BANNARI AMMAN INSTITUTE OF TECHNOLOGY
An Autonomous Institution Affiliated to Anna University Chennai - Approved by AICTE - Accredited by NAAC with "A+" Grade
SATHYAMANGALAM - 638 401 ERODE DISTRICT TAMIL NADU INDIA
Ph: 04295-226000 / 221289 Fax: 04295-226666 E-mail: stayahead@bitsathy.ac.in Web: www.bitsathy.ac.in

Software Requirement Specification

STUDENT NAME : ATCHAYA B

ROLL NO : 7376222AL114

SEAT NO : 17

PROJECT ID : 17

STACK : PYTHON-AI

PROJECT TITLE : INFRA - MESS GROCERIES STOCK MAINTENANCE

PROBLEM STATEMENT:

Managing the groceries stock across three mess facilities - Boys Hostel, Girls Hostel, and Day Scholar Mess - within our college campus poses significant challenges:

- **Manual Inventory Management:** Current practices rely on manual tracking of stock levels, leading to inefficiencies, inaccuracies, and potential errors.
- **Overstocking and Wastage:** Lack of real-time visibility into stock levels results in overstocking of certain items and subsequent wastage due to expiry or spoilage.
- **Inefficient Procurement:** Inadequate forecasting of demand and stock levels leads to inefficient procurement practices, causing delays or shortages in supply.
- **Consumption Tracking:** There is a lack of visibility into the consumption patterns of groceries in each mess facility, making it difficult to optimize stocking levels and minimize wastage.

TECHNICAL COMPONENTS :

Components	Tech Stack
Front End	➢ HTML ➢ CSS ➢ JS
Back End	➢ Python ➢ Django(Python Web)
Database	➢ PostgreSQL ➢ MySQL
API	➢ OpenAPI ➢ SOAP APIs ➢ REST Ful API

PROJECT-FLOW:

Purpose:

To develop an efficient Mess Groceries Stock Maintenance System tailored to the specific needs of our college's three mess facilities, aiming to optimize resource utilization, minimize wastage, and enhance operational efficiency.

Scope:

This system incorporates various functionalities, including user authentication, indent management, approval workflow, order management, receipt management, sub-store management, consumption tracking, expiry product management, and reporting and analytics.

Business Context:

The Mess Groceries Stock Maintenance System aims to streamline the management of groceries in our college's mess facilities, ensuring efficient utilization of resources, minimizing wastage, and enhancing operational efficiency. Primary stakeholders include mess supervisors, administrative staff, and college management.

Consideration:

- Integration with existing college systems and processes.
- User-friendly interface accessible to staff responsible for stock management.
- Compliance with regulatory standards and internal policies related to procurement and inventory management.

Dependencies:

- Integration with procurement systems and suppliers for seamless order processing.
- Availability of reliable internet connectivity for real-time data access and updates.

User Personas:

- *Mess Supervisors:* Responsible for procurement planning, order processing, managing stock levels, issuing indents, and overseeing consumption in mess facilities.
- *Administrative Staff:* Responsible for approving indents, resolving conflicts, and generating reports.

