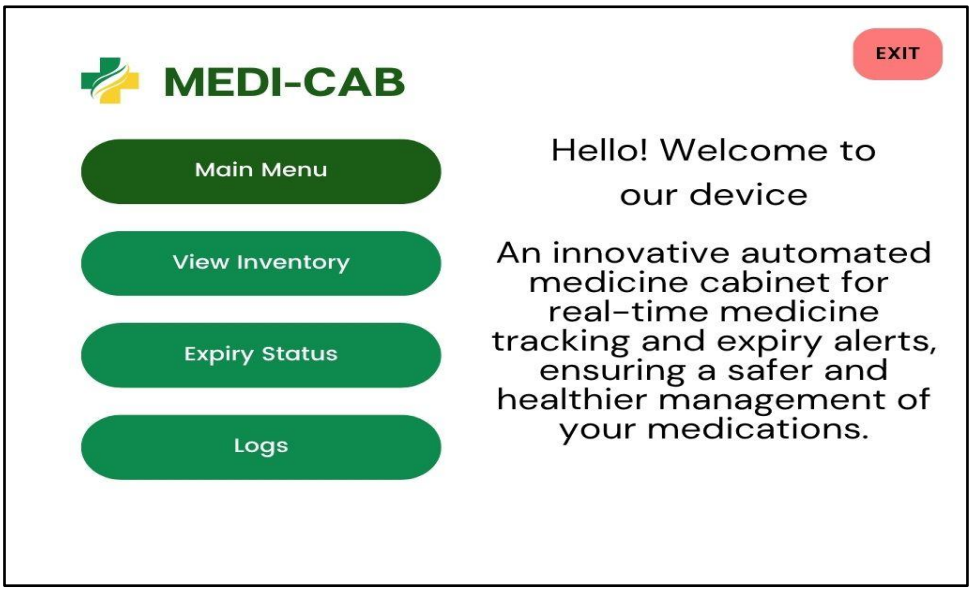

Figure 2. Main menu section

View inventory section. The view inventory section (Fig. 3) displays a detailed list of all stored medicines, including their quantities and available stocks.

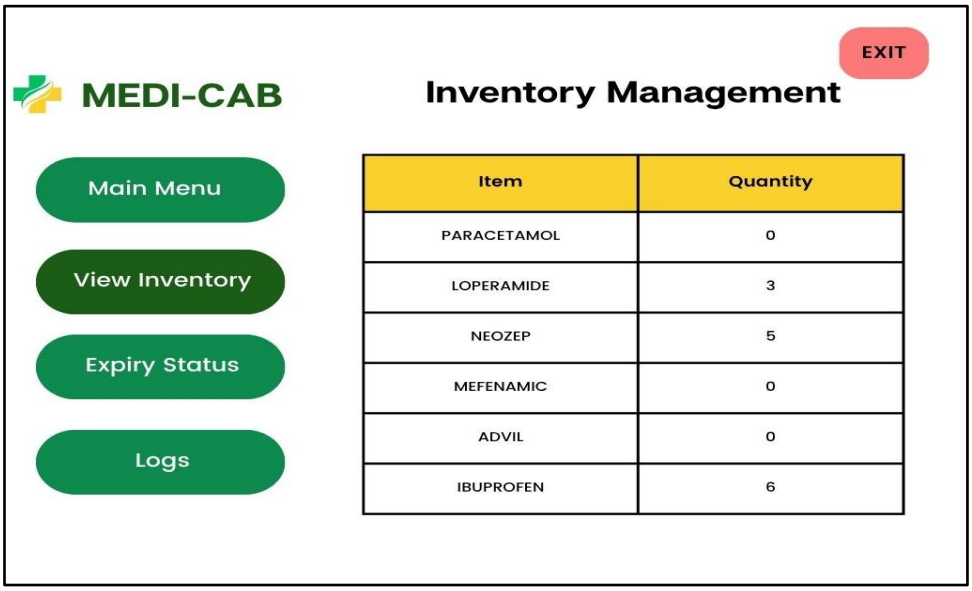

Figure 3. View inventory section

Stock alert notification window. The stock alert notification window (Fig. 4) display alerts to the user when medicine stock levels are low and require replenishment.

