SW Engineering CSC648/848 2019

Milestone 2

TEAM 102

“EzySort”

- IBRAHIM ABOUDAMOUS - TEAM LEAD

ibrahimaboudamous@gmail.com

Abdi Mohamud[Backend lead]

Carolyn Chen [Scrum/Frontend]

Tianrong Zhen[Frontend lead/Github Master]

Anne Lanaza[Frontend]

Surabhi Chavan[Frontend]

John Sabour[Backend]

Date	Version	Description
10/25/19	1.0	First Draft

1. Data Definitions V2:

Non-Registered Users:

A Non-Registered user lacks many of the interactive functions that a registered user would have. They can only view the website, but not access any refrigerators or create any items. Their role is to view the website and leave. As such, the database is not concerned with their presence on the website whatsoever.

Functionality: Has the ability to browse but not access any of the material.

Customer Users:

A Customer User is categorized as a registered user. In addition to all the powers of a registered user, they have the ability to create **Item Posts**. These item posts are contained within the **Refrigerator Posts**, and contain the contents of their refrigerator at home.

Functionality: Has the ability to view and access all content, as well as be able to create and view items on the shopping list and report pages.

Attributes:

- Username (Primary Key) (String)
- Password (String)
- First name (String)
- Last name (String)
- Email Address (String)
- Number of items in refrigerator (Integer)

- Number of items on shopping list (Integer)

Administrator Users:

An Administrator User is categorized as a registered user. In addition to all the powers of a registered user, they have the ability to create **Refrigerator Posts**. The administrators role is to approve/deny **Customer User** accounts and associate them to a **Refrigerator Post**.

Functionality: Have the ability to view and access every part of the website, with the exception of that stored within a customer's refrigerator. Has the ability to approve/deny a customer user, as well as create a refrigerator item.

Attributes:

- Username (Primary Key) (String)
- Password (String)
- First name (String)
- Last name (String)
- Email Address (String)
- Number of refrigerator items (Integer)
- Number of Customers (Integer)

2. Functional Requirements V2:

Priority 1:

1.1 Users can register an account.

- Users will need to input personal information like Email, name, age, family size and etc. to create an account.

- The user also needs to set up a password for the account.

1.2 User can add items by scan receipts, Barcode, text input or voice input.

- Save information like name, expiration date, quantity, price and etc.

1.3 User can remove and edit items

- Remove items by select and click remove.
- Edit items: Able to change the expiration date and quantity of an item.

1.4 Users can check what they have in the refrigerator.

- Showing all items and it's basic information.

1.5 User will be notified before items expire.

1.6 User can search recipes based on an item.

- If the user inputs an item by scan receipts, he can check the recipe by clicking the item.

1.7 Users can create a shopping list.

1.8 User can view the Monthly report.

- How much they spent, what is going to expire, what they ate, etc.

Priority 2:

2.1 Add family members to the account.

- Users can add family members to their account so everyone in the family is able to edit items.

2.2 Share shopping list with others.

- Able to share the shopping list they created using Email or message.

2.3 Recommend items and Recommend shopping list.

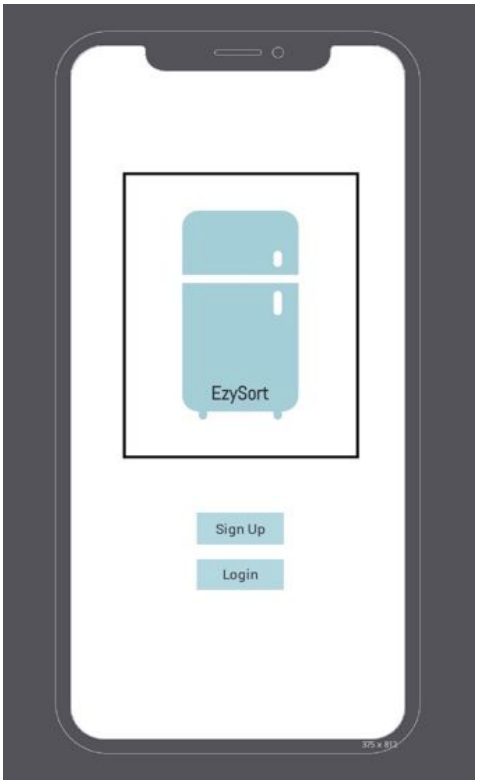
- Recommend items based on their health plan.

2.4 Calories counter

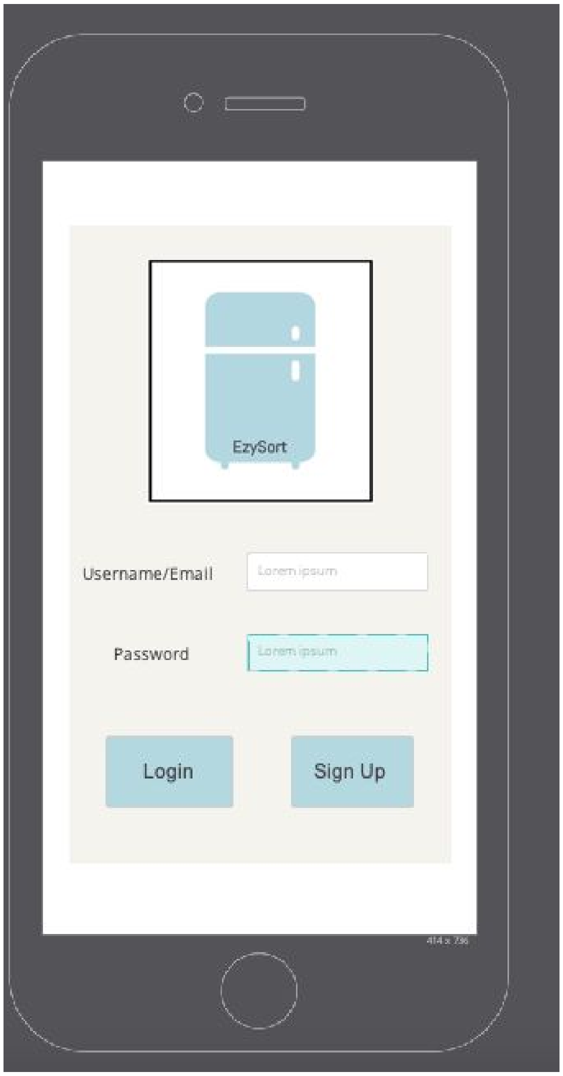
3. UI Mockups and Storyboards:

Welcome Page

- The user is introduced with a welcome page that has the logo and an option to either click on the login in or sign up button.
- If the user does not have an account he/she clicks on Sign Up and is directed to the sign up page where they can create an account.
- If they already have an account they can click on Login and are redirected to the login page to enter their credentials.