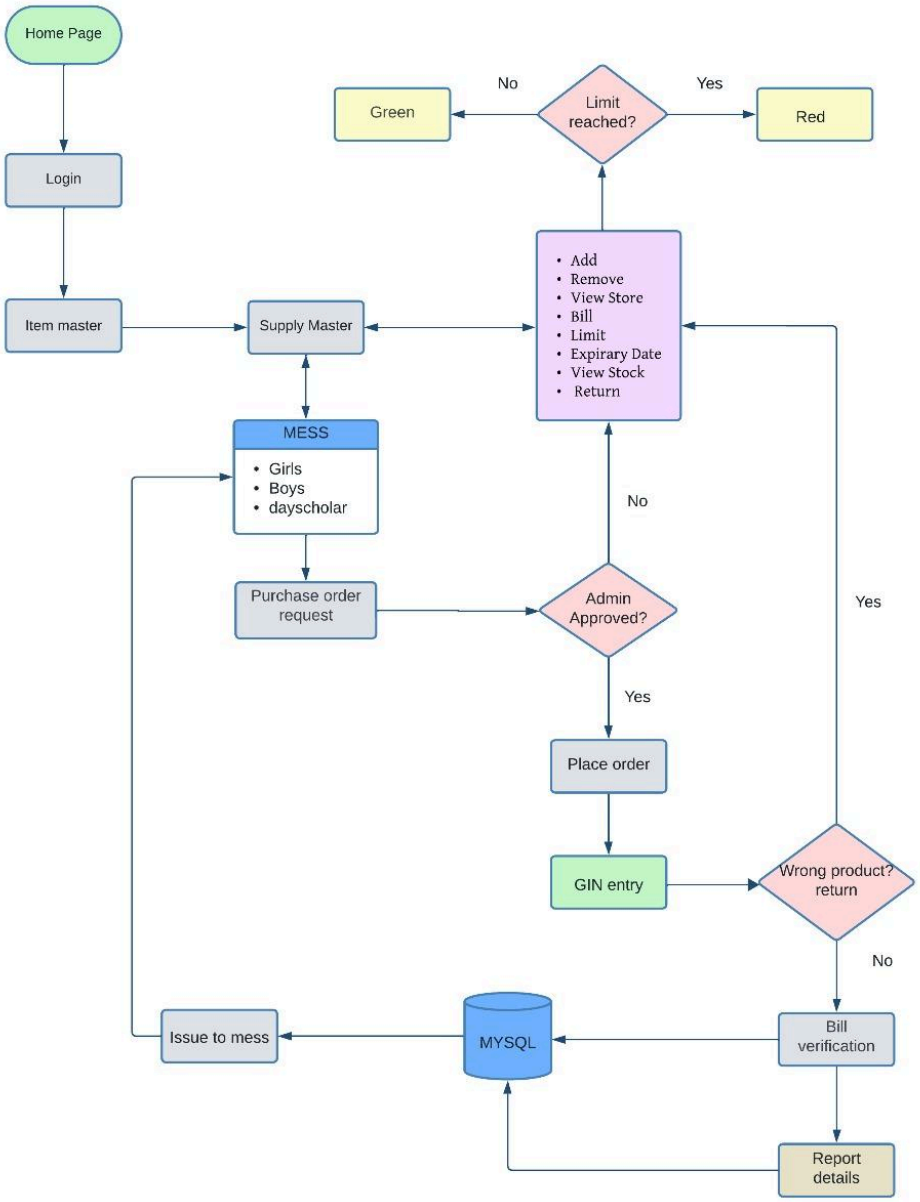
User Stories:

- As a mess supervisor, I want to easily raise indents for required groceries, generate orders and track their consumption to optimize stocking levels.
- As an administrative staff, I want to approve indents, resolve conflicts, and generate reports to facilitate informed decision-making.

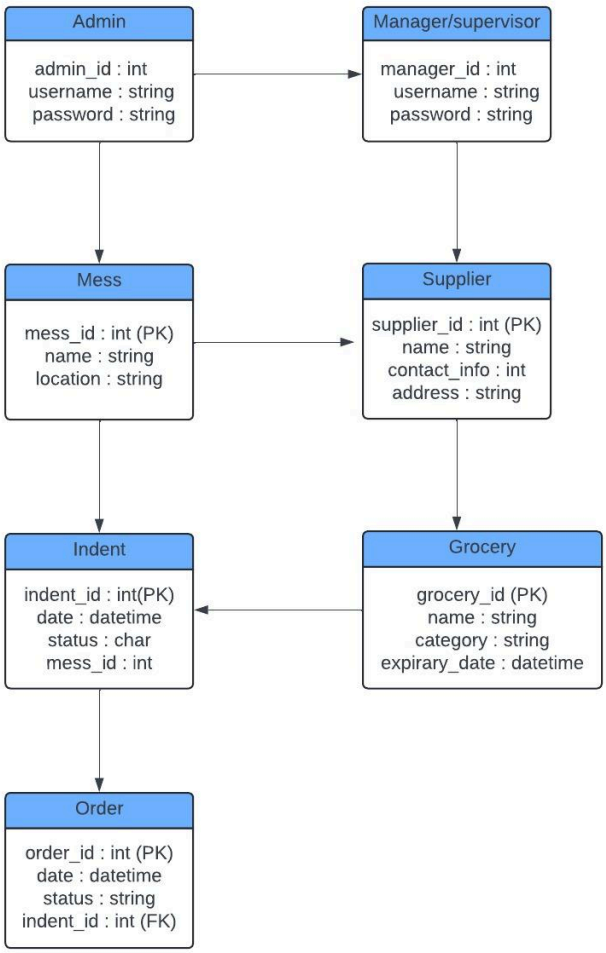
Functional Requirements:

- **Indent Management Module:** Allows manager to raise indents, approval from administrative staff, and track indents for groceries.
- **Order Management Module:** Automates order generation based on approved indents and current stock levels.
- **Receipt Management Module:** Records received groceries and reconciles with supplier bills.
- **Sub-Store Management Module:** Allocates groceries to sub-stores within each mess facility based on predefined criteria.
- **Consumption Tracking Module:** Records consumption of groceries by each mess facility and generates consumption reports.
- **Expiry Product Management Module:** Monitors expiry dates of groceries and sends notifications for timely disposal.
- **Reporting and Analytics Module:** Generates various reports and comparison rate charts for stock maintenance and cost analysis.