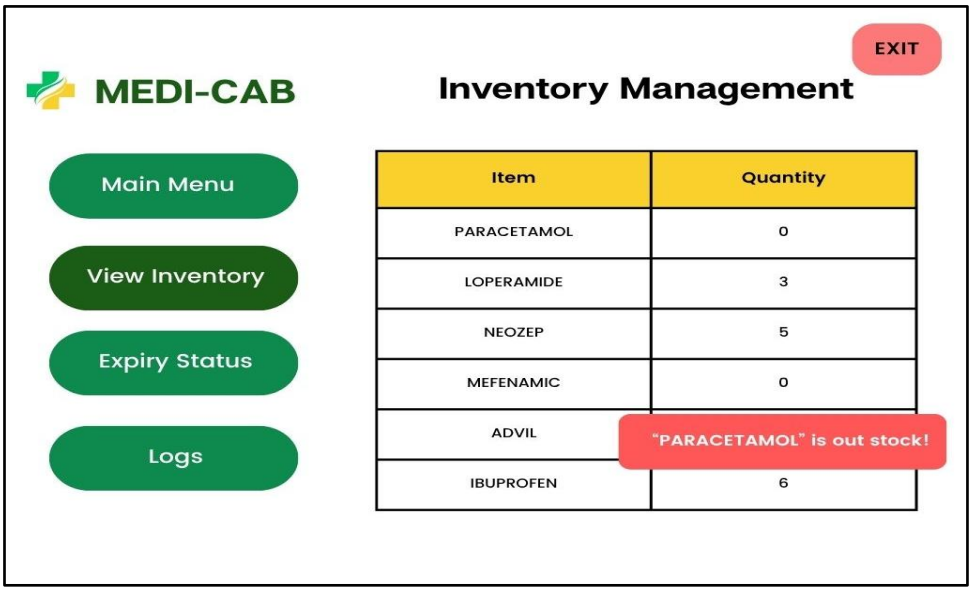

Figure 4. Stock alert notification window

Expiry status section. The expiry status section (Fig. 5) displays a list of medicines with their expiration dates and remaining days, highlighting expired items for timely management. It is a critical component of the MEDI-CAB system that provides users with a detailed overview of all stored medicines along with their respective expiration dates and the number of days remaining before they expire. This section automatically calculates and updates the remaining days based on real-time data from the system's internal clock, ensuring accurate tracking. This feature enables users to take prompt action in removing or replacing expired items, thereby minimizing health risks and ensuring that only safe and effective medicines are retained in the cabinet.

