



IUT CafeCache

Cafeteria E-Token & Wallet Management System

SOFTWARE PROJECT LAB-1

Team-12

Members:

Mahmudul Hossain Samir(230042101)

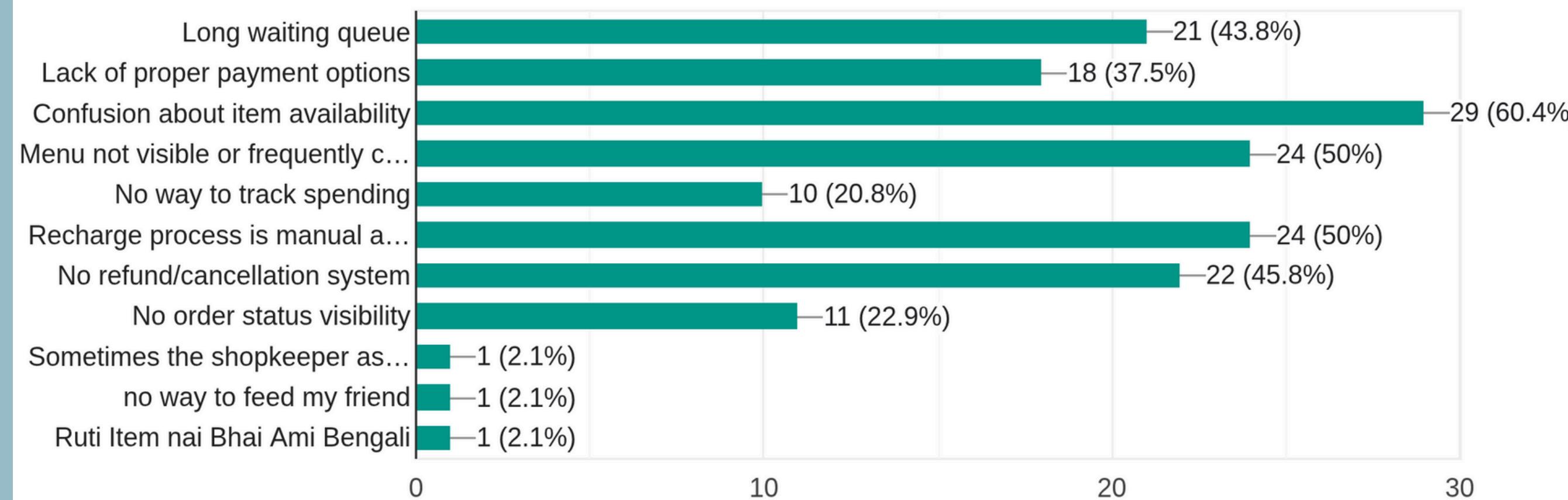
Tamjidur Rahman(230042109)

S.M Raiyan Al Arafat(230042134)

Problem Statement

3. What problems do you usually face in the cafeteria?(Multiple selections allowed)

48 responses



Main Points:

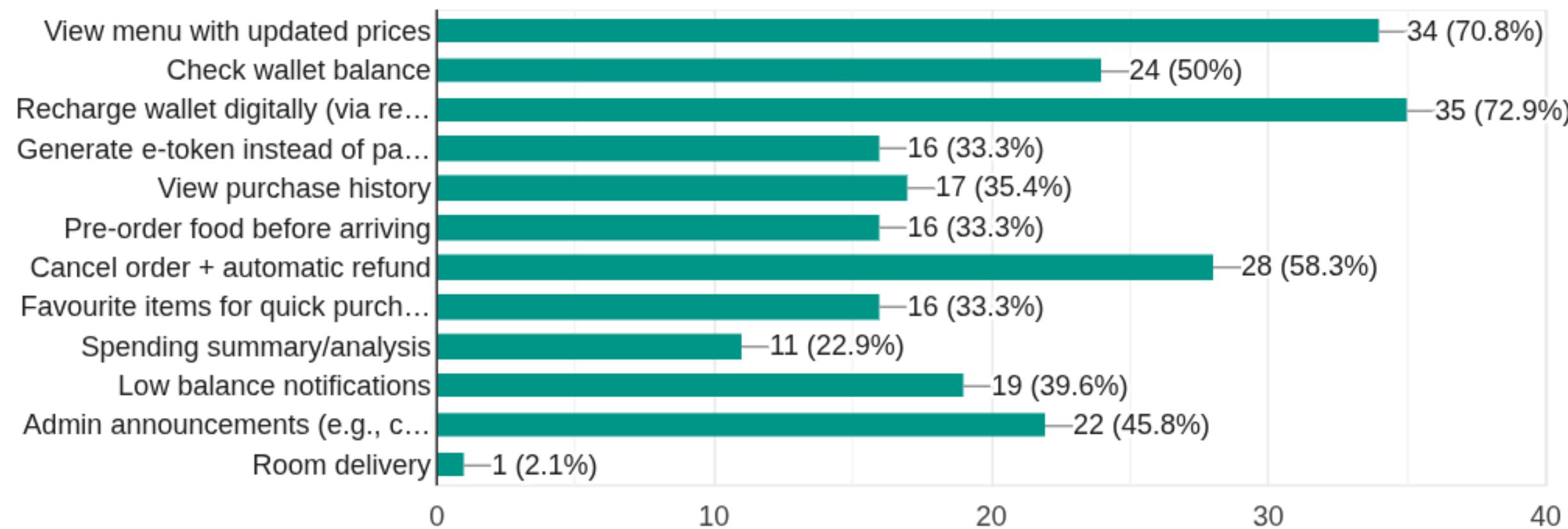
1. Long Queues
2. Unclear Menu
3. Less Transparency
4. Less Payment options