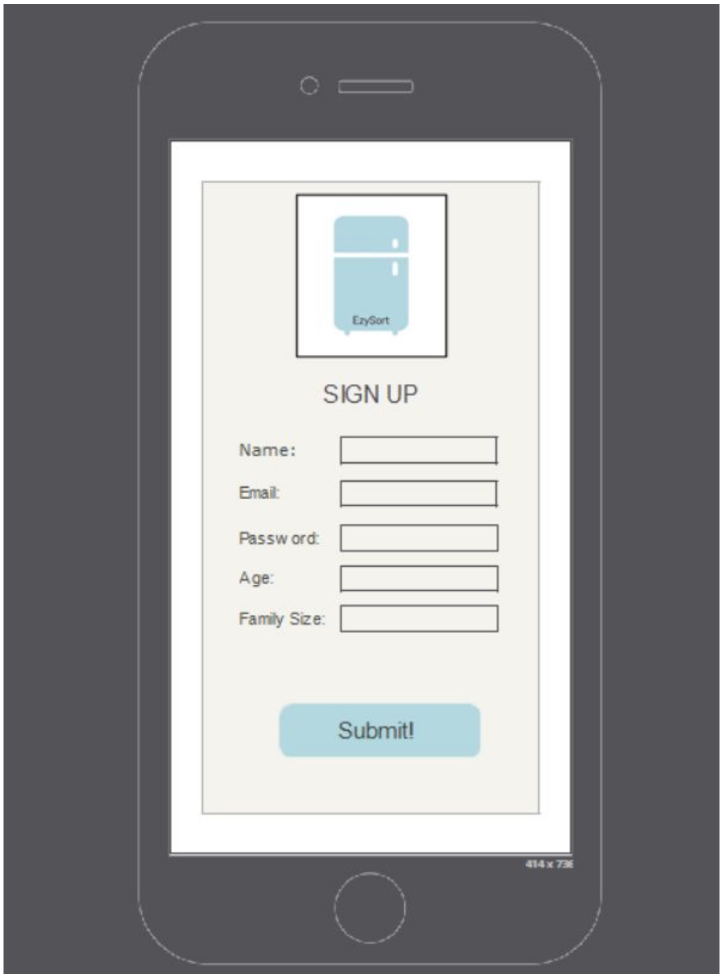
Log-in Page



- After the user clicks Log-in, they will go to the Log-in page.
- We will have our logo again.
- User can input their username or email to log in

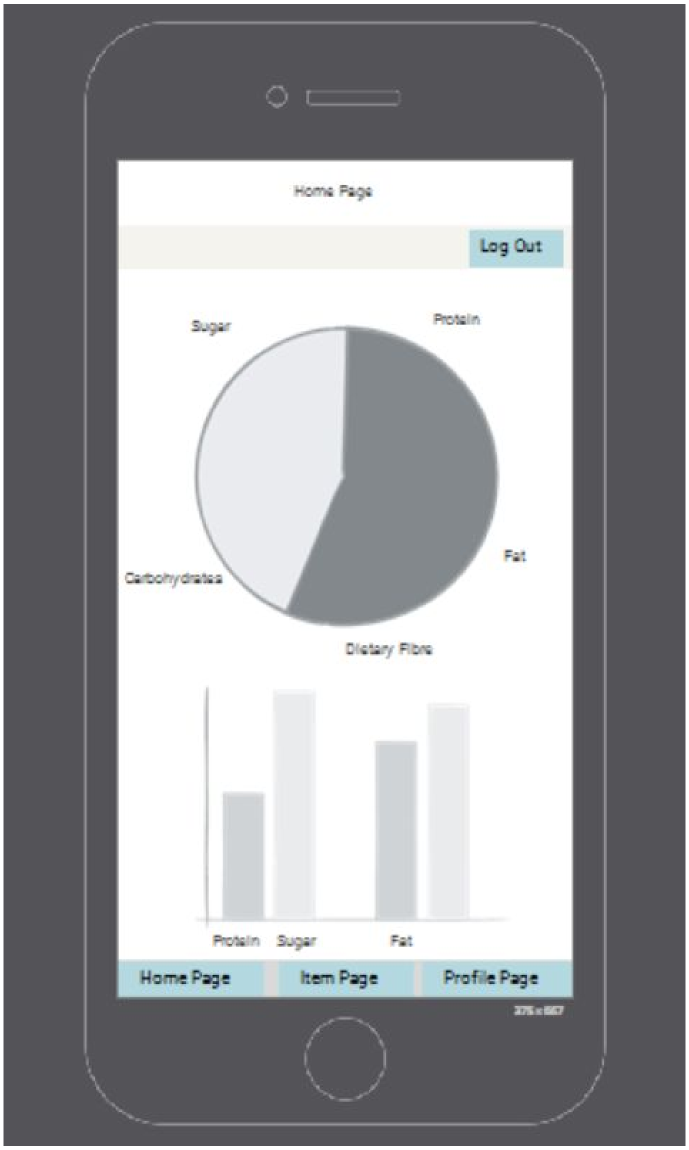
- After the input password, the user will click the Login button to enter their account.
- If the user did not create an account before, he can click on the Sign Up button to sign up for an account.

