SW ENGINEERING CSC 648/848 FALL 2019

‘EZY-SORT’

TEAM 102

MILESTONE 1

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Date	Version	Description
October 3, 2019	1.0	Final Draft

1. Executive Summary:

The following is a proposal for a start-up company called ‘Ezy-Sort’, with the main aim of allowing a user to keep track of what is in their fridge. In the United States on average, there is a food waste of between 30-40%, equivalent to approximately 161 BILLION dollars’ worth of food. On top of that, there is an average of 40 million people who go hungry in the United States. The application ‘Ezy-Sort’ will help users track what items are being brought into their refrigerator, expiration dates on items, where to purchase previously bought items, and how much is being consumed over a specific period of time. Ezy-Sort is meant for everyone and tries to knock-down how much time it takes to insert the items into the specific profile’s virtual refrigerator, by allowing users to scan the receipt they received from the grocery store, which then takes the significant needed information.

Ezy-Sort was created by two entrepreneurs with the goal of wasting less food and finding solutions. It comes with great pride that Ezy-Sort went recruiting at San Francisco State University to find 7 different developers to help create the product. With 7 young developers comes a wide selection of different talents and skills on both the front and back end of the product.

2. Personas and User stories:

1. College Student

Derek:

Derek is a sophomore at San Jose State University, studying Computer Science. Derek currently lives outside of school with his girlfriend Amy. As a college student, Derek has

many homework assignments, projects, and exams every week. Derek likes to play video games and watch gaming streams during his free time.

User Story:

- Derek doesn't have a lot of time shopping so he loves to order vegetables, meats, and snacks online. Derek would like to have a solution to help him create a list of what he needs to buy so he does not have to spend too much time thinking about it, and so his girlfriend will not repeat the purchase on what he already bought.
- Also, Derek has problems remembering expiration dates of different groceries so he likes to have something that can help remind him what is going to expire and what has already expired.

2. Preschool owner

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.

User Story:

- Candice would like to find a solution to avoid feeding anyone expired food and would also like a solution to keep track of what is being consumed in the fridge.
- Candice does not have that much time in the day, so she does not have time to create her own spreadsheet.

3. Worker:

Lina

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.

User Story:

She may over-order foods sometime, 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.

4. Data definition:

We define users as a person who will register our website using an Email address. They can log in to their account using the username or email address. After login, they will see the home page and should be able to go to different pages. The Add page allow them to add new items into the refrigerator by scan receipts, text input, voice input or scan barcode. The Items page will show what they have now, the expiration day of each item,

can check the recipe base on the item and able to remove items. The Shopping list page will allow them to create a shopping list and able to share it with other people. The report page will show a summary of the refrigerator and how much they spent per month.

5. An initial list of functional requirements:

Functional Requirement

1. Users can register an account using Email.
2. Users can add items by scan receipts/Barcode/text input.
3. User can remove items
4. Users can check what they have in the refrigerators now.
5. Users will be notified before items expire.
6. Users can search recipes based on an item
7. Users can create a shopping list.
8. User can view Monthly report (How much they spent, what expired, what they ate, etc.)

List of non-functional requirements:

1. Add family members to the account.
2. Share shopping lists with others.
3. Recommend items and Recommend shopping list.
4. Calories counter.

6. Competitive analysis:

Company	Student based team	Receipt Scanner	Recommends ingredients
Ezy-Sort	Yes	Yes	Yes
FridgeCam	no	no	Yes
Fridge Pal	no	no	Yes
Fridge Check	no	no	Yes

After researching the market for similar companies, what we at Ezy-Sort were able to find is that even though the selected companies all offer ingredients based on what you have, something special that we provide is allowing a receipt to be scanned and stored. Not too many people nowadays have time to manually enter all the items. Also, for security reasons, instead of having to place a camera which can invade privacy, you can simply just scan your receipts and have it automatically pull what is needed to be pulled off the receipt. Another major feature that Ezy-Sort is in the process of incorporating is keeping in mind that some users will have accessibility features put in to allow them to use our product.

7. High-level system requirements

Software Stack:

- Server Host: AWS 1vCPU 1(GIB) EBS
- Operating System: Linux AMI 2018.03.0 (HVM)
- Database: MySQL 8.0
- Web Server: Apache 2.4.41
- Server-side language: Python
- Web-App framework: Django 2.2.5
- API: TabScanner
- Additional: Pycharm, Visual Studio Code,

8. Team:

- Ibrahim Aboudamous [Team lead/Project manager]
- Abdi Mohamud[Backend lead]
- Carolyn Chen [Scrum/Frontend]
- Tianrong Zhen[Frontend lead/Github Master]
- Anne Lanaza[Frontend]
- Surabhi Chavan[Frontend]
- John Sabour[Backend]

9. Checklist:

· Team found a time slot to meet outside of the class - DONE

· Github master chosen - DONE

· Team decided and agreed together on using the listed SW tools and deployment server -DONE

· Team ready and able to use the chosen back and front end frameworks and those who need to learn and working on it, along with study schedule - DONE

· Team lead ensured that all team members read the final M1 and agree/understand it before submission - DONE