

**San Francisco State University**  
**SW Engineering CSC 648 – 848**  
**MealSight**  
**Section 01 - Team Interpreter**

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**Milestone 1**  
**9/21/2022**

**History Table**

Milestones	Revisions

## 1. Executive Summary

MealSight is a service that helps people pick the right recipes for them. Everyone eats, but not everyone cooks. One of the main concerns people have that holds them back from cooking is the overwhelming number of recipes to choose from. One site alone, *allrecipes.com*, consists of millions of recipes. In psychology this is referred to as the paradox of choice, where people can feel overwhelmed when given too many options.

MealSight works by narrowing down the number of recipes to a more manageable number. The way it does this is by learning what ingredients the user has at their disposal and intelligently selecting meals that best utilize these ingredients that a person already owns. This both reduces the need for trips to the store and prevents pantries from becoming cluttered needlessly. In addition, users can rank meals after cooking and trying them, and our algorithms can learn from these ratings to better cater to the specific desires of individuals.

We hope to create what will become a staple kitchen tool that can be used by amateur and enthusiast chefs alike to make recipe selection and shopping fun and enjoyable.

## 2. Personas and User Stories

Case 1 -

Grace Shelby:

- Grace is a 32-year-old woman married to an influential businessman. Grace is a mother and has two kids, a son who is 6 years old and a daughter who is 4 years old. Grace Shelby is married to a reformed gangster known as Thomas Shelby, who uses his earned wealth for social work. But his love of guns and food is what brought Grace and Thomas together. Grace loves to cook great meals for her family and she has a mild OCD which makes her keep her surroundings clean. In her free time, she cleans the guns of Thomas Shelby and cares for them.
- Thomas is an influential man who hosts lavish parties in his mansion, Grace loves to take responsibility of the food. She supervises every dish and selects what will be served to the guests. Often there is a lot of left-over food from the party. She feeds the old people with her friends. Grace Shelby once was from a poor family and struggled to exist in a lower middle-class family. Grace's father passed away when she was 5 years old, but her mother who raised her now faces back issues which have let her be bed ridden. Thus,

she decided to do bartending and that is where she met Thomas Shelby. Thomas being a regular at that bar fell in love with Grace and decided to let go of his previous life of crime and became a reformed socialist who married Grace, took care of her mother's expenses.

- Now Grace Shelby lives a noble life of an upper-class housewife who loves to travel a lot and try different food items from all over the world and if possible, modify them.

#### Case 2 –

##### Anabel Campo –

- Anabel is a 29-year-old highly educated woman; her profession is that of a middle school teacher. She has struggled a lot to reach her aim to educate the young generation. Anabel was born and raised in a family that owns restaurants. So, they were well off as she used to get ponies on her birthdays. Even though she had resources to achieve her dreams, she still had a lot of issues as her family wanted her to be involved in family business, but she chose her own path which would have put her on the wrong side of her family. But to get the best of both worlds, she invested her life savings in a bakery which she runs after she gets off from school.
- In her family she has a mother named Linda who is 64-year-old and three brothers named John 40-year-old, Timothy 37-year-old and Martin who is 34-year-old. Anabel always arranges potlucks in school and brings food from her bakery to her class and loves to treat her students. Anabel is always involved to know which kids in her class are from the families which are struggling in household with income and putting food on table, to help those kids she always brings some food from her restaurants and often buys them clothes on Christmas.
- Anabel's bakery is known as the Urban Bakery, the reason she named this bakery the Urban bakery because she uses her recipes she learned from her ancestors and she believes that she is using modern tech to make her dishes, thus it is named the Urban kitchen since it is all in urban setting. Anabel has been a loyal customer of Bank of America and every year her aim is to save 10 – 15k dollars and deposit them in Merrill Edge account to save enough to buy her first dream house.

#### Case 3

Mike Oxmaul is a retired 20-year-old dad who is addicted to checking the news on his phone 24/7. He is the husband to Candice and must buy groceries for his kids Bo and Nerr weekly. Bo is 6 and Nerr is 9 years old, but they like to eat a variety of foods including eggplants, peaches, eggs, watermelon, etc.

Every time Mike goes shopping at Costco, he ends up having to call Candice about what items to buy and if he had missed anything. This method of communication often drains him till he is

weak in his knee and causes dissatisfaction in the kids, since they get none of their favorite foods.

- ID:69420  
Look in the fridge to see if food needs to be bought
- ID:69421  
Talk to wife to see what needs to be bought
- ID:69422  
Find/Go to a store to buy groceries
- ID:69423  
Double Check with wife if any additional groceries need to be bought

#### Case 4

Candice Nuz Fidinurmoud is a 77-year-old mom who is a professional housewife. Her favorite quote is from the famous rapper Cardi B (song: WAP).

"I don't cook, I don't clean  
But let me tell you, I got this ring (ayy, ayy)  
Gobble me, swallow me, drip down the side of me (yeah)  
Quick, jump out 'fore you let it get inside of me (yeah)  
I tell him where to put it, never tell him where I'm 'bout to be"

As a professional housewife, she aspires to one day live a life where she doesn't have to cook and clean for Mike, Bo and Nerr. Often Candice has trouble deciding what to make for lunch and dinner every week. Since Barrett goes to Costco often, there are lots of the same ingredients in the fridge and pantry, but the family gets tired of eating the same meals every week.

