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Group Members: Raphael Chung, Tiffany Filawo, Sean Hung, Roma Paranjpe

StockSmart

Web Systems Development Project Proposal

Summary

A common problem for our population today - from college students, to new graduates, to first time home owners all the way to full families - is how to deal with excess. Excess in our world is generated due to the desire to spend wealth, and possess more and more each day. Soon enough, there is an abundance of a particular item, more than an individual or group of people can manage which leads to the pertinent question of how do we manage, and more importantly reduce what we have? This question gets harder for people to answer as their lives become more busy, and moreover, people do not know how to tackle this issue of excess. As we are living in a world undergoing a climate crisis, it is even more urgent to leverage technology to solve these problems that, once gone out of control, can have potentially irreversible effects.

StockSmart is a web application with the primary goal of reducing excess - but in the kitchen. The platform aims to promote mindfulness about food waste, sustainability,and smart living by helping people track items in their kitchen at present, the expiration date, and the status of the items. It also allows users to build grocery lists prior to shopping, and cross references these lists with the items already in the kitchen, to ensure that the individual is not buying something they already have. Furthermore, the application allows users to create a donation list, which consists of food items that the user feels they are not going to use in their kitchen, but are still in good condition. The hope is that rather than throwing the food out, the users will have an incentive to take these items to homeless shelters and food banks in the area. Our team hopes that this application will help manage excess in people's lives, but more importantly, help reduce the carbon footprint generated by food waste in an effort to protect the environment.

Users, Stakeholders, and Value

This app will benefit college students, who are busy with classes, studying, and extracurriculars by providing a system that allows them to electronically track their groceries.This application will alleviate stress for young adults who are newly graduated and overwhelmed with starting their first jobs by allowing them to start practicing efficient shopping and household food management habits. Young parents who have to take care of their newly born child often do not have time or energy to care for the excess in their kitchen. This platform will help new parents as well large families become more mindful about their spending by tracking their groceries and quantity of

items in the kitchen in order to prevent waste. As the bigger picture of this application is to promote sustainable, waste-free, and smart living, companies, nonprofits, foodbanks, and homeless shelters that advocate for these issues will also indirectly benefit from this, through our donation list feature, even though they are not the primary users. This feature allows users to add food that they do not see themselves finishing before the expiration date on a donation list which will ultimately help these organizations re-allocate food to those who need it. This will also help all users cut down on overall grocery spending by being more intentional when shopping.

Technology Stack

We plan to use php for the creation of the login page and create an account page so that it would be easier for users to register themselves and so we can maintain user information across multiple pages. mySQL and MariaDB will be used to store user information such as names, emails, grocery list logs, kitchen logs, and donation logs. The structure of the application will be implemented in HTML, and the styles will be implemented in CSS. Javascript will be used to create interactions like notifications and drop down menus. To host the site, we will be using XAMPP so people can easily see and access the website.

Functional and Non-Functional Requirements

StockSmart will have several functional requirements. The application will have a sign-in and create an account page upon first opening the application. After the user is in the system, the application will bring users to the “In My Kitchen” Page. On this page, the application will allow users to select a personal profile or group mode. They will also be able to select a food group from the food group pie chart and view and add items that are currently in their kitchen. In this log, they will also be able to view the status of items in their kitchen. The application will also allow users to “Add a friend” on this page. The user should be able to navigate to the “Grocery List” page and create a grocery list. Furthermore, they should be able to navigate to the “Donation List” tab and view the items they have chosen to donate. On the “In My Kitchen” page, users should be able to receive alerts for an item that is within a certain window of expiration from the current date. Lastly, users who are viewing the app in “Group Profile Mode” should be able to “Add a friend”, and the collective group should be able to view and edit a common “In my Kitchen List”, “Grocery List”, and “Donation List”.

