Kitchen Magician

SW Engineering CSC648/848
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Team 01

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Milestone 1

History Table

Version	Date
M1V1	10/01/2020
M1V2	10/08/2020

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Section 1: Executive Summary

What do you do when you are hungry but you are just too tired 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 items were missing. 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.

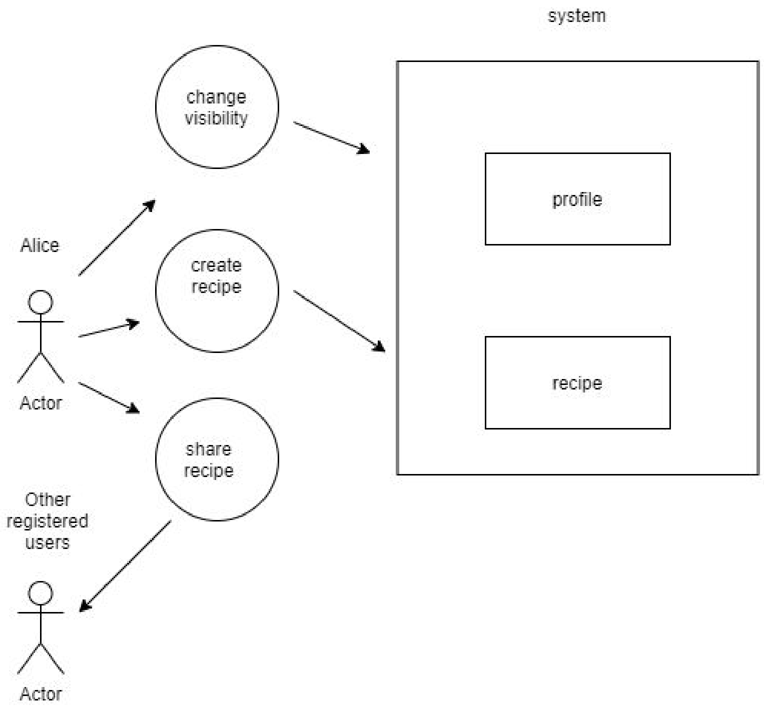
Kitchen Magician is an online community that provides users with novel, original recipes created by their peers. Users will have access to a plethora of different recipes to suit their individualistic, even idiosyncratic, needs. They will be able to search up a specific range of recipes based on any criteria that they can provide. Those criteria can range from things like specific ingredients, meal preference, special diet, and more. Users will be able to provide as much, or as little, information as they want, and in a matter of seconds, they will be given recipes to tinker with. No matter what your needs are, Kitchen Magician has you covered. If not, make a suggestion, and we may just add it for you!

However, one thing that we noticed was how other websites offering a similar service to us have most, if not all, of their recipes made by "professionals". And while our website also has recipes made by professionals, we also wanted to do something different. Some of those professionals tend to compromise authenticity in their recipes. You might have heard of several controversies regarding the Spanish Paella or the Roman Carbonara. Here, we have recipes that are original and novel. We encourage everyone to share your versions of existing recipes: one size does not fit all. It is not uncommon to find homemade recipes that are equal or, oftentimes, more delicious than those you would find in restaurants. In addition, as a community, we encourage users to share their opinions and to rate recipes. Rating a recipe gives the chef and every other user an idea of what others thought of the recipe. Who know, you might be the next Gordon Ramsey, fostered right here on our Kitchen Magician!

