1. Introduction

Smart Restock is a mobile app designed to remove the tedium of manual shopping list construction. The general functionality of the mobile app will include: receipt scanning, image-to-text extraction, estimation and calculation of future purchases, and finally presenting the generated shopping list in a calendar. The prototype will be focused on Smart Restock's core functionality: Scanning receipts and extracting text data for use in the mobile application.

2. Product Description

Smart Restock is a mobile app solution designed to solve the issue of shopping list compilation. The main goals are to automate as much of the shopping list creation process as possible, while not hindering the user's ability to add new items or maintain seasonal purchases. Receipts will be scanned (with optional manual entry) to easily add new items and their estimated purchase history. Smart Restock will track the dates, estimate the next window for purchase, and help you keep track of what you do and don't have.

2.1. Key Product Features and Capabilities

The key innovation of the Smart Restock app is receipt scanning. Nearly all data is inserted into the app through this functionality, which will simultaneously take care of estimating future purchasing dates and keeping track of current inventory.

2.2. Major Components (Hardware/Software)

The main hardware required is a local SQL database running on the user's phone, which would send minimal data to a large scale mySQL database, to keep track of user profiles and sponsors for monetization. The main software components will be through Android's and iOS's unique image recognition software. OCR, ML Kit Text will be the main libraries used to extract the text data from the receipts. Flutter for the front-end using Dart as the language, with Java, using SQLite. Unless more machine-learning solutions are decided upon and further developed, we do not expect to need any other external libraries.

3. Identification of Case Study

The Smart Restock app is focused primarily on home customers; it is not intended for large-scale industrial use. Simply put, Smart Restock is an app specifically targeting individual users who want help managing their perishable foods and grocery lists.

4. Glossary

n/a

5. References

n/a