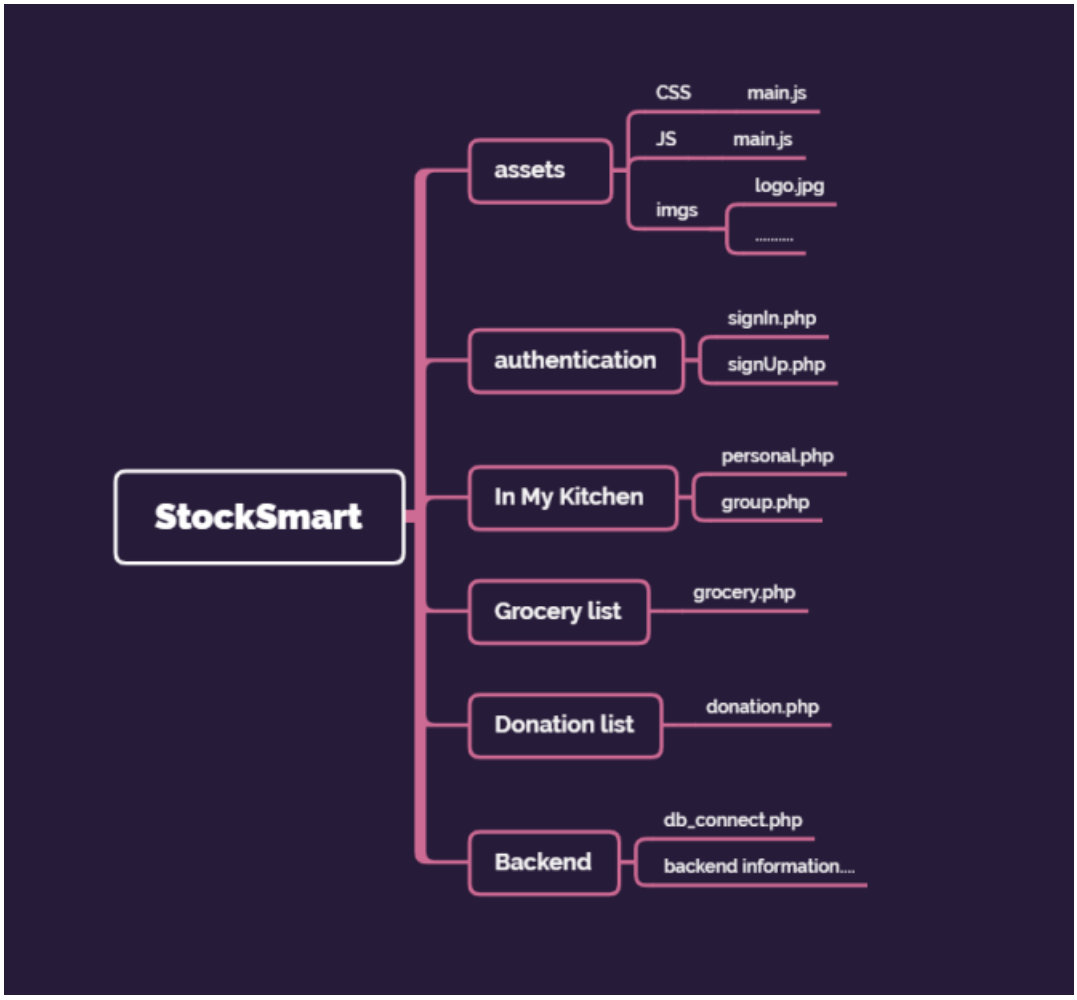
In order for StockSmart to be of value, there are nonfunctional requirements that need to be considered. In terms of usability, the application will be easy to navigate with a signage system that uses common icons and symbols to provide a quality user experience. Furthermore, StockSmart’s wide user base makes accessibility and security ever so important. To ensure these requirements are met, the application will ensure

user credentials are secure, and that the application can be used on Firefox and Chrome browsers. Additionally, while the user is in personal profile mode, the application will ensure that “friends” only have view access, while giving “edit” access to friends if the user is in group mode. Finally, StockSmart’s performance and reliability will be ensured by fast load times, timely notifications and consistency of information even if the user visits the app at different times of the day.

Project Schedule

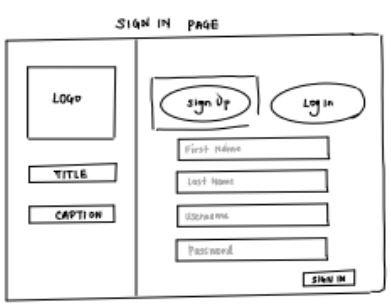
Task	**Finish by (approximate)**	**People**
Project proposal and presentation	Friday, 9/16	Everyone
Create sign in and login pages with php	Sunday, 9/26	Roma
Set up mySQL and MariaDB databases for users and then test it	Sunday 9/26	Roma
Create in my kitchen page for group and personal pages(necessary PHP, HTML, JS)	Sunday, 10/3	Sean
Setup mySQL/MariaDB database for kitchen logs and group members and test with “In My Kitchen Page”	Sunday, 10/3	Sean
Create the “Grocery List” page (necessary PHP, HTML, JS)	Sunday, 10/7	Raphael
Set up mySQL/MariaDB database for groceries lists	Sunday, 10/7	Raphael
Create the “Donation List” page (necessary PHP, HTML, JS)	Sunday, 10/14	Tiffany
Set up the mySQL/MariaDB database for donation lists.	Sunday, 10/14	Tiffany
Link all the pages	Sunday, 10/21	Everyone
Test current state of application users	Sunday, 10/28	Everyone
Make any necessary changes based on usability tests	Sunday, 11/7	Everyone
Add CSS to the application + any other issues to fix	Sunday,11/21	Everyone
Host the site using XAMPP	Tuesday, 11/23	Everyone
Safety Days	11/23/2021 - 12/2/2021	-
Final Project Due	12/3/2021 and 12/7/2021	Everyone

