

Kitchen Magician

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Team 01

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Milestone 1

History Table

| Version | Date |
|---------|------|
| M1V1 | 9/26 |
| | |

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Section 1: Executive Summary

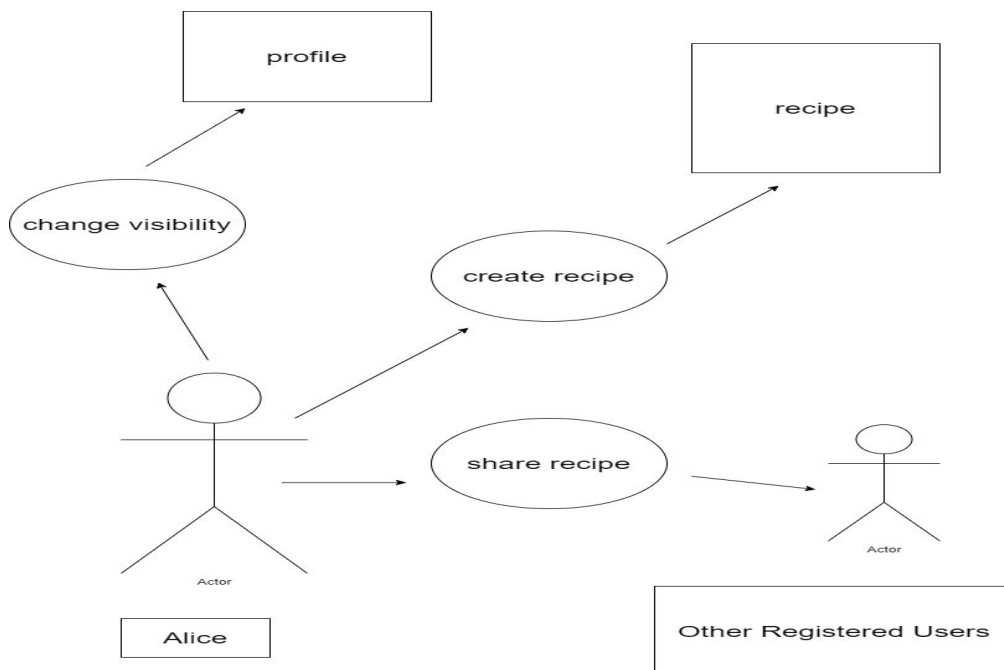
What do you do when you are hungry but you are just too lazy to go out to grab a bite? Or maybe you simply feel it is safer to stay inside, away from all the germs and bacteria that is out there? For most of us, we are left with two choices. Order delivery or make our own. Ordering food can frequently be a toss up though. Sometimes, your food will arrive late and it will be cold and displeasing. Other times, the wrong food was delivered or missing items. Therefore, making your own food at home seems like a great alternative. Not only is it often cheaper than eating out, it is also safer because not only do you not have to interact with a lot of people, you also know exactly what has gone into the food that you are making. No artificial additives or preservatives to be seen! In addition, not many locations cater to particular diets: Vegan, Keto, Gluten Free, Vegetarian, etc. It's always awkward to be excited for a dish only to discover that it does not conform to your own dietary needs. Making your own food just makes more sense. However, not many people have recipes off the top of their head, and even fewer have actual experience in the kitchen. This is where we come in.

“Kitchen Magician” is a web-based service that provides users with a plethora of community-created recipes to suit their needs. Users will be able to search up certain recipes based on any criteria that they can provide. Those criteria can range from things like certain ingredients, meals, diets, etc. Users will be able to provide as much, or as little, information as they want, and in a matter of seconds, they will be rewarded with recipes that match their preference. Users with special diets can immediately filter results based on their needs. Users will also be able to create their own recipes in great details and share them in the community for other users to see. In addition, users will be able to rate various recipes based on whether they thought it was exemplary or underwhelming. Rating a recipe encourages the chef, each and every user, to be creative and be recognized. Who doesn't want to be popular and be recognized among their peers?