Sign-up Page



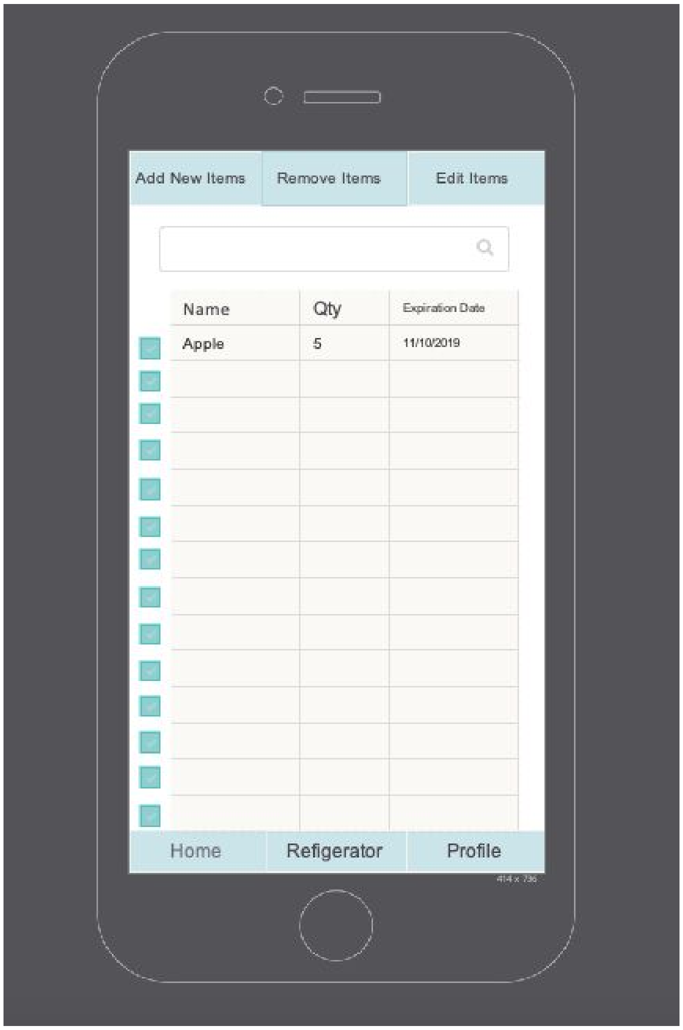
- After the user clicks to sign up for the application, they will be led to this page.
- The app will ask for basic information. Name, password, email, their age and the size of their family.
- After clicking submit, if all info are correct (e.g. age should be a number) then the user can move on to using the application

Home Page



- The home page will show the user some of the important nutrients he/she consumes each day.
- From here, the user can easily access the other pages such as the item page and the about page by using the dropdown menu.
- There is a log-out button where the user can log out.

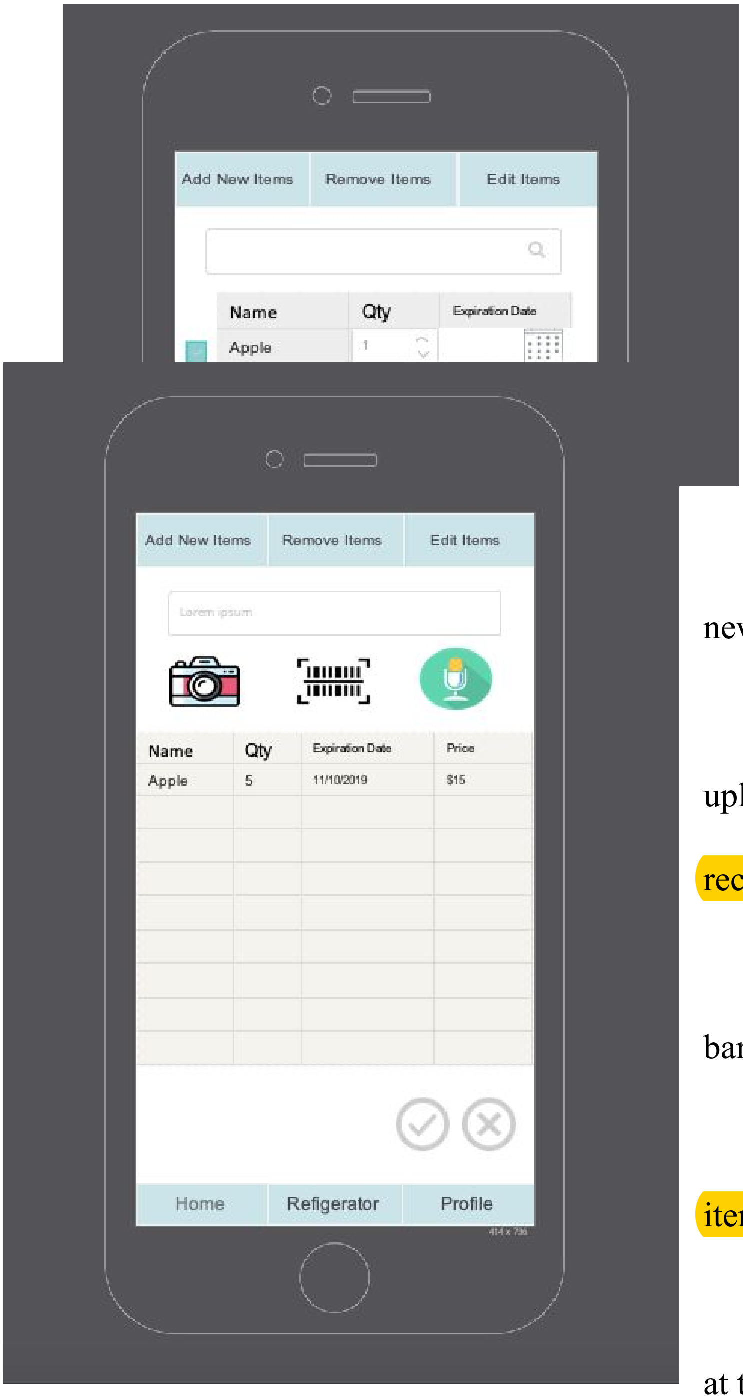
Refrigerator



Name	Qty	Expiration Date
Apple	5	11/10/2019

- The Refrigerator page is the main page of our website.
- User can see what they have in the refrigerator from the table. Included items' name, quantity, and expiration date.
- User can click on the item name to check the receipt of the item.
- User can click the check before the item and press Remove items to remove it.