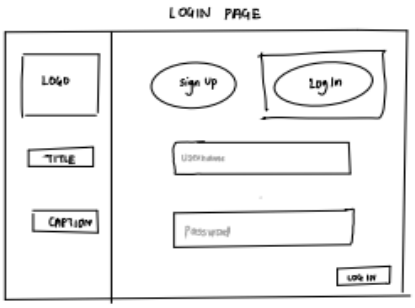
Site Map

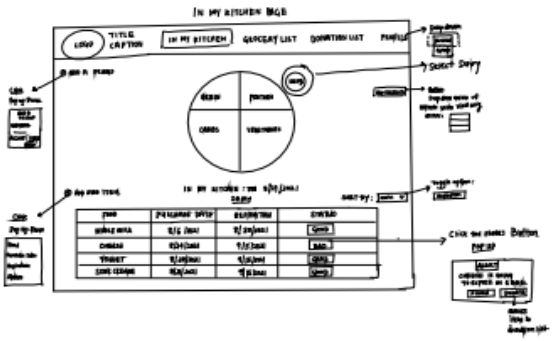

StockSmart
assets
CSS
main.js
JS
main.js
imgs
logo.jpg
.....
authentication
signIn.php
signUp.php
In My Kitchen
personal.php
group.php
Grocery list
grocery.php
Donation list
donation.php
Backend
db_connect.php
backend information....