Section 2: Main Use Cases

Use Case: Registered User: Alice, Privacy-centric young woman who aspires to be a chef with minimum computer knowledge

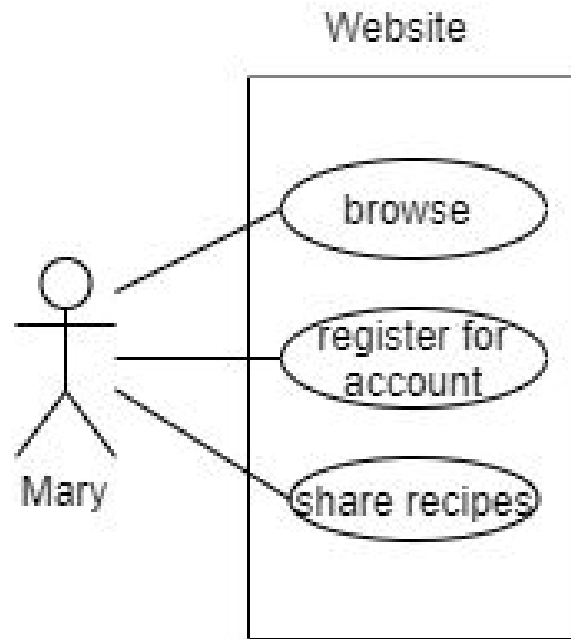
Alice has always enjoyed cooking ever since she was a young girl. She often records her new creations in a notebook in her bag. However, recently, Alice left the farm on which she was raised, and moved to a distant city, because she wanted a change of life. Her new friends at the city are pleasantly surprised by Alice's cooking, and consequently encourage Alice to share her recipes in an online community, where everyone can learn from one another. They recommend a community site because they know creating a site on Alice's own would be too difficult for her, and because they know that sense of community is very important in Alice's upbringing. Timid she has always been but could not resist her friends passionate encouragement, Alice finally decides to share her recipes if she can somehow remain mostly unidentifiable. She is looking for a site that lets her post recipes for free to other users in the community, while maintaining a minimum online presence. Naturally, a sense of community necessitates that all users have a registered account.



Use Case: General User: Mary

Mary is a middle-aged woman trying to figure out what to cook for her dinner party on Friday. She invited her close group of girlfriends for a little reunion. She goes on “Kitchen Magician” to look for ideas so everyone can enjoy a great dinner. There is a section of popular dinner recipes for the current season. She is able to browse freely on the website without the need of registering for an account. She also can share recipes and send them to her friends

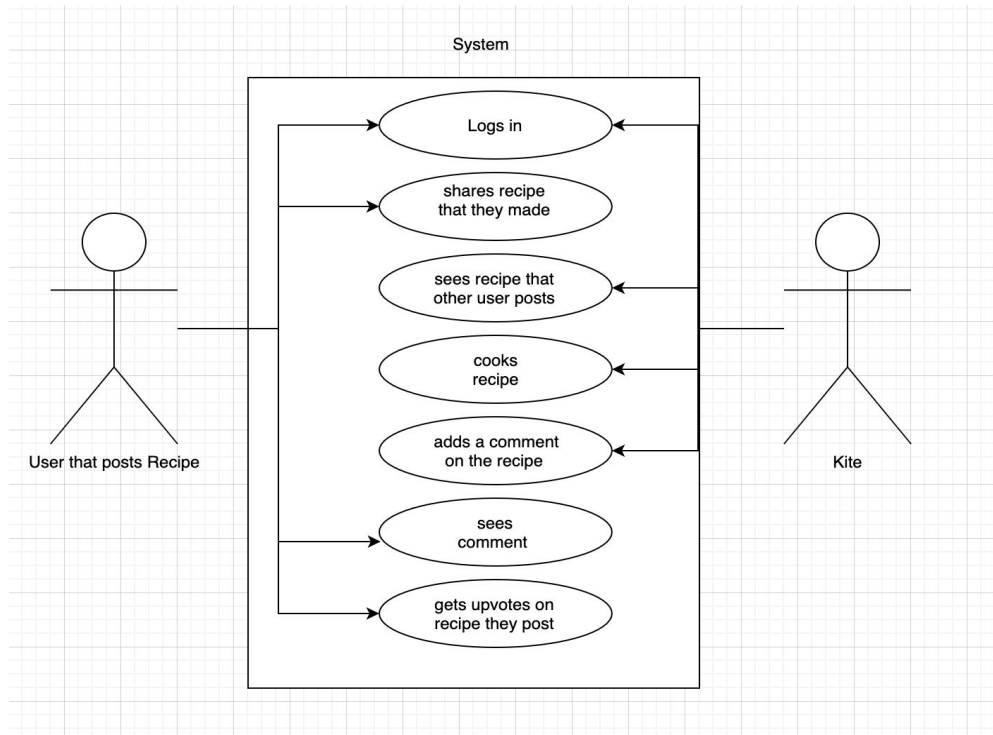
through email. However, she notices that she isn't able to comment or upvote a recipe unless she is logged into a registered account.



