Student Name: THARUN S

Seat No: 137

Project ID: 17

Project title: Mess groceries stock maintenance

Technical Components

Component	Tech Stack
Backend	Express and Node JS
Frontend	React JS
Database	Mongo DB
API	Restful services

Problem Statement:

The Infra-Mess grocery stock management system needs a web portal that addresses the following essential functions in order to address the mess:

- **Indent Management:** Allow users to submit requests for Stocks with the necessary quantities under the Indent Management feature.
- **Indent Approval:** Enable approvers or Admin to review and approve/reject indent requests.
- **Order Creation:** Produce purchase orders by using the authorized indents as a guide.
- **Goods Receipt:** Keep track of the grocery receipt and the specifics of the

bill.

- **Sub-Store Issuance (Boys mess/Girls mess/Day scholar mess):** Assist in providing groceries to sub-stores in accordance with specifications.
- **Consumption Tracking:** Keep tabs on how many groceries are consumed in each mess and group them according to meal times (breakfast, lunch, and dinner, for example).
- **Expiration tracking:** Track the expiration dates of foodstuffs and send out notifications or alerts when a product expires.
- **Stock maintenance Report:** Create reports for stock maintenance, such as cost reports, monthly reports, and grocery comparison rate charts.

Project-flow:

Purpose:

To develop the Infra-Mess system, optimizing college mess grocery management, ensuring efficient resource utilization, a user-friendly interface, transparent accountability, and insightful reporting are prioritized. It automates ordering, tracks consumption, and generates reports for informed decision-making, offering practical education and effective inventory control.

Scope:

The project entails developing a user-friendly system with real-time scheduling and stock level tracking for handling grocery requests and approvals. Ensuring integration with current email systems will guarantee prompt notifications and thorough reporting for efficient administration.

Business Context:

Optimizing grocery distribution and procurement is the goal of BIT College's Infra-Mess grocery management system, which also aims to lower scheduling conflicts and increase operational efficiency. This facilitates seamless communication and coordination among **sub-store managers**, **mess managers,** and **administrators**, all vital **stakeholders** in the project's success.

Consideration:

- All users possess active Google accounts for authentication.
- Users have regular access to internet-enabled devices.

Dependencies:

- Integration with Google OAuth for user authentication.
- Consistent performance and availability of the existing email server.

User Personas:

- Sub-Store Manager: Updates stocks, updates daily stock usage and places orders based on inventory levels.
- Mess Manager: Approves orders, ensuring adherence to budget and verifying with bills.
- Admin faculty: Oversees and settles disputes as needed.

User stories:

- As a sub-store manager, I update grocery stocks, update daily usage of stocks and place orders efficiently based on real-time inventory levels.
- As a mess manager, I review and approve grocery orders submitted by the sub-store manager, ensuring they adhere to budget constraints and verify with the bills.

Functional Requirements:

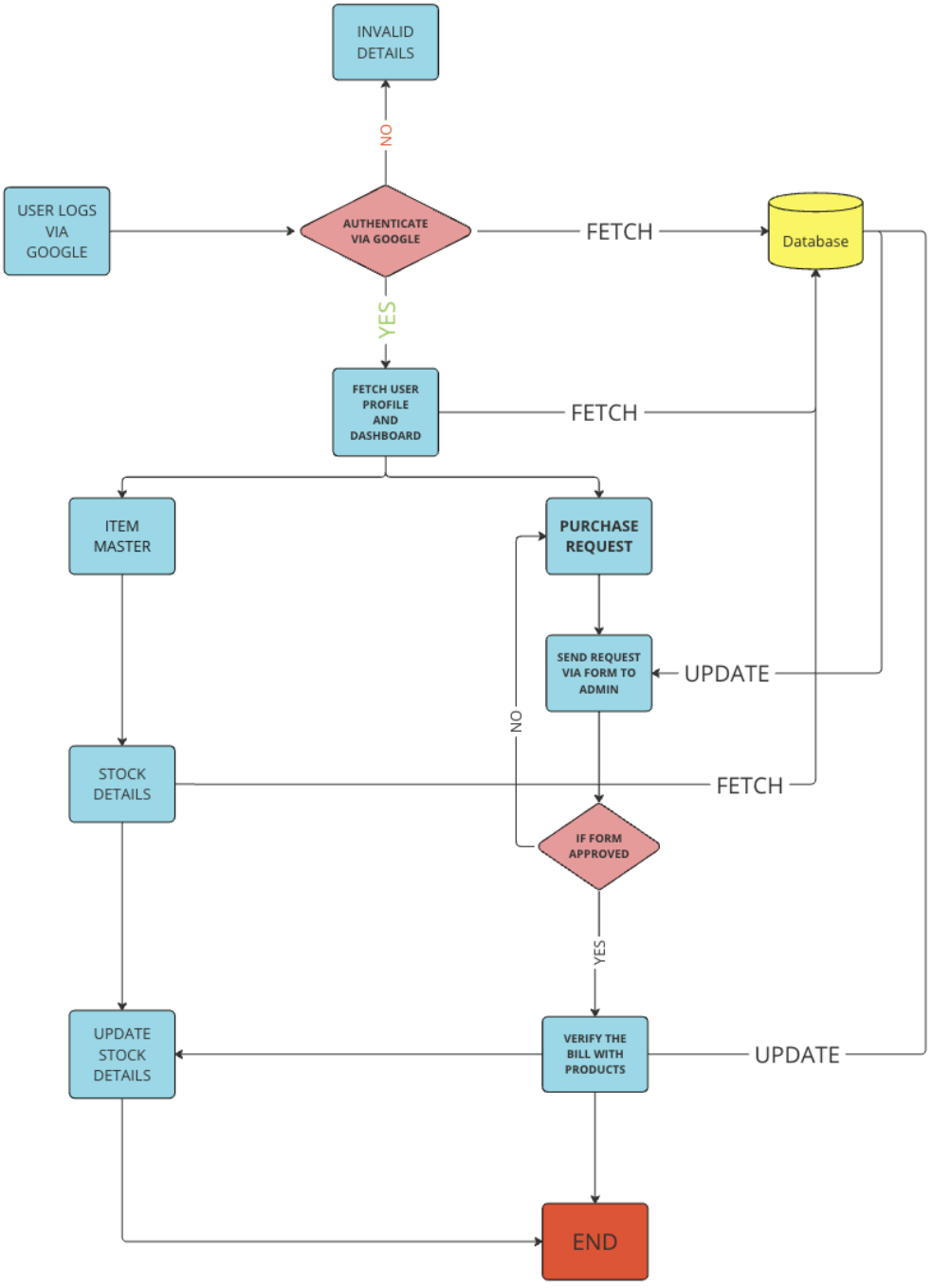
1. **User Authentication:** Secure login via Google OAuth for sub-store managers, mess managers, and administrators.
2. **Request Form:** A user-friendly form for mess managers to submit grocery

orders, specifying details such as item and item quantities.

3. **Conflict Resolution:** Automatic detection of conflicts, such as overlapping delivery schedules or budget constraints, and provide options for resolution to ensure smooth order processing.
4. **Real-time Dashboard**: The real-time dashboard empowers Sub-Store Managers to update stocks and track daily usage while enabling Managers and Administrators to generate insightful reports for informed decision-making, ensuring data security with restricted access for viewing.
5. **Priority Algorithm:** An automated prioritization algorithm to assign priority to grocery orders based on urgency or criticality, ensuring timely processing and delivery of essential items.

FLOW CHART:

USER'S INTERFACE



ADMIN'S INTERFACE