Section 2: Main Use Cases

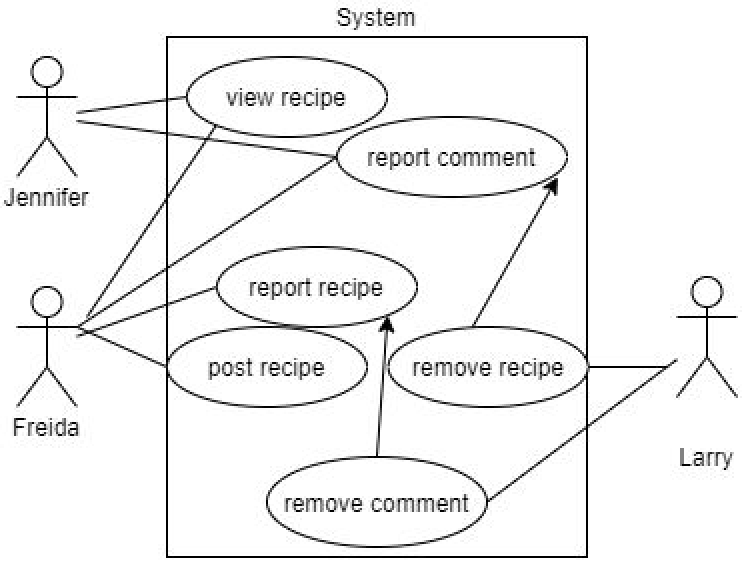
Use Case: Registered User: Alice

Alice is a privacy-centric young woman who aspires to be a chef with minimum computer knowledge. She has always enjoyed cooking ever since she was a young girl. She often records her new creations in a notebook in her bag. 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 city friends have been, however, pleasantly surprised by Alice's wonderful cooking, and they have consequently encouraged 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 decided to share her recipes, if she can somehow remain as anonymous as possible. 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. After she has registered for an account, she sets all of her profile information to private except for her creation date. Her profile now just displays her screen name, account creation date, and number of public and private recipes. Alice is excited to start her journey on Kitchen Magician.



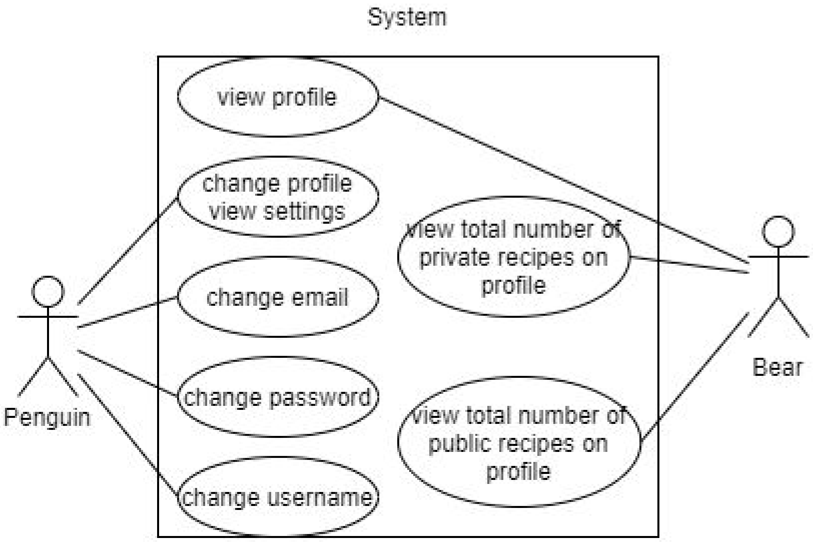
Use Case: Admin: Larry, General User: Jennifer, Registered User: Freida

Jennifer was browsing one of the featured recipes on the Kitchen Magician's front page and noticed an inappropriate comment. Jennifer reports the comment to the website admin through the report button. Freida who uploaded the featured recipe also sees the inappropriate comment and reports it the same way as general user. Frieda is surprised at the maturity of the comment since she agreed to a code of conduct before being able to create her account. Larry sees the reported comment and is able to remove it from the comment section. After seeing the inappropriate comment, Freida browsed the other featured recipes and noticed that one of the recipes was an exact copy from a family recipe she had posted a couple years ago. She reports the duplicate recipe using the report button on the recipe's page. Larry reviews this report and later removes the recipe from the featured page as stolen content.



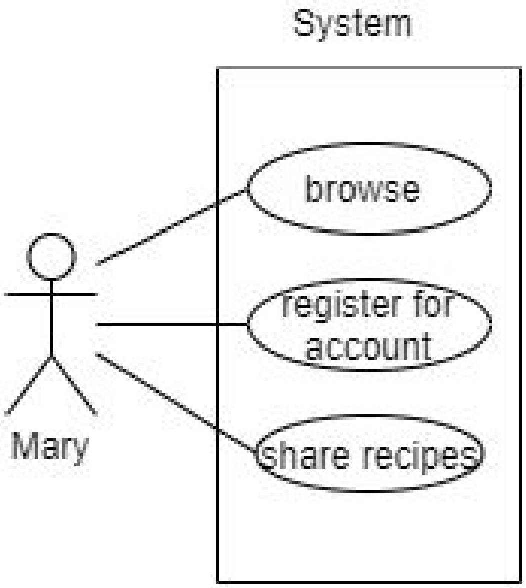
Use Case: Admin: Bear, Registered User: Penguin