- After click on edit items button, user can change the quantity and expiration date of the item.



Name	Qty	Expiration Date
Apple	1	

Name	Qty	Expiration Date	Price
Apple	5	11/10/2019	$15

- Add new item button will open another page.

Add New Items

- User can add new items in this page.

- The input text box allows users add new items by text input.

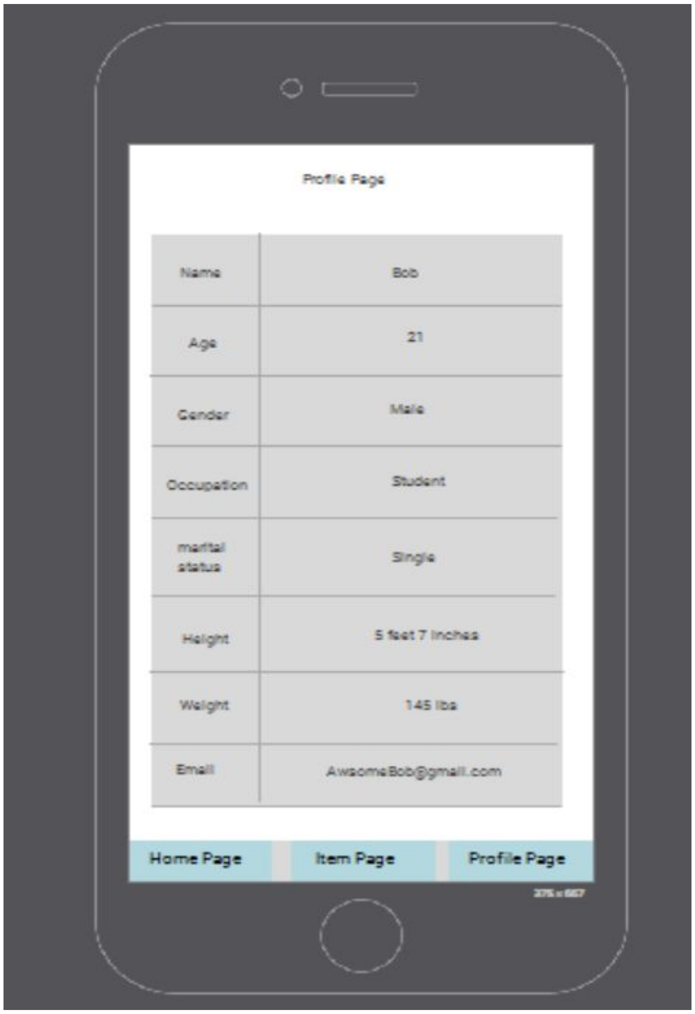
- User can also click on camera icon to upload image or take a picture of their receipt.

- Click on the barcode icon to scan the barcode of the item.

- The Voice input allow user add new item by saying it.

- After user input an item. It will show at the table below with some basic information. User can click the check at the bottom to add everything into the refrigerator or use the cross to delete the item that they don’t want.

Profile


Profile Page

Name	Bob
Age	21
Gender	Male
Occupation	Student
marital status	Single
Height	5 feet 7 inches
Weight	145 lbs
Email	AwsomeBob@gmail.com

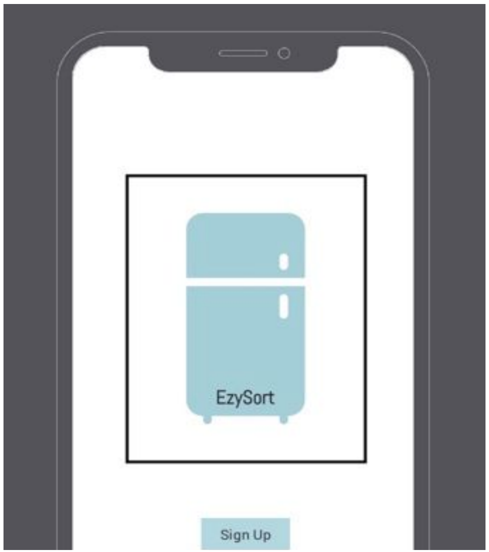
- The profile page show the personal information of the user
- The user can update his/her personal information on this page
- The user can access other pages from this page

Storyboards

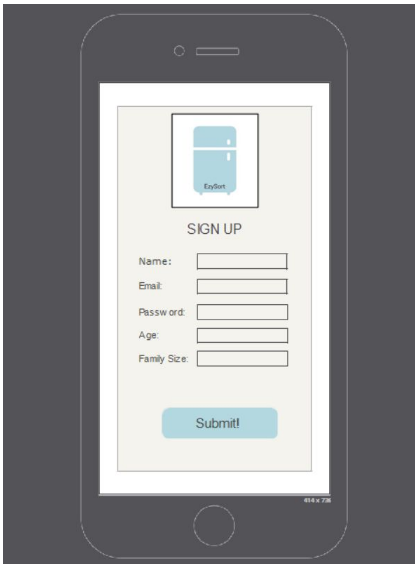
- Userstory1

Derek - Derek is a sophomore at San Jose State University. Living outside of school with his girlfriend and a cat. As a college student, he got a lot of homework, projects, and exams every week; he likes to play video games and watch gaming videos during his free time. His friend recommended him to use a website to help him origanze his refrigerator.

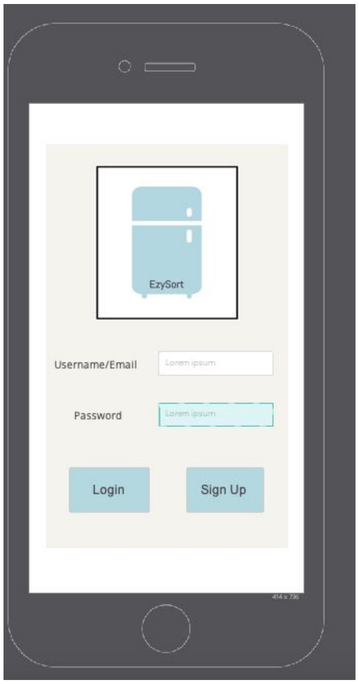
1. Derek click on the link of EzySort and saw the welcome page of the website. Derek has never used the web application before so he click sign up and registers for an account.