Use Case: General User: Kite, User that posts recipes: Andrew

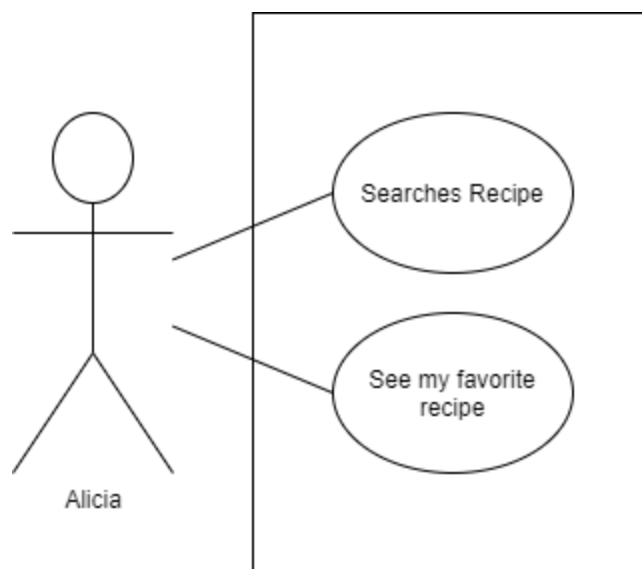
Kite has taken the lockdown as an opportunity to lose weight. He constantly works out, but he doesn't eat well. Kite doesn't see a change so he decides to visit the website "Kitchen Magician" that a friend recommended to help him so he can eat healthier. Kite has trouble finding places to eat because he is a Vegan. When he is on the "Kitchen Magician" he notices he is able to filter his search. Since Kite hasn't had any time to go out, his main focus is what he eats so he has time to prepare meals and read over recipes.

Andrew, who posted the recipe, logs on and decides to post a recipe for a healthy diet to lose weight. Andrew is a health nutritionist who also has been through weight struggles so he constantly posts to help others. As he sees many people upvote his recipes he continues to add them so other users are knowledgeable of healthy eating. He notices a user Kite that comments on the recipe and writes how it has helped him a lot.



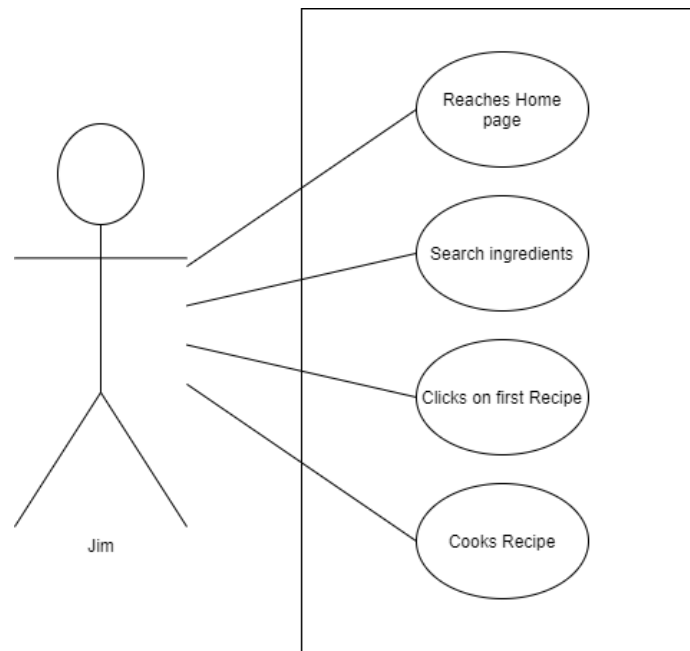
Use Case: General User: Alicia

Today is Thanksgiving. Alicia bought a turkey yesterday. She wants to make a juicy roasted turkey. She goes to the website, and starts searching turkey related receipts. After inputting keywords and clicking search, there are more than 50 related receipts pop up. She cannot find a satisfied one after a thorough browse. All of a sudden, she realizes she has saved an excellent receipt before, so she logs in and views her favorite recipes and access them. She is very glad that she gets the one she looks for.