Registered user Penguin wants to edit his profile so that his personal information is publicly accessible. He is able to change the view settings for each detail accordingly. He feels relieved that his private information is no longer revealed without his expressed consent. He also noticed that he can update his email and password. Penguin decides to update his old email to his current email. He is happy that it is easy to update account and profile information. Penguin was curious about other members on the website, so he decided to go to the front to look at the profiles of who posted the featured recipes. He noticed that one of the trending recipes was published by an admin, Bear, and went to his profile page to learn more about him. Bear's profile is mostly private, but Penguin was able to see his creation date and was surprised to see that he created his profile five years ago. Penguin is also able to see the Bear's number of private and public recipes and was shocked. Bear has been very involved in the Kitchen Magician community from the time of his account creation date and Penguin realizes that is probably why he has the role as an admin.


System
view profile
change profile view settings
change email
change password
change username
view total number of private recipes on profile
view total number of public recipes on profile
Penguin
Bear

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 the community site to look for ideas, so everyone can enjoy a great dinner. She is able to browse freely on the website without the need of registering for an account. She could also share them by emailing her friends. However, she notices that she isn't able to comment or rate a recipe unless she has an account and is logged in. Mary appreciates the simple interface of the website and loves how organized it is. The trending recipes on the home page give her new ideas for future dinner plans. She enjoys using the website so much that she decides to create an account. She entered her email, verified her password, created a unique username, and verified her email after creating the account.

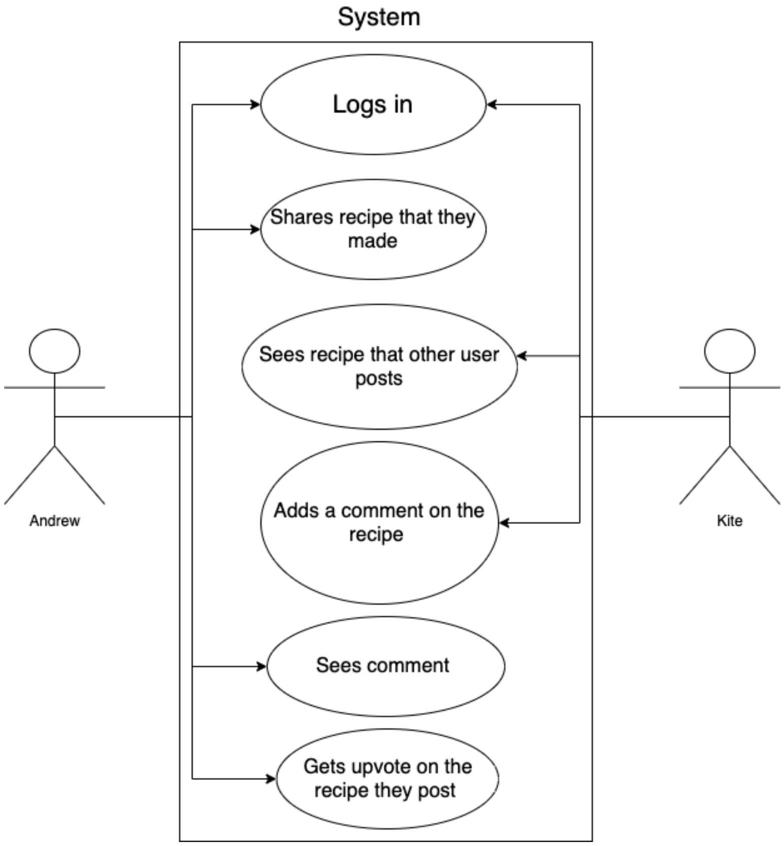


Use Case: General User: Kite

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.