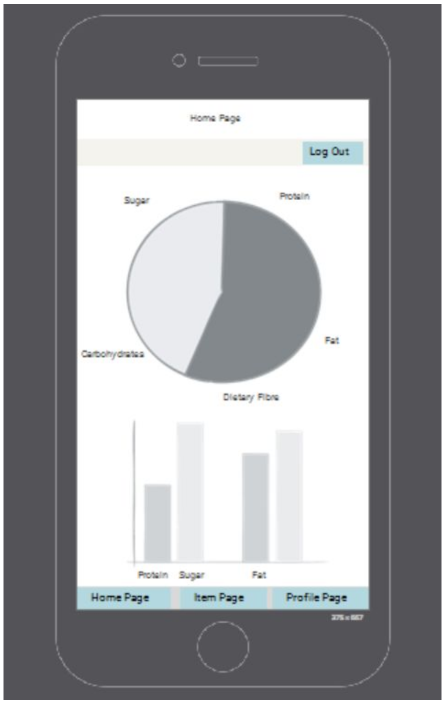
2. He filled in his information included name, email, password, and family size to create an account.



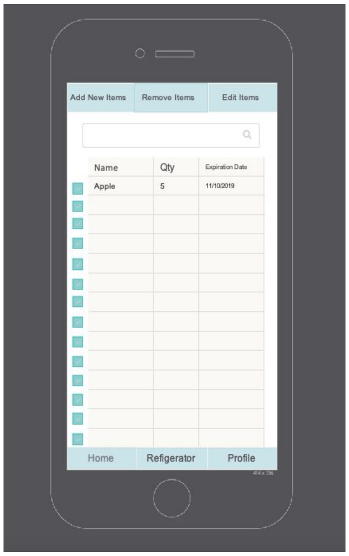
3. He went back to welcome page and click log-in this time to log into his account using his email and password he just created.



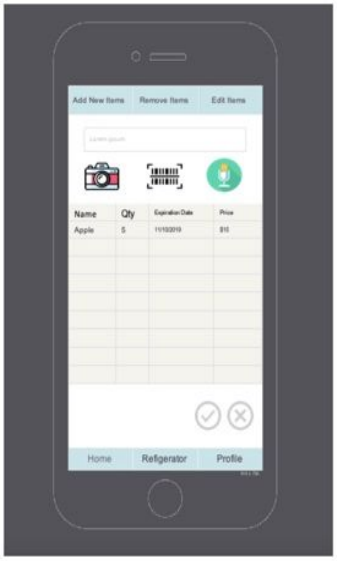
4. After login, he saw the homepage of the website. It included some graphics of basic information of his refrigerator but since this is the first he uses it, no information in the chart.



5. He click on The Refrigerator button and go to the item page. He click on the Add button to start adding items into his refrigerator by scanning his receipt.



Name	Qty	Expiration Date
Apple	5	11/10/2019



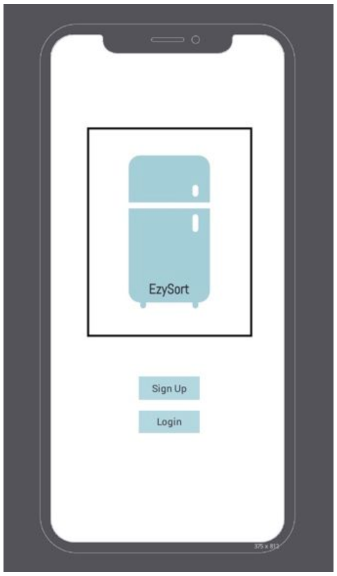
Name	Qty	Expiration Date	Price
Apple	5	11/10/2019	$10

- <u>User story2</u>

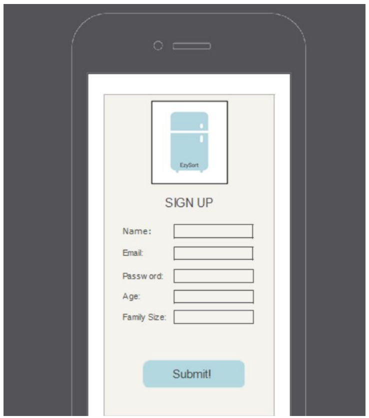
Candice: Candice is a fifty-year-old mother of 2 children. Candice owns a pre-school so she has a lot of responsibilities to take care of. Candice has recently had a lot of problems in keeping up with expiration dates for the refrigerator meant to keep food for the preschoolers. Candice is not the best when it comes to using high-tech products but is extremely interested in learning and finding solutions.

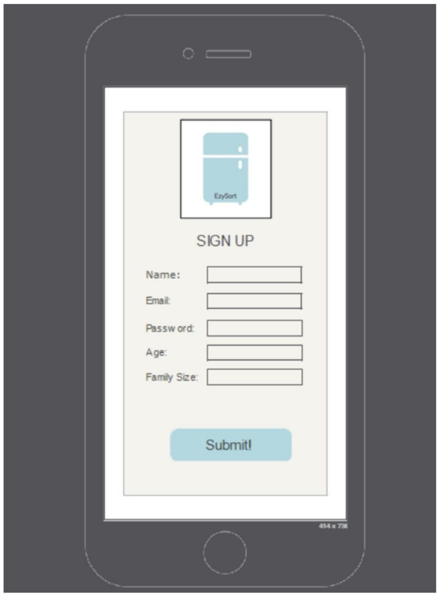
Since she is not the best with high-tech products an easy user friendly UI is what she looks for in a product.

1. Candice would like to create an account so she clicks on sign up



2. She enters her information on the sign up page including her Name, Email, password, Age and family Size and then clicks on submit.
3.