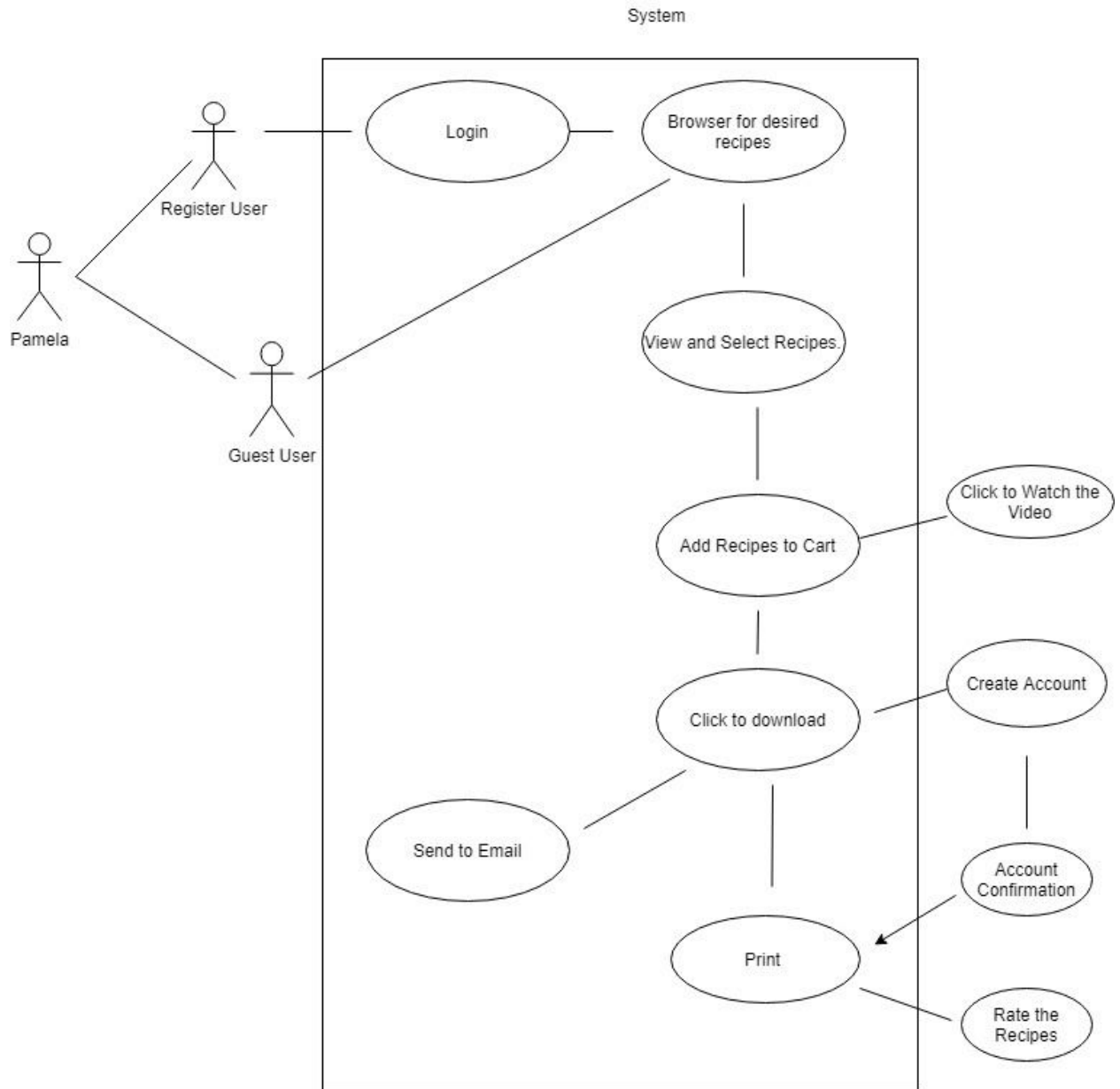
Use Cases: Inebriated or Intoxicated User: Jim

Jim, a 21-year-old college student who lives alone, comes home at 11pm from an evening of drinking with his friends and realizes that he is hungry and does not know what to make. After struggling to type in the website name he looks to his fridge/pantry and sees the ingredients that stand out the most: chicken, pasta, and tomatoes. He types in those ingredients in the search bar and simply picks the first recipe that shows up. He groggily follows the recipe to make the provided recipe dish.