User Requirement Analysis

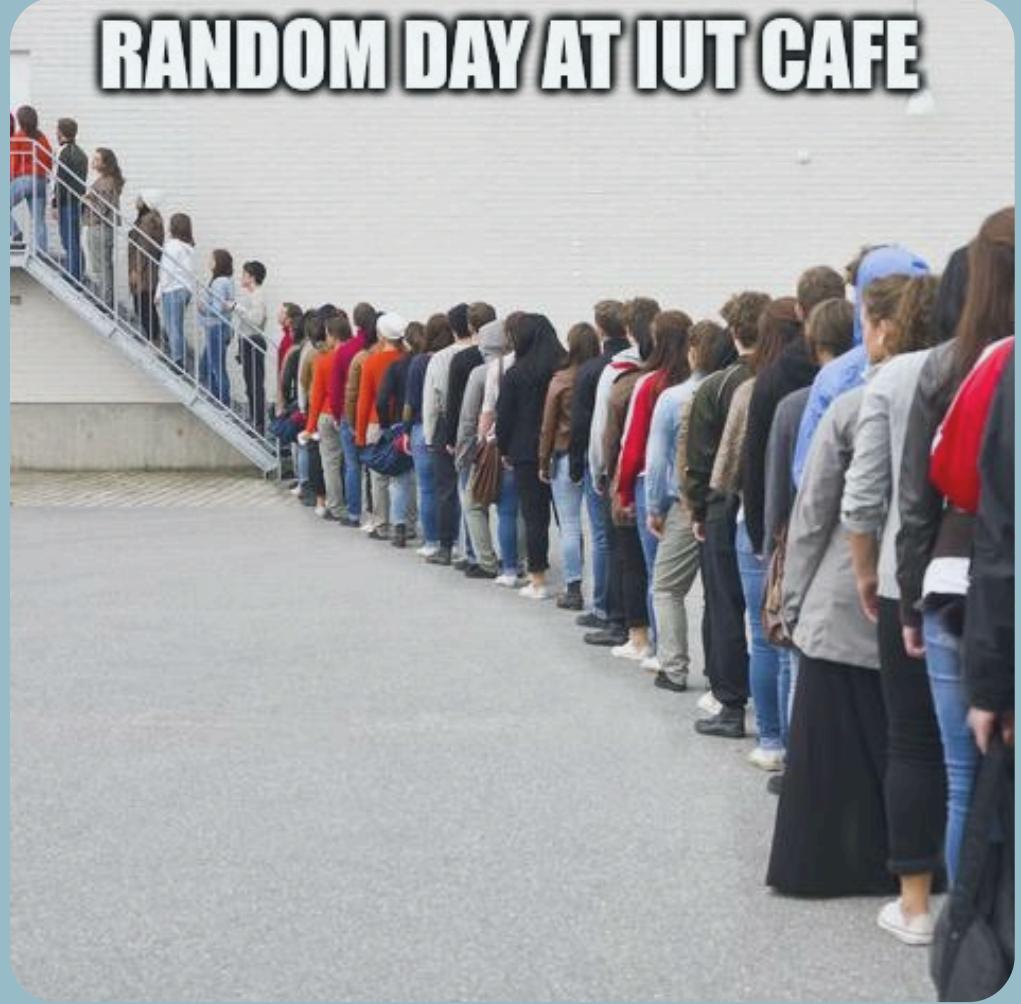
Evaluating Proposed Features

6. Which features would be most useful to you?

48 responses



**They want Transparent, Time efficient Cafe System !!!
with Flexible Payment Option**