SIGN UP

Name:

Email:

Password:

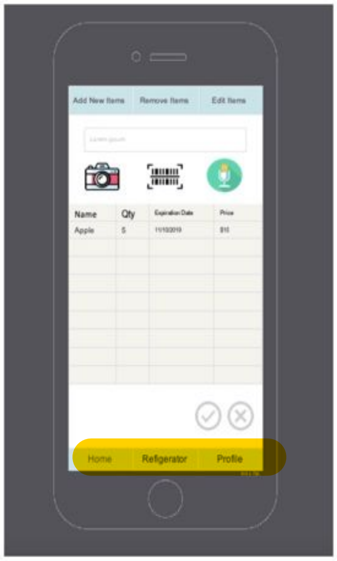
Age:

Family Size:

Submit!

4. She then enters the homepage where she can see the add, remove and edit items tabs. she clicks on her refrigerator to view the items she has.

5. She starts adding items that she bought for the preschoolers.

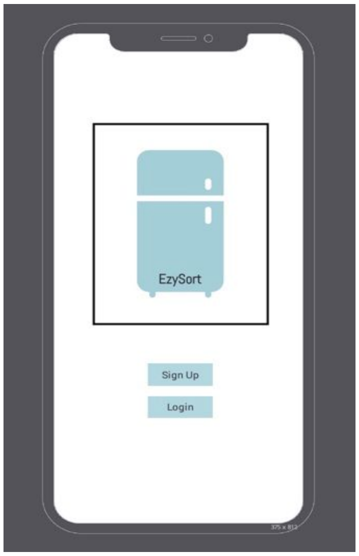


Name	Qty	Expiration Date	Price
Apple	5	11/10/2019	$10

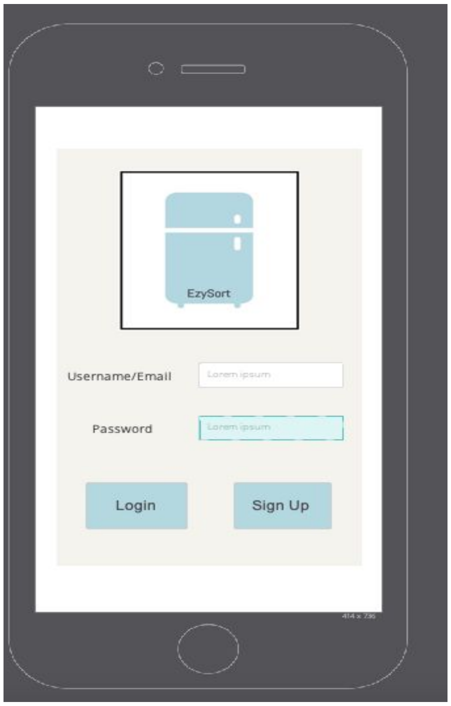
- User story 3

Lina is working at a game company as a game tester. She lives alone and works overtime almost every week so she usually eats outside or using food delivery services. She may over-order foods sometimes, therefore, she got lots of leftovers in the refrigerator. She wants to have something to help her keep track of the day she put them into the refrigerator.

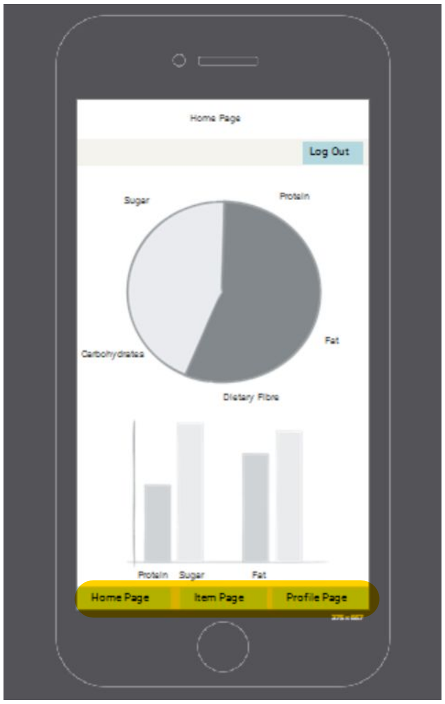
1) Lina is a registered user of the app, so she clicks login



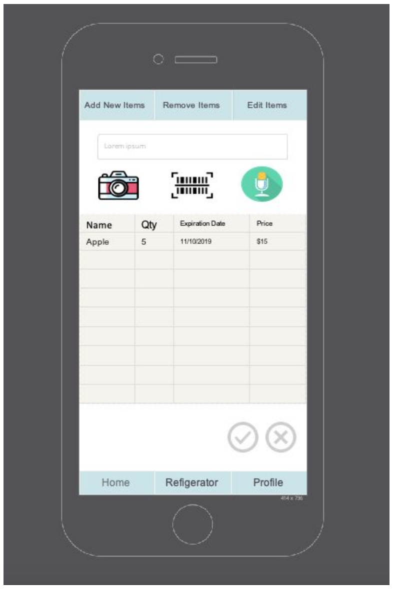
2) She logs in to her account by using her email and password



3) At the homepage, she clicks on the item page to view the items she has in store in her refrigerator



4) She sees that one of her items is about to expire and decides to have that as her dinner, so she takes that one out to by clicking remove item