Use Cases: General User: Pamela

Pamela, a mother of 4 kids, came back from work and wants to make dinner for her family. After finding out from her family of 6 what they wanted for dinner she concluded that she needs to make fried rice for eight people. She visited our website to search for recipes to make fried rice for her family of 6. When she finds the recipes she likes, she would like to download the recipes, and follow it step by step to make dinner for her family of 6. When she is done cooking, she would like to rate the recipes on whether it works well for her or not.



Section 3: List of Main Data Items and Entities

General User: Can only access available recipes and user profiles. Does not need to log in/register.

Registered User: Can access available recipes and user profiles, but also can create recipes, give ratings, post comments, and edit own user profile. Needs to login/register.

Admin: Can access all data and content, including comments, and modify the database. Needs to login/register.

Profile: Accessible to anybody, contains select registered users personal information (that they decide to show), given ratings and comments, and published recipes.

Recipes: Ingredients, description, instructions, picture (0 or more), video (0 or 1)

Ratings: Upvote or downvote both recipes and comments

Comments: Comments for recipes left by registered users

Search Keywords: Descriptive words used to describe and categorize recipes during search

Section 4: Initial List of Functional Requirements

General Users:

1. General users shall be able to register for an account.
2. General users shall be able to register for an account if they are of age, defined as 18 years old.
3. General users shall register for an account using a registration form.
4. General users shall use an email to register for an account.
5. General users shall choose a screen name that is unique.
6. General users shall verify that the email used to register for the account is valid.
7. General users shall enter the password twice when registering, and they shall verify that the two passwords match.
8. General users shall agree to the code of conduct to register for an account.
9. General users shall agree to the privacy agreement to register for an account.

Registered Users:

10. Registered users shall be able to change visibility of their profile, except their username.
11. Registered users shall be able to log in with username and password.
12. Registered users shall be able to change their password.
13. Registered users shall be able to reset account passwords.
14. Registered users shall be able to choose an avatar from the image database.
15. Registered users shall be able to change their avatar from the image database.
16. Registered users shall be able to search for recipes with optional additional criteria.
17. Registered users shall be able to add their own recipes.
18. Registered users shall be able to change contents of their own recipes.
19. Registered users shall be able to remove their own recipes.
20. Registered users shall have an attribute for time of account creation.
21. Registered users shall have a counter for their number of public recipes.
22. Registered users shall have a counter for their number of private recipes.
23. Registered users shall be able to like any recipe.
24. Registered users shall be able dislike any recipe.
25. Registered users should create zero or more private recipes.
26. Registered users should create zero or more public recipes.
27. Registered users shall be able to search for recipes based on username.
28. Registered users shall be able to search for recipes based on recipe keywords.
29. Registered users shall be able to search for recipes based on recipe categories.
30. Registered users shall be able to search for recipes based on recipe time-to-finish.
31. Registered users shall be able to search for recipes based on recipe ingredients.
32. Registered users shall be able to search for recipes based on recipe budget.
33. Registered users shall be able to search for recipes based on tools required.

34. Registered users shall be able to search for recipes based on serving size.
35. Registered users shall be able to search for recipes that include photos.
36. Registered users shall be able to search for recipes that include videos.
37. Registered users shall see a navigation bar on all pages.
38. Registered users shall see a navigation button for Home on all pages.
39. Registered users shall see a navigation button for Back on all pages.
40. Registered users shall see a navigation button for the list of registered users on all pages.
41. Registered users shall see a navigation button for the list of recipes on all pages.
42. Registered users shall see a navigation button for About on all pages.
43. Registered users shall be able to add a comment.