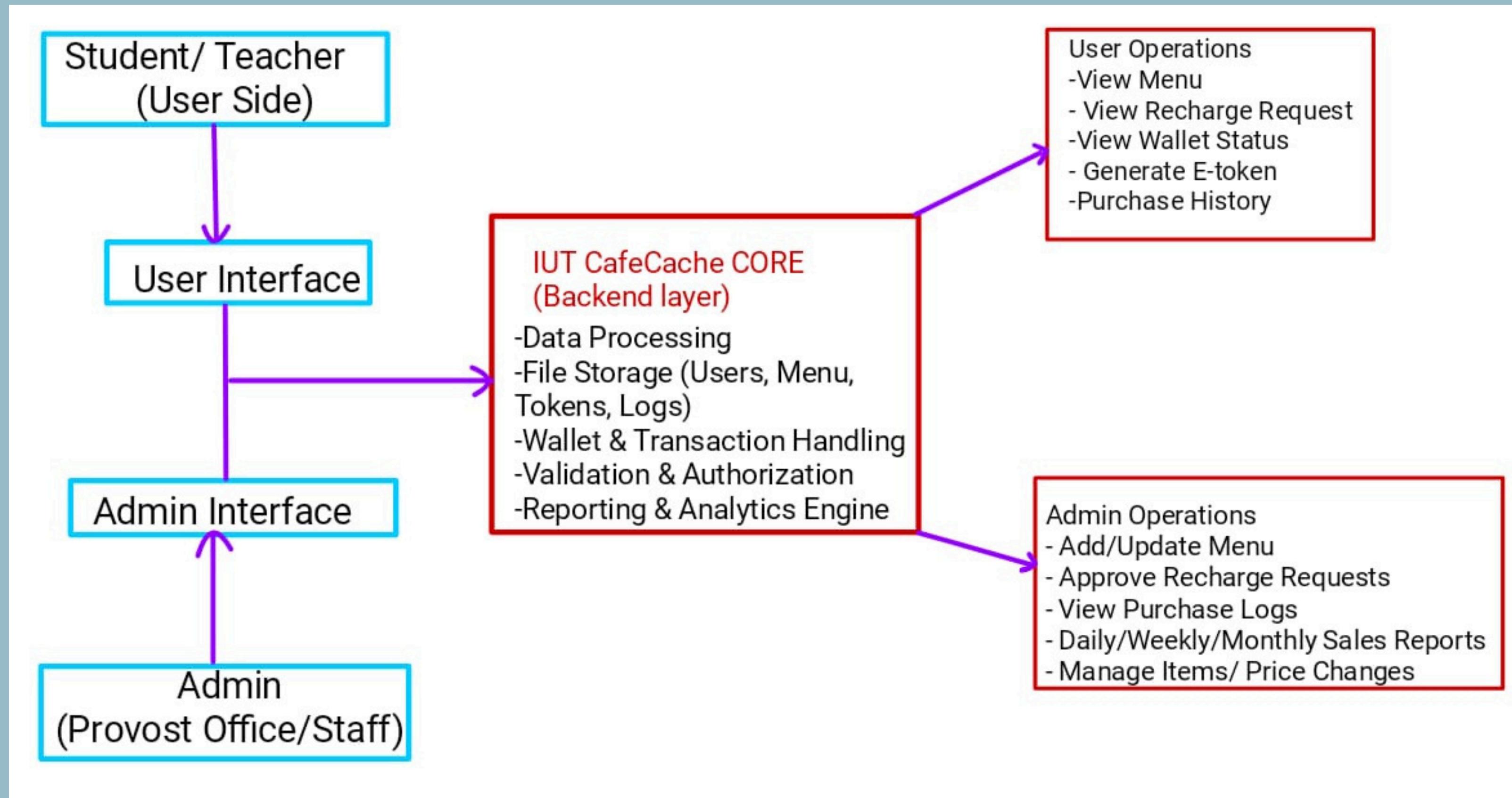
Motivation

User Centric Motivation: Long queues, manual tokens, cash handling issues, and no real-time insights. CaféCache solves these through a fully digital workflow.