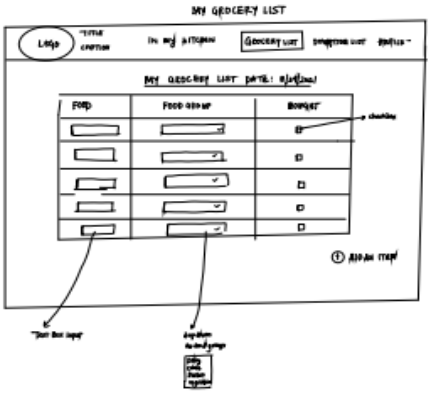
Wireframes

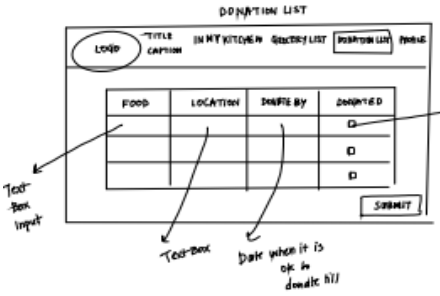
Low Fidelity Wireframe

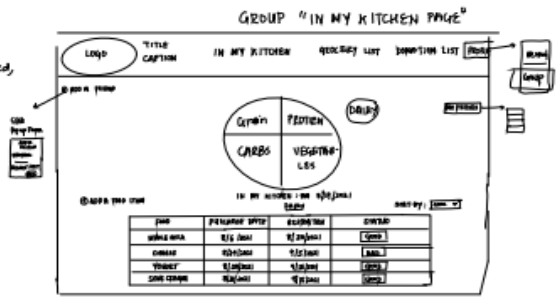




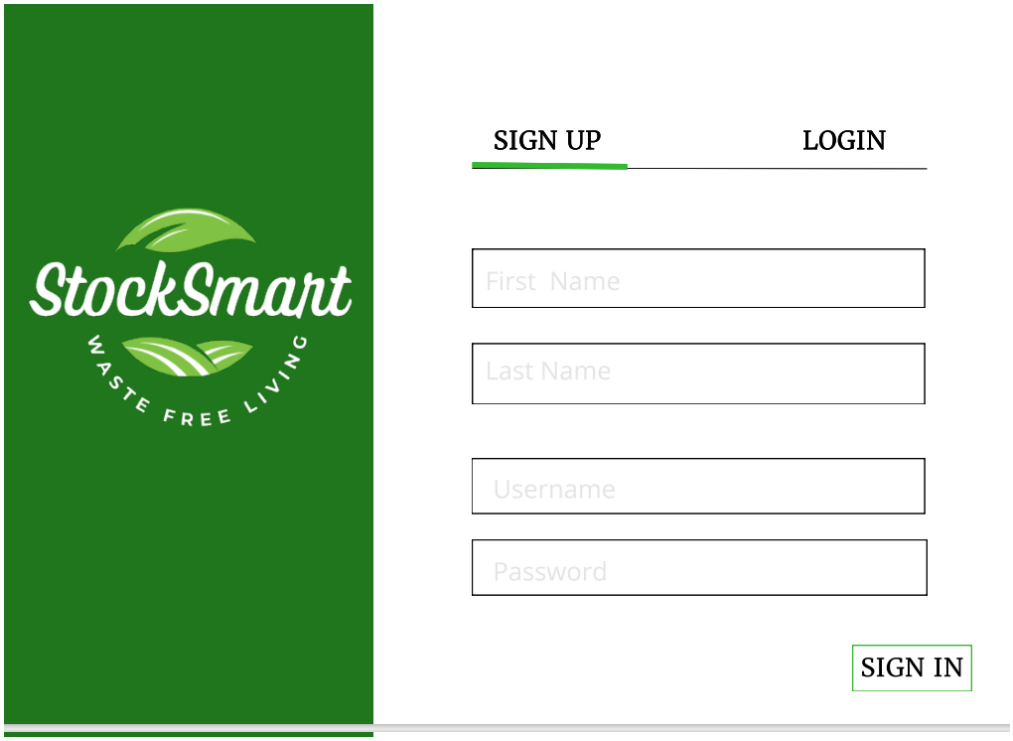


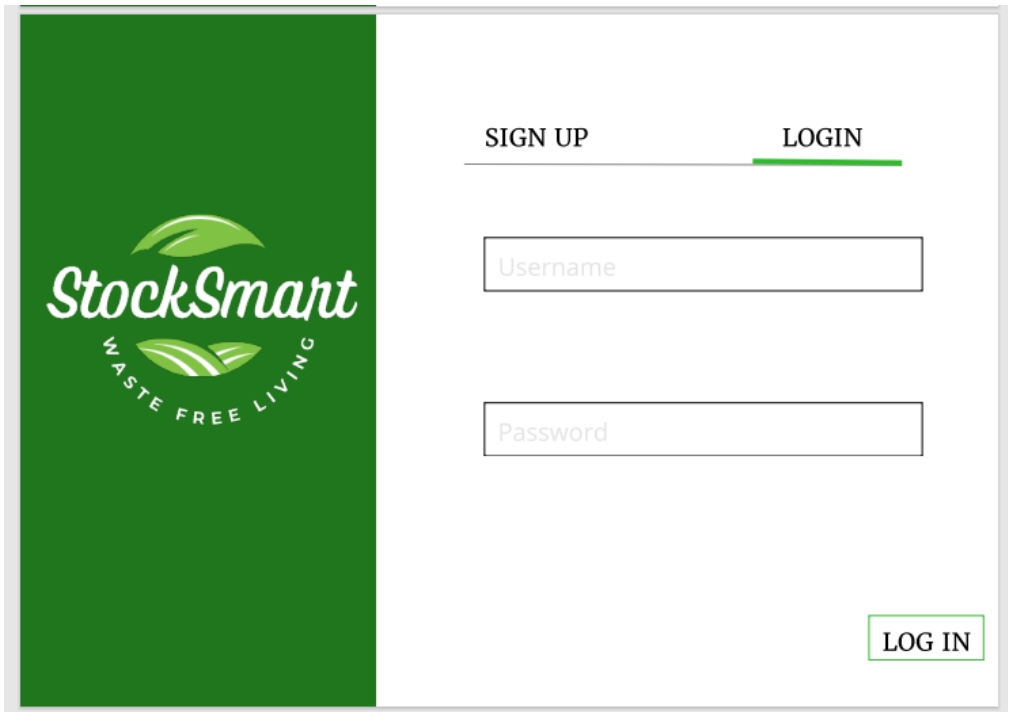






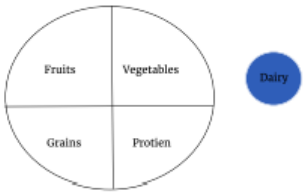
High Fidelity Wireframe





StockSmart | IN MY KITCHEN | GROCERY LIST | DONATION LIST | PROFILE

ADD A FRIEND



MY FRIENDS

ADD A FOOD ITEM

IN MY KITCHEN: 8/29/21

FOOD GROUP: DAIRY SORT BY

FOOD	PURCHASE DATE	EXPIRATION	STATUS
Whole Milk	8/20/21	9/10/21	
Cheese	8/20/21	9/11/21	
Sour Cream	8/5/21	8/30/21	
Ice Cream	8/5/21	8/30/21	

StockSmart | IN MY KITCHEN | GROCERY LIST | DONATION LIST | PROFILE

MY GROCERY LIST: 8/29/21

FOOD	FOOD GROUP	BOUGHT	ADD TO KITCHEN
Almond Milk	Dairy	☐	☐
Tomatoes	Vegetables	☐	☐
Apples	Fruit	☐	☐
		☐	☐

Add an Item

TikTok Link :
https://www.tiktok.com/@websystemsgroup72021/video/7008359383285402886?lang=zh-Hant-TW&is_copy_url=0&is_from_webapp=v1&sender_device=pc&sender_web_id=7008260722610849286