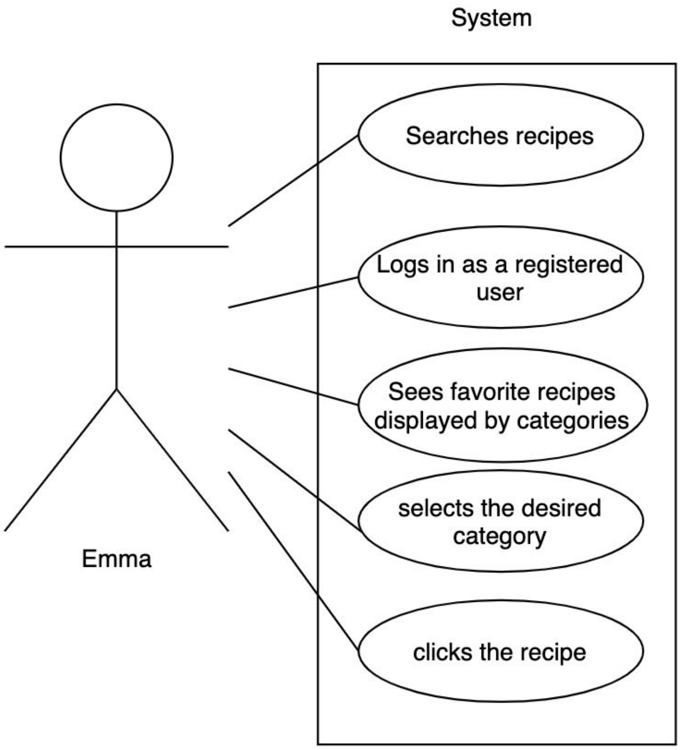
Registered User: Andrew

Andrew, who posted the recipe, logs in 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 upvoting his recipes, Andrew continues to add them so other users become knowledgeable in healthy eating. He notices a user Kite that comments on the recipe and about how the recipe has helped him a lot.


System
Logs in
Shares recipe that they made
Sees recipe that other user posts
Adds a comment on the recipe
Sees comment
Gets upvote on the recipe they post
Andrew
Kite

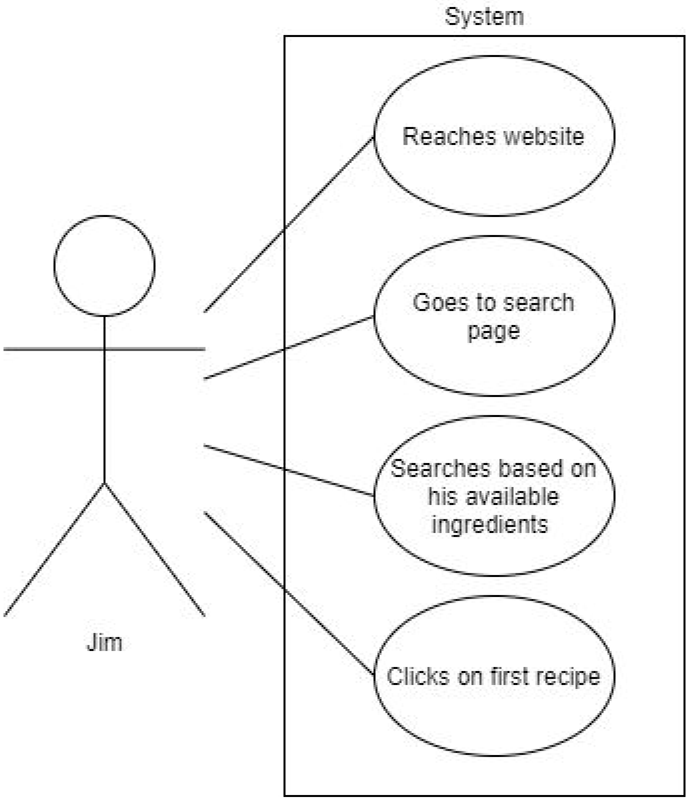
Use Case: General User: Emma

Today is Thanksgiving. Emma bought a turkey yesterday. She wants to make a juicy roasted turkey. She goes to the website, and starts searching turkey related receipts. With the keyword search, Emma found more than 50 related receipts. She cannot find a satisfied one after a thorough browse. All of a sudden, she realizes she has favorited an excellent receipt before in her private list of favorites, so she logs in and views her favorite recipes and access them. She is very glad that she gets the one she was looking for. On the recipe's page she notices that it has various categories like "turkey", "Thanksgiving", and "Fall". Emma clicks the category "Thanksgiving" and more recipes containing the same tag popped up for her to see.