Thus, Candice tries to learn new recipes by scrolling through social media and watching YouTube videos. However, these recipes often require a separate set of ingredients to make. Having recipes that relate to the ingredients in her fridge would tremendously help her in preparing meals for Mike, Bo and Nerr. This would tremendously help Candice in her weekly meal preps and being a professional housewife not as bad.

- ID:69424  
Look in the fridge to see what food is available
- ID:69426  
Talk to Mike to buy groceries if needed
- ID:69426  
Come up/Find a recipe for lunch/dinner

- ID:69427  
Cook the food

### 3. Data Definitions

User: The user is an account entity that is associated with all the user's data including their recipes, settings, and preferences.

Recipe: Represents an entry in the recipe book. Composed from a list of ingredients and directions, as well as other descriptive attributes such as category, cook time, and calories.

Recipe Book: A collection of recipes which may be populated, organized, and searched by the user.

Ingredient: A single component of a recipe. An ingredient may be used in many different recipes.

Pantry: An inventory of ingredients that the user has on-hand for the creation of recipes.

Meal Plan: A collection of recipes that are associated with specific dates or days of the week/month. The meal plan helps to populate the shopping list based on which recipes are included.

Shopping List: A list of ingredients.

Merchant: A store that is associated with specific ingredients, preferences, or coupons.

### 4. Functional Requirements

There are three major components:

- Recipe Book: API used to store database of recipes
- Meal Planner: Tool to assist users in the selection of meals
- Shopping List: Asynchronous tool that lists the ingredients for desired recipes.

ID	Component	Description	Priority
0001	Recipe book	Recipes can be imported from another website	Low
0002	Recipe book	Users can manually create and edit their recipes	High
0003	Recipe book	Users can rate their recipes	Low
0004	Recipe book	Users can add notes and comments to recipes	Medium
0005	Recipe book	Must be searchable	High
0006	Meal planner	Meals are assignable to specific dates or weekdays	High
0007	Meal planner	User editable: User can add, remove, or move meals to different dates.	High

0008	Meal planner	Suggestions for meals are generated based on preferences	Low
0009	Meal planner	Calendar and list view	Medium
0010	Shopping list	Must be user editable	High
0011	Shopping list	Populate ingredients from meal plan	Low
0012	Recipe book	Recipe view with ingredient checklist	Medium
0013	User Account	Keeps track of the Recipe book, Meal Planner, and shopping list	High

## 5. Non-functional Requirements

Development: Data shall be stored in the team's chosen database technology on the team's deployment server

1. (Compatibility) Application shall be compatible and usable on several mobile browsers including chrome and Mozilla Firefox.
2. (Development requirement) Data shall be stored in MySQL on a Google Compute Engine instance.
3. (usability) Application shall be easy to use and intuitive.
4. (Development requirement) The code in the main branch of team's GitHub repo should be well maintained and guarantee working at any time.
5. (availability) A read-only version must be accessible even when offline.

## 6. Competitive Analysis

Feature / Competitor	Allrecipes	Anylist	Paprika	Our app
Recipe book	Y	N	Y	Y
Recipe import	N	N	Y	Y
Meal planner	N	N	Y	Y
Pantry	N	N	N	Y
Grocery list	Y	Y	Y	Y
Blog	Y	N	N	N
Web interface	Y	Y	N	Y

The advantage of our solution when compared to competitors is the fact that we combine all the given features into a single comprehensive system. These other applications provide individual functionality but none of them works together to make something that is more useful. Our application will be more valuable to the user since each component complements the others to provide a more intuitive and powerful experience.

## **7. High Level system requirements**

Sever Host: Google Compute Engine 1vCPU 2 GB RAM

Operating System: Linux Ubuntu 18.04

Database: MySQL 5.7

Web Server: nginx/1.14.0

Server-Side Language: JS

Web Application Framework: Express, NodeJS, Lit Element

Additional Technologies: Html, SCC, TS

APIs: Recipe API

## **8. Team**

- Aaron Singh (Team Lead)
- Harrison Rondeau (Front-End)
- Banaz Sinjary(Front end)
- Zachary Colbert (Back-end)
- William Chin (Scrum Master)
- Ramit Singh (GitHub Master)
- Vikram Rai Singh (Front- End)

## **9. Checklist**

- Team found a time slot to meet outside of the class
  - o Done
- Scrum Master shares meeting minutes with everyone after each meeting.
  - o On Track
- GitHub master chosen
  - o Done
- Everyone sets up their local development environment from the team's Git repo.
  - o Done
- Team decided and agreed together on using the listed SW tools and deployment server
  - o Done
- Team ready and able to use the chosen back/front-end frameworks.

- o For each technology (front/back-end/DB/cloud), the team decides who will lead the study of each technology and what will be output of the (feasibility) study within one month.
  - o Ex: implement sample about page using React
  
  - o Implementation of server connection to backend
    - OnTrack
  - o Implement a Slider using Typescript (TS) and Lit Element
    - OnTrack
  - o Implement User Login using TS
    - OnTrack
- Team lead ensured that all team members read the final M1 and agree/understand it before submission
  - o OnTrack