Admin Users:

44. Admin users shall be able to remove a comment.
45. Admin users shall be able to delete any types of account.

Recipes:

46. A recipe shall be made private or public
47. A recipe shall have a title.
48. A recipe shall have one or more recipe categories to be added for search in the recipe database.
49. A recipe shall have one or more keywords to be added for search in the recipe database.
50. A recipe shall have serving size information to be added for search in the recipe database.
51. A recipe shall have estimated costs to be added for search in the recipe database.
52. A recipe shall have estimated time required to finish the recipe to be added for search in the recipe database.
53. A recipe shall have one or more ingredients to be added for search in the recipe database.
54. A recipe shall have one or more required tools to be added for search in the recipe database.
55. A recipe shall have one or more directions on how to finish the recipe.
56. A recipe should add zero or more photos to be added for search in the recipe database.
57. A recipe should add one and only one video to be added for search in the recipe database.
58. Only public recipes are shown in any recipe search.

Section 5: List of Non-functional requirements

Performance and scalability:

1. The landing page shall support 50 thousand users per hour
2. It shall provide 3 seconds or less response time in any Chrome, Firefox, Safari or Microsoft Edge browsers, including the rendering of text and images over LTE connection.

Portability and compatibility:

3. The Kitchen Magician shall run on any device supporting at least 16-bit color on a 15-inch display monitor, achieving a SPECfp95 benchmark rating of at least 5.0, and having a data storage capacity of at least 8 MB.

Reliability, availability, maintainability:

4. The Fridge Magician shall be available to US users 98.99% of the time every 3 months
5. The system must have less than 1hr downtime/3 months
6. The system shall maintain a service log at all time.

Storage:

7. The server CPU utilization shall be <70% on Web, Application and Database servers.

Security:

8. Encryption (data in flight and at rest) – All external communications between the system's data server and clients shall be encrypted
9. Data Classification / System Accreditation: All Data shall be protectively marked and stored / protected.
10. The system shall meet Web Content Accessibility Guidelines WCAG 2.1.
11. Database security must meet HIPAA requirements.
12. A registered user shall change the initially assigned login authentication information (password) immediately after the first successful login. The initial password may not be reused.
13. Users shall receive notification of profile changes via preferred communication method on record when profile information is modified.
14. The access permissions for system data may only be changed by the system's data administrator.

Localization:

15. The date format shall be as follows: Month.Date.Year.

Usability, Accessibility:

16. The system shall be accessible to people with disabilities in accordance with the Americans with Disabilities Act of 1990.

17. The system shall be accessible by people with specific vision needs, to the extent that a user shall be able to:
18. Display the whole user interface in a large font without truncating displayed text or other values.
19. Use a screen magnifier to magnify a selected part of the screen.
20. Use a screen reader to read aloud information displayed.
21. The system shall be accessible by people who are color blind.
22. Ease of navigation around the site
23. The use of simple colors and fonts on the system
24. All web pages that are generated throughout the website should be downloadable in no more than 2 seconds over 10KBps modem connection.
25. Interface consistency throughout the system.
26. The response to a query should not take a very long time and not more than 10 seconds to load on screen.
27. When a user sells or bids on the system they should be getting a confirmation of what the member did, i.e. adding a new item on sale at the end of the adding to the system they should get a confirmation message to say it's been added.

Section 6: Competitive Analysis

Important Feature Table:

| Feature/ Company | Taste of Home | Epicurious | Allrecipes | SimplyRecipes | Kitchen Magician |
|---------------------|--|---|---|--|---------------------|
| Strength | The website gives an opportunity to the user to choose what they want from the homepage. Whether it's from fall or winter it's ability to filter different recipes on the occasion is great. | The website provides a great approach to people who want to begin cooking. | The website offers a great step by step on their recipes. They also show images of the cuisine and how it should look. | The website offers a suggestion button that shows a variety of recipes a user can do when they visit the website. This gets the user to begin the cooking process quickly. | |
| Weaknesses | Even though the website offers recipes it seems that it's not only recipes. It also focuses on home crafts and other things that aren't really related to what we want. | The website is not as compelling to people who are just starting out cooking. It is overshadowed by to Many videos of a variety of videos opposed to it being categorized and easy to follow. | The website is cluttered and doesn't really have consistency in the recipes they show. For example they go from seafood to dessert. | The website is cluttered with several option of recipes and is not consistent. | |