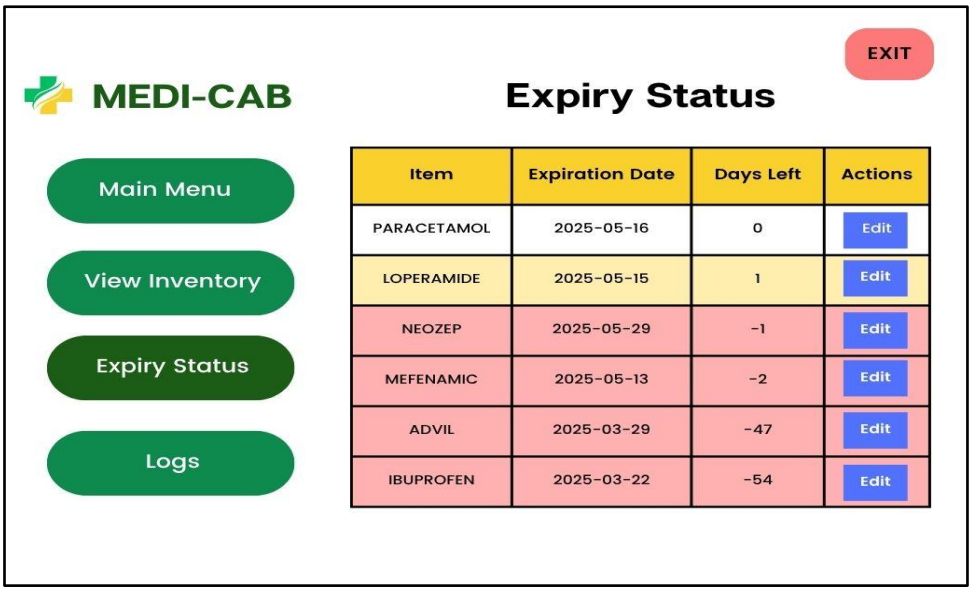

Figure 5. Expiry status section

Passcode entry. When editing an expiration date, a passcode entry (Fig. 6) pops up. Only authorized users can enter the password to make changes.

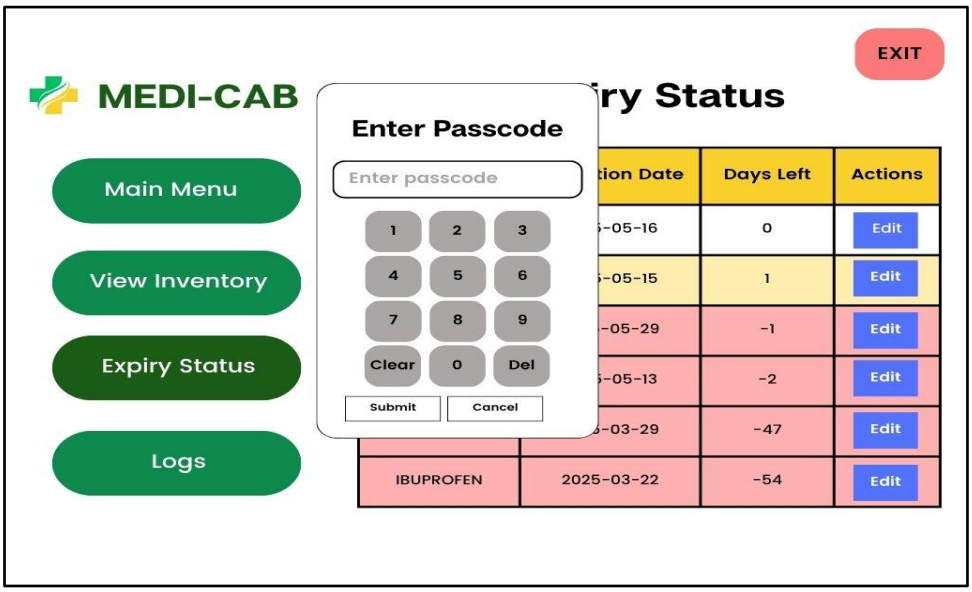

Figure 6. Passcode entry

Change passcode. The authorized user can access a screen to change passcode (Fig. 7) for editing expiration dates. This helps keep the system secure and prevents unauthorized edits.

