

Hall Dining Manager Management Proposal

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Dining Manager Management

Project Goal: To create a simple web app that helps a dining manager easily track daily expenses and manage their dining operations more effectively.

The Problem: Tracking daily dining hall expenses across paper receipts and multiple spreadsheets is inefficient and makes it hard to maintain accurate financial control.

Our Solution: A clean, centralized website where the manager can log in, record every purchase, and see their spending in one place.

System Design

The diagrams below show the system's functionality and data structure.

Use Case Diagram: System Features

This diagram shows all the actions that Managers, Students, and Admins can perform.

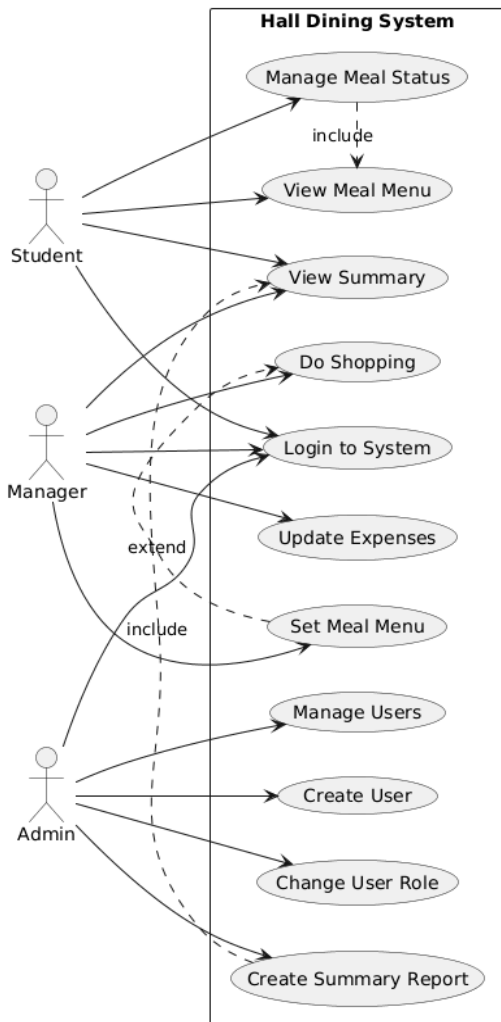


Fig01: Use Case Diagram

Class Diagram: Data Structure

This diagram shows how our data is organized and connected in the database.

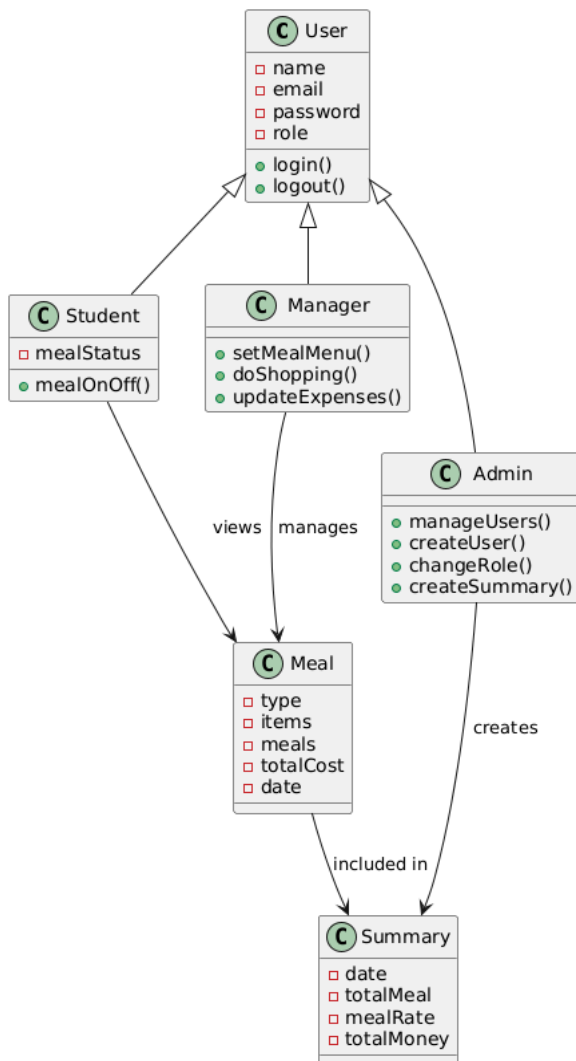


Fig02: Class Diagram

Key Features:

For the Manager:

Login/Logout: Secure access to their account.

Add Expenses: Quickly add new shopping costs.

Set the Menu: Plan and display the daily meal menu for students.

For Students:

View the Menu: Check what's for lunch/dinner each day.

Meal On-Off: Simply click to indicate if they will be having the meal.

For the Head Admin:

Manage Users: Add new managers or students to the system.

Generate Reports: Create summary reports of total spending and meal attendance over time.

What We'll Use to Build It:

Frontend: React.js

Backend: Express.js with TypeScript

Database: MongoDB

Project Plan Summary:

We will build this step-by-step:

1. **Planning & Design:** Finalize the list of features and design the system layout.
2. **Building the Core System:** Set up the database and server, then create the login and expense-tracking functions.
3. **Creating the Interface:** Build the web pages for the manager, students, and admin.
4. **Testing & Launch:** Thoroughly test all features and then launch the live application online.

End Result: A working web application that simplifies expense tracking and daily management for the dining hall.