Name	Qty	Expiration Date	Price
Apple	5	11/10/2019	$15

4. High-level Architecture, Database Organization:

Database Organization

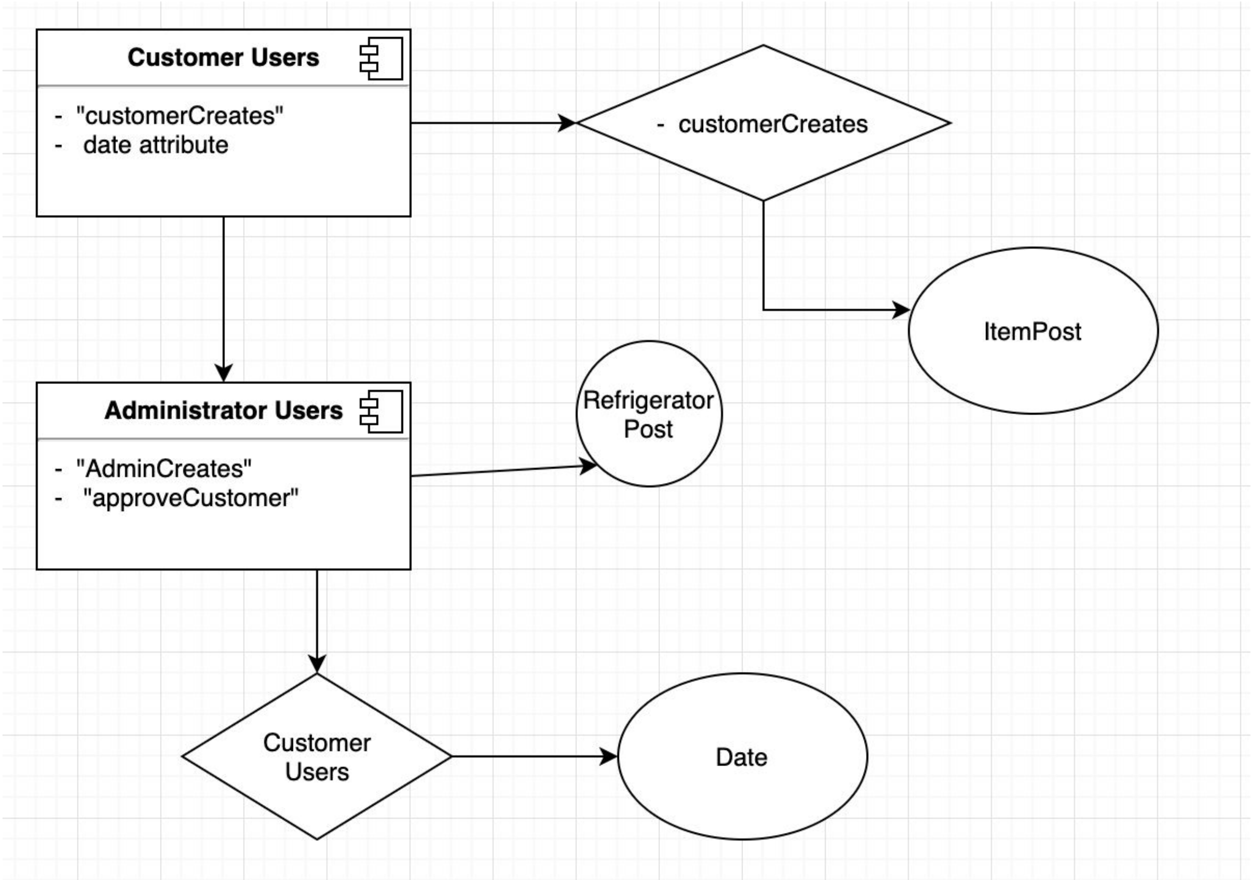
Our database will be organized as follows:

3 User Entity Types: **Administrator Users, Users, Customer Users, 'Non-Registered Users',**

1 Post Type: **RefrigeratorPosts, Item Posts**

- The **Administrator Users** have an "AdminCreates" relationship with the **Refrigerator Posts**. The **Refrigerator Post** is a weak entity, as it can only be created by the **Administrator Users**.
- The **Administrator Users** have an "approveCustomer" relationship with the **Customer Users** entity. This relationship has a date attribute.

- The **Customer Users** have a "customerCreates" relationship with the **Item Posts**. The **Item Post** is a weak entity, as it can only be created by the **Customer Users**. The **Customer Users can have none or many Item Posts**. This relation has a date attribute.



File Storage

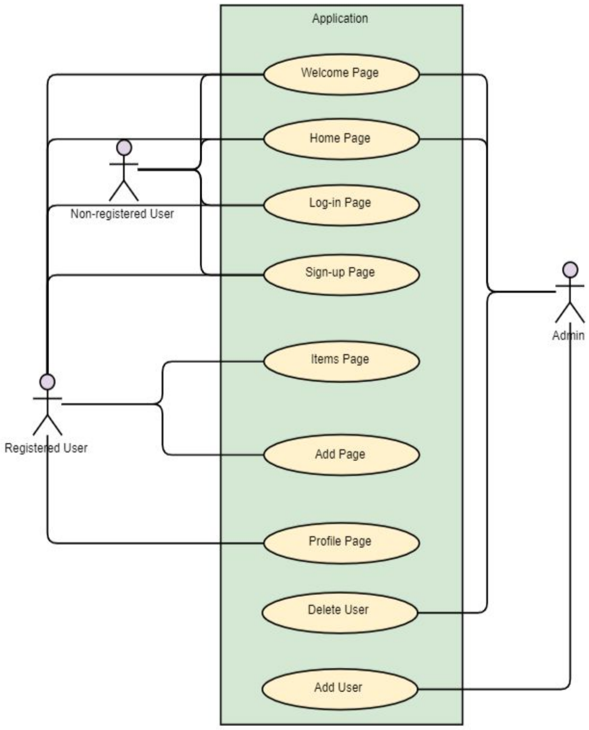
Our website will take in images of any type of receipt with an image size cap of 50 mb. In the database the image is saved as a path to the actual image file which is in a 'File' folder on the server. Authorized users such as the Authorized Users and the Administrators have the ability to upload images to the website.