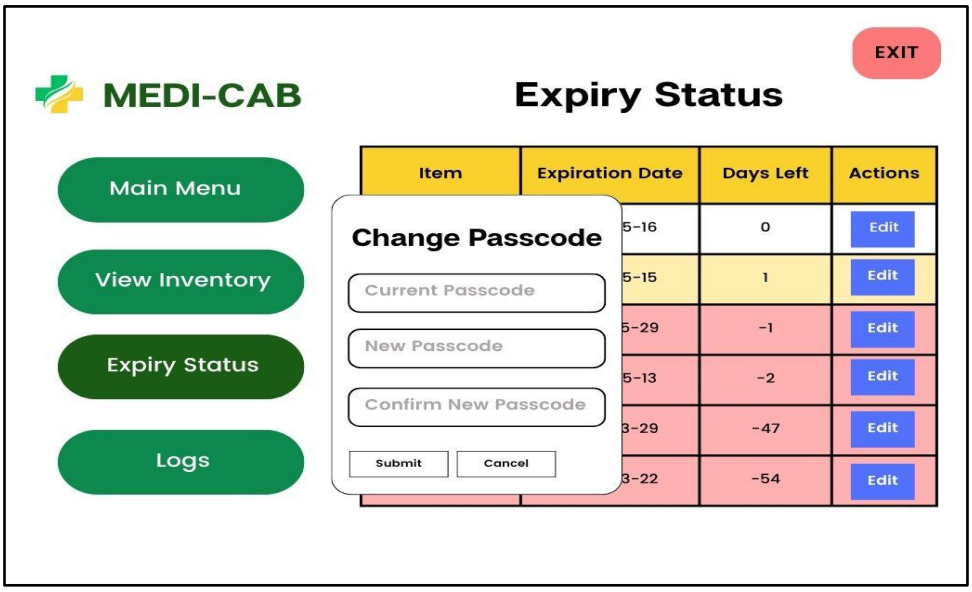

Figure 7. Change passcode

Set expiration date. After entering the passcode, a date picker to set expiration date (Fig. 8) appears to allow the user in setting a new expiration date. This feature ensures that the medicine information stored in the system remains accurate, reliable, and up to date. Once a new expiration date is selected, the system automatically saves this information into the database. It also calculates the remaining days before expiration for each medicine, which is then reflected in the monitoring system for easier tracking. This prompt for setting the expiration date only appears after the user has successfully entered the authorized passcode. This security measure is implemented to prevent unauthorized users from accessing or modifying the expiration data, thereby maintaining the integrity of the stored medical information and reducing the risk of misuse or accidental changes.

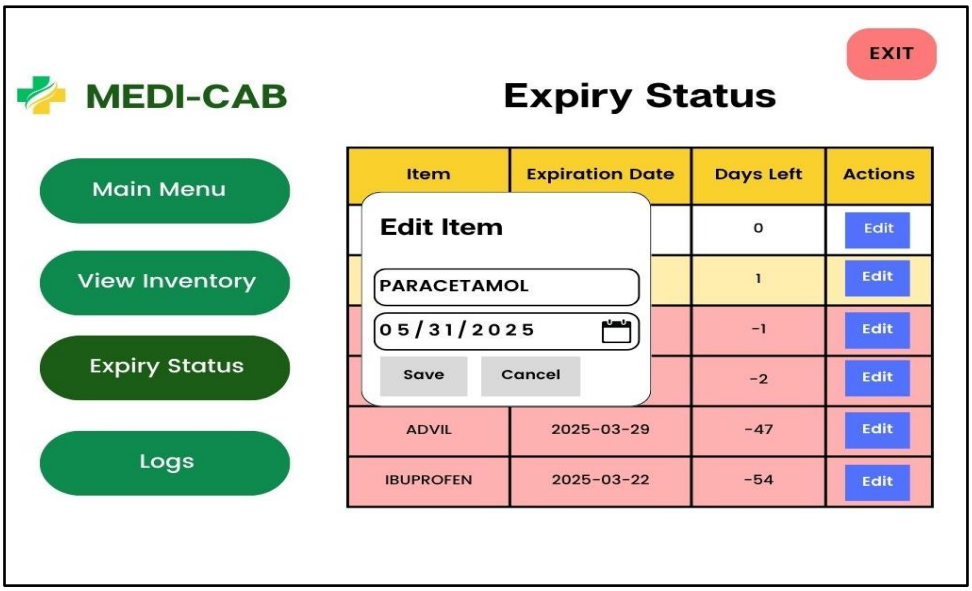

Figure 8. Set expiration date

Expiration alert notification window. The expiration alert notification window (Fig. 9) provides the user with real-time alerts for expired medicines, ensuring users are promptly notified to discard them safely.