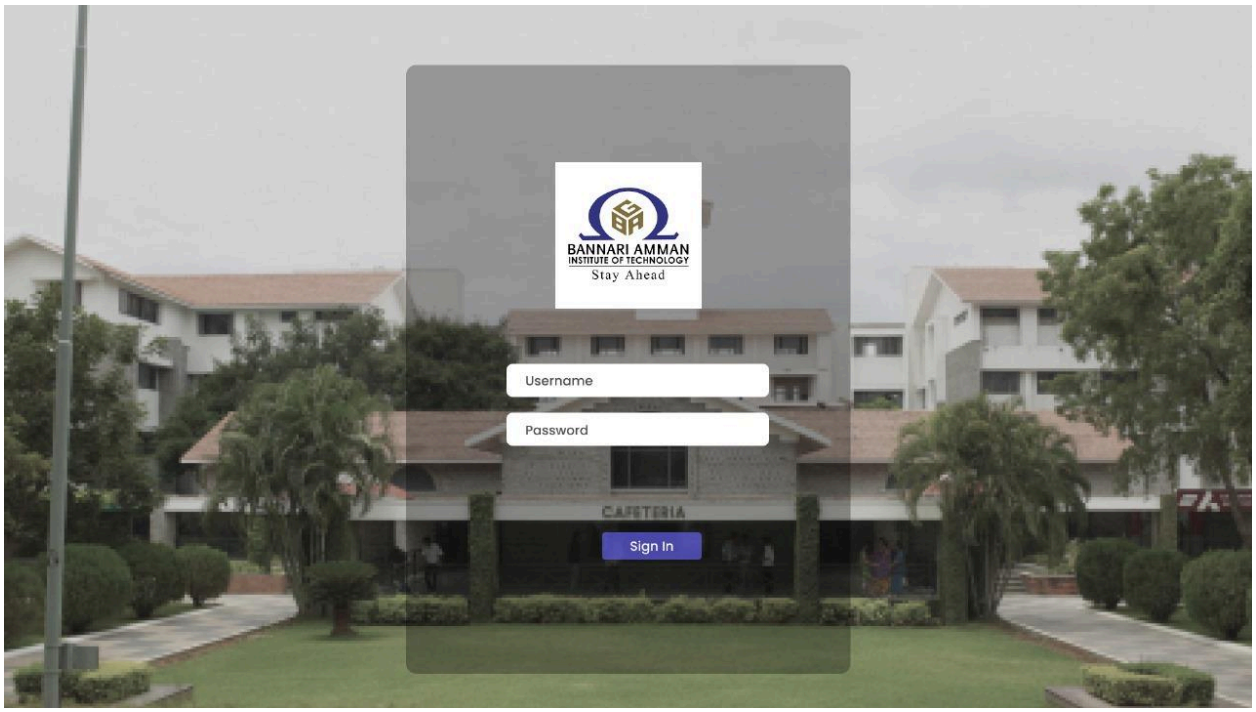
FLOW CHART :


Home Page
Login
Item master
Supply Master
MESS
• Girls
• Boys
• dayscholar
Purchase order request
Admin Approved?
No
Yes
Place order
GIN entry
Wrong product? return
Yes
No
Bill verification
Report details
MYSQL
Issue to mess
Limit reached?
No
Green
Yes
Red
• Add
• Remove
• View Store
• Bill
• Limit
• Expirary Date
• View Stock
• Return

ER - Diagram :


Admin
admin_id : int
username : string
password : string
Manager/supervisor
manager_id : int
username : string
password : string
Mess
mess_id : int (PK)
name : string
location : string
Supplier
supplier_id : int (PK)
name : string
contact_info : int
address : string
Indent
indent_id : int(PK)
date : datetime
status : char
mess_id : int
Grocery
grocery_id (PK)
name : string
category : string
expirary_date : datetime
Order
order_id : int (PK)
date : datetime
status : string
indent_id : int (FK)

Login Page :



Features

Mess

- Boys
- Girls
- day scholar

Item master

*piece wise

*dairy products

*vegtable

*kg

*litre

Supplier master

store a

- Store b
- Store c
- Store d
- Store e