Updates in Software

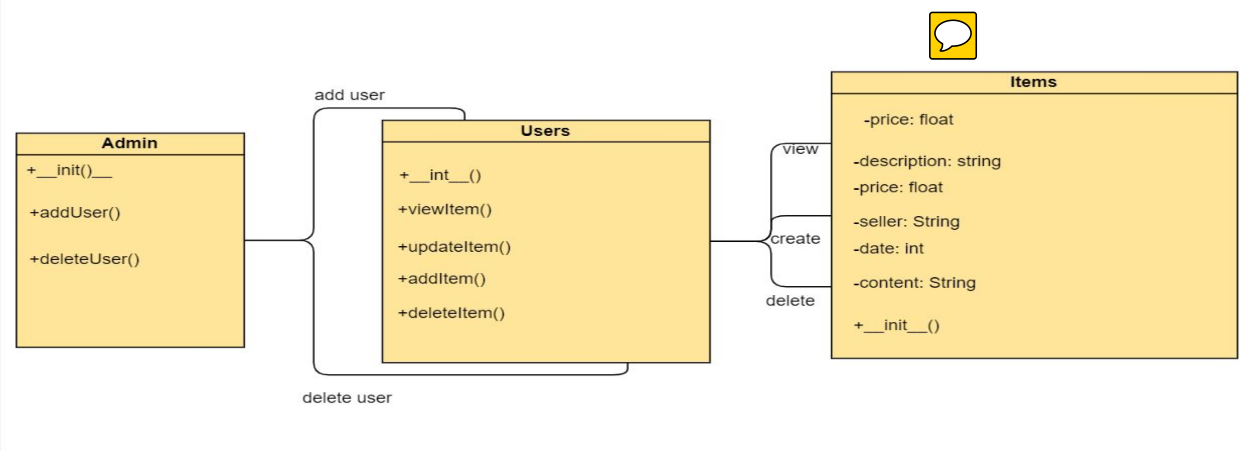
- Django library are added in order to further improve upon the native Django search functionalities.
- Mysql.connector is a MySQL library that was added in order to connect the database to the server.

5. High-Level UML Diagrams:

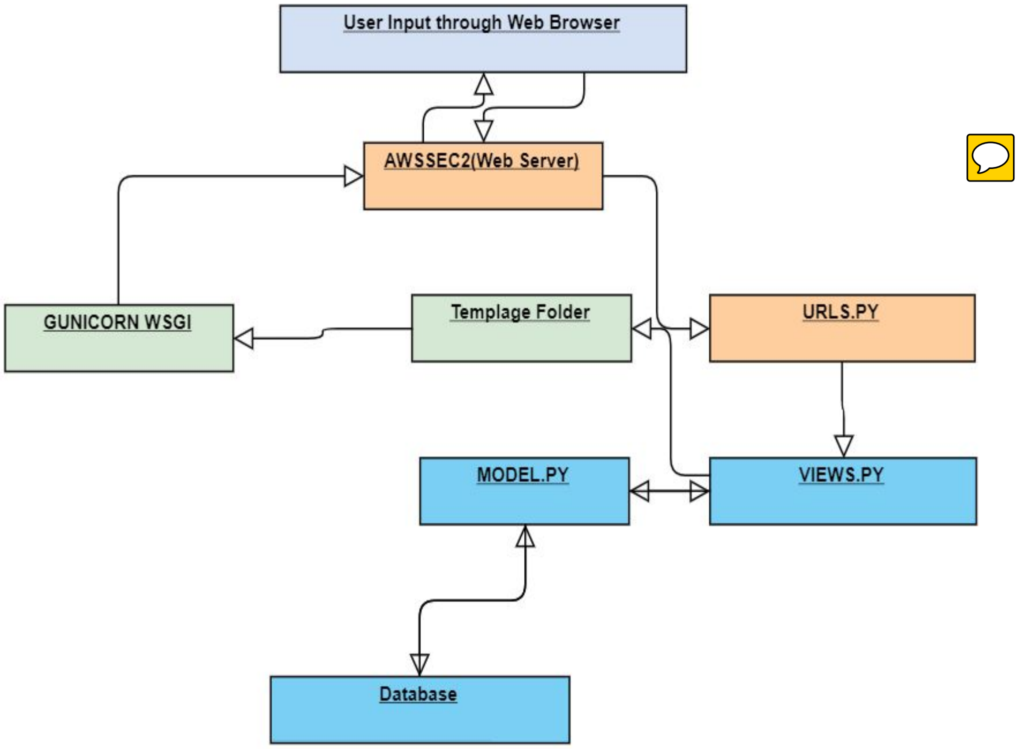
a. Use Case Diagram



b. UML Class Diagrams



c. UML Deployment Diagrams



6. Key Risks for the Project:

Skill Risks:

Many of the members of the team are not familiar with the Django framework and MySQL database that is to be used in this milestone. It will take some time for members to be versed in the material to the point where they will be able to tackle problems as they arise. With the vertical prototype, members will be able to identify the gaps in their skillset and remedy this issue.

Schedule Risks:

As senior students at SFSU, the team members have very little excess time to dedicate to the project. Meeting with each other in person is difficult due to the differences in class schedules and availabilities. Communication with group members both online and in person is done by planning multiple days in advance. In order to maximize the efficiency of group meetings utilizing various communicative means such as slack is essential.

Technical Risks:

Although many of the members are not experienced in putting together a fully functional website, there are many precautions taken to minimize potential risks. Members have been split into groups, each specializing in a specific skill set, and work from each is submitted to the main project in parts. By submitting parts one at a time, it is easy to identify where the issues lie without having to question the project as a whole. Technical risks cannot be avoided completely, but their effects can be minimized.

Teamwork Risks:

This is the first large scale project for many of the team members, as such, communication is of the utmost importance. Members are in contact with each other through both Slack and email, where they are assigned tasks and reminded of deadlines. Even distribution of work is overseen by the team leader, with open communication about any disagreements.

Legal/Content Risks:

No Risks known at this time.

7. Project management:

In this milestone, we divided the work based on what we already had as our roles in previous milestones. The front end team was mostly working on getting high level information of the UI mockups and storyboards and the backend side mostly worked with MYSQL, data definitions, and functional requirements. Working with database organization and implementing search to the database, the backend team downloaded the django filters library and worked on filters.py and views.py files to filter different attributes for a model in a database for a database query. In upcoming milestones, we are planning to do more research based on the technologies we are using as we are still getting comfortable in using it. This is a good milestone where the back end and front end sides of the team, where able to work separately but still on the same page of what the end goal is. We must continue to work hard in achieving the goal of customer satisfaction in the product.