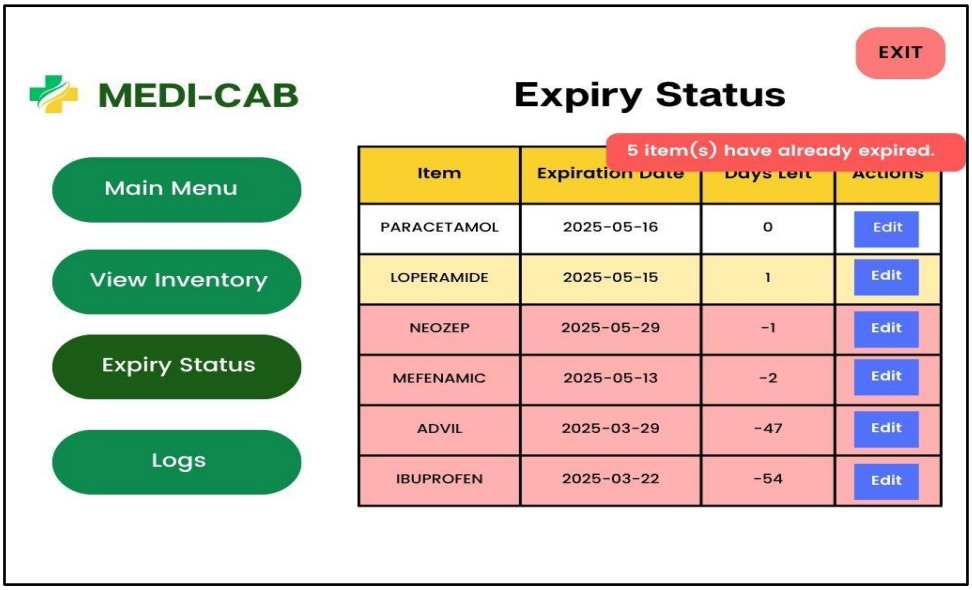

Figure 9. Expiration alert notification window

Logs section. The logs section (Fig. 10) maintains a detailed record of systems activities, including user access, item updates, and corresponding date and time stamps for effective tracking and accountability.

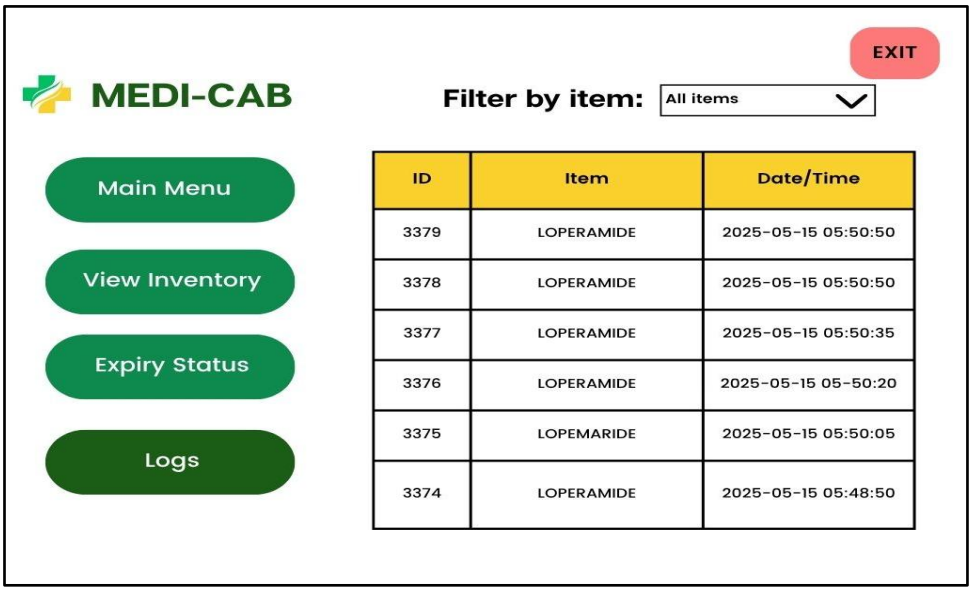

Figure 10. Logs section