Our Motivation: Building this system gives us hands-on experience with understanding a complete backend workflow from scratch.

Introduction to CafeCache



Key Features

User & Role Management Module

- Secure access with login, registration, profiles, and sessions.
- Role-based control with dashboards and permissions.

Menu Management Module

- Menu CRUD: add, edit, delete, and view items with live availability updates.
 - Food categories: organize items into breakfast, lunch, and dinner.
-

Token & Order Management Module

- Token & Orders: generate digital tokens, track status, and view order history.
- Cancellations & Refunds: users can cancel; staff/admin manage refunds.

Key Features

Payment & Billing Module

Wallet with balance, recharge, auto-debit, and transaction history.

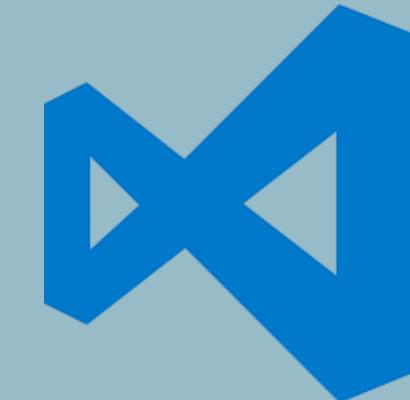
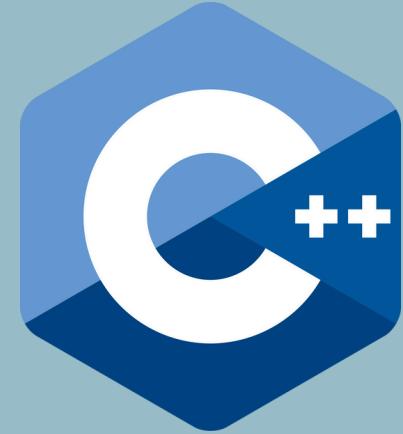
FILE-BASED DATABASE SYSTEM

Structured text files, auto-save/load, fully persistent and human-readable.

TRANSACTION & REPORTS

Logs, token tracking, analytics, revenue/item reports, and ASCII charts for item popularity, revenue trends, and hourly sales.

Key Technologies



PROGRAMMING LANGUAGE
C++

Development Environment
VS Code

Version Control
Git



TESTING
GOOGLE TEST FRAMEWORK

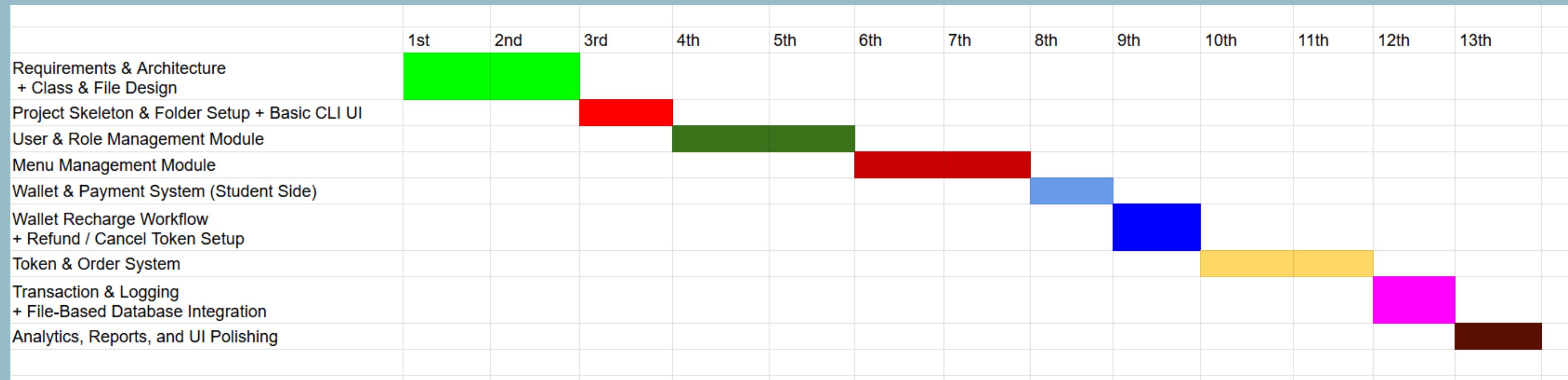


Github



Documentation
Google Docs

Proposed Timeline



MAYBE SUBJECTED TO CHANGES**

THANK YOU

Feel free to ask questions.