| | | | | | |
|--------------|--|---|---|--|--|
| Navigation | The navigation bar at the top is well placed and allows the user to go directly where they need to go. | The website itself feels cluttered with too many recipes and seems out of order. Hard to know what you really want. | The navigation is easy to follow and they also have a great addition on the top bar that allows the user to jump to the exact ingredient of their choice. | The navigation bar allows the user to filter out what they want to cook in terms of diets, ingredients, season, etc. | |
| Color scheme | The color choice is dull and doesn't really pop out. | The color choice seems very dark. The connection between the colors and the website don't match. | Color scheme is simple and they choose red which is a color that makes people hungry. Since they use this color it's a great addition to their website since it's about food. | The color choice is simple and doesn't overshadow the users navigation through the website. | |

Competitive Feature Table:

| Feature | Taste of Home | Epicurious | All Recipes | SimplyRecipes | Kitchen Magician |
|---------------------------|---------------|------------|-------------|---------------|------------------|
| Search Bar | ++ | + | + | + | + |
| Recipe information layout | + | + | + | + | ++ |
| Homepage | + | + | + | ++ | ++ |
| Filter tab | + | - | + | + | ++ |

Superior: ++

Feature exists: +

Doesn't exist: -

Summary of Competitive Analysis:

Kitchen Magician looks to over simplify the way of cooking. K.M. will be compared to many cooking websites, but it is far from equal. At Kitchen Magician we believe in the superiority of simplicity. What we mean by this is that Kitchen Magician will have a homepage that contains less clutter and more information. For example we hope to implement a search bar somewhere at the beginning of the webpage that gives the users fast access to information. We see that most of the time many users would prefer to begin by a simple search and then they venture off into related posts. As for the filter that we want to add, well we want to give the users as many options as possible when they seek a recipe they desire to make. Many people don't eat the same and they are certainly allergic to certain foods. We want to implement a filter that will allow users to find precisely what they are looking for. Again, our mission is simplicity and we want to make our filter as easy to use so that any person who isn't tech savvy will not have trouble with it. A feature we will break our own rule in simplicity is our recipe description. This is where we will shine. The information we hope to give someone is as descriptive as possible so they don't have to second guess a step in the making of their food masterpiece. Kitchen Magician will also allow users and non users to access the information to recipes alike. Information is valuable and when we have to eat, we have to eat! As for the homepage, our competitors love to place Ads in the most inconvenient places. If possible we would like to remove ads for the time being. Another thing we feel we have the upper hand is that the websites feel old and outdated. The way we can commit to a cleaner and modern look is by combining our experiences and running trials on what users really care about when they enter our page. Anything that seems to take up space will be removed. Overall our website aims for a clean and modern look while giving the user full control in what they want in front of them. Just like the Magician in our name, we will make our best recipes appear before your very eyes!

Section 7: High-Level System Architecture and Technologies Used

| System Architecture and Technologies | Tools/Version |
|--------------------------------------|--------------------------------------|
| Server Host | Google Compute Engine 2vCPU 4 GB RAM |
| Operating System | Ubuntu 20.04 LTS |
| Database | MySQL 8.0.21 |
| Web Server | Apache 2.4 |
| Server-Side Language | Python3.7+ |
| Front-Side Language | HTML, CSS, JavaScript |
| Supported Browsers | Chrome, Firefox |
| Web Framework | React, Django |
| API Test | Postman |
| IDE | VS Code |
| Web Analytics | GTmetrix |
| SSL Cert | Certbot |

Section 8: Team

1. Nicole Pang (Team Lead):
 - a.
2. Jeff Cheng (Frontend Lead):
 - a. Section 4,
3. Allen Sun (Backend Lead & Database Master):
 - a. Section 7,
4. Paul Asu (Github Master):
 - a. Section 5,
5. Kevin Wei (M1 Editor):
 - a. Section 3,
6. Kevin Ortiz (Undefined):
 - a. Section 6,

Section 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 are working on learned and practicing:

ON TRACK

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

DONE

- Github organization as discussed in class (e.g master branch, development branch, folder for milestone documents etc.):

- DONE