Project Charter - Team 2

Team Members: Kayoon Koh, Chelsea Lee, Joylyn Pan, Lilian Zhao

Project Title: ChipIn

Problem Statement:
Running a household with several roommates is difficult; one major challenge is maintaining an accurate inventory of shared items. Whether it's personal or shared groceries, cleaning supplies, or pet items, keeping track of what products need to be bought, replaced, or discarded prevents unnecessary purchases and reduces trips to the store. Splitting costs on top of bookkeeping for many housemates presents even more of a struggle. Unlike traditional financial management tools like Splitwise and shared grocery list apps like AnyList, ChipIn not only tracks expenses but also offers useful insights into the actual shared products within households, streamlining both cost-sharing and inventory management.

Project Objectives:
- Build a website that acts as a centralized platform for housemates to keep track of items in their shared living space and expenses owed
- Create household dashboards listing shared / private items and display them on a user-friendly webpage
- Develop a system to facilitate the sharing of items between users
- Implement user profile pages that keep track of shared expenses so that housemates can pay each other back
- Allow users to scan receipts to automate the logging of purchases
- Suggest meal ideas through an AI feature based on available ingredients
- Provide AI-based deal-finding tool for online shopping
- Notify users of expiration dates, low inventory of items, and household updates
- Provide an option for users to export grocery shopping trips and expiration dates as reminders on personal calendar
- Display statistics of top purchased / used items for individual users and households

Stakeholders:
- **Users**: People who want to keep track of items and expenses within shared living spaces
- **Developers**: Kayoon Koh, Chelsea Lee, Joylyn Pan, Lilian Zhao
- **Project Coordinator**: Leo Lin
- **Project Owners**: Kayoon Koh, Chelsea Lee, Joylyn Pan, Lilian Zhao

Project Deliverables:

- React front-end web app with pages for
    - Responsive user interface and navigation between core pages and functionality
        - Logging in
        - Selecting an active household
        - Adding/editing item details (shared/not shared, price, expiration date)
        - Interacting with AI-powered meal suggestion/deal finding tools
    - Dashboard with visualizations of
        - Grocery list (current inventory vs need to buy)
        - Household item log
        - Amount owed to each housemate
        - Expired item alerts
        - Purchase statistics for users and households
- NodeJS/Express backend that will handle
    - User authentication
    - API calls
        - Connecting to computer vision system, auth, etc.
    - Servicing network requests
    - Generate recipes / meal plans based on purchases
    - Web-scraper for finding most affordable item prices
- MongoDB database
    - Tracking users, households, items, etc
- Python API endpoint
    - Communicates with Express/Node backend
    - Computer vision text recognition for receipts automatically creates grocery listings