System
Searches recipes
Logs in as a registered user
Sees favorite recipes displayed by categories
selects the desired category
clicks the recipe
Emma

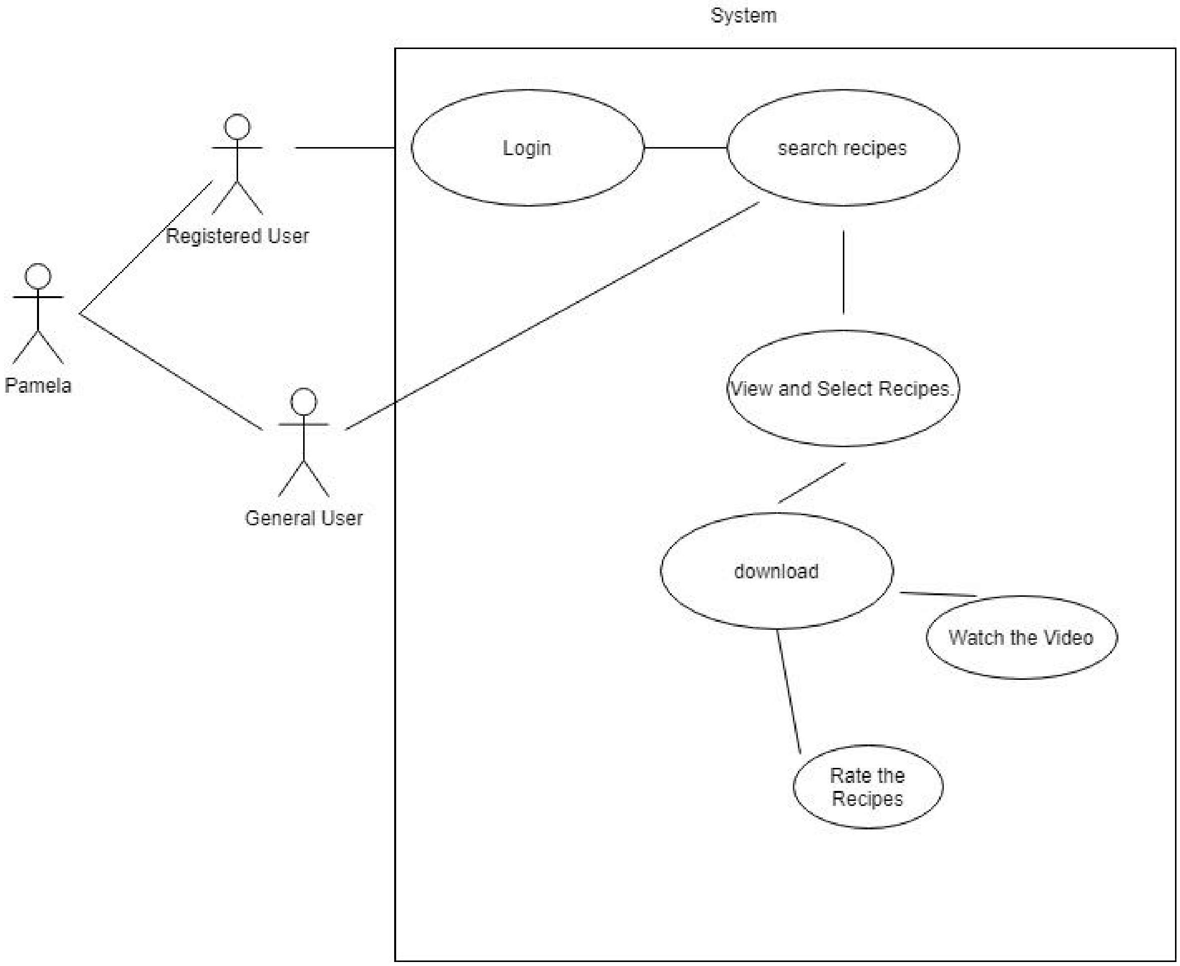
Use Cases: Inebriated or Intoxicated User: Jim

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 typing in “recipe website” on Google he clicks on the first option given. He looks to his fridge/pantry and sees the only ingredients he had: chicken, pasta, and tomatoes. Because he is drunk and not at peak performance, he needs the process of finding a recipe to be easy, simple, straightforward and quick. If he goes through too many steps he will get frustrated and will simply just make cup noodles instead. He reaches the website and navigates to the search page and then searches up some of the ingredients that he has. He is prompted by a list of recipes and Jim clicks on the first one. He follows it and is able to make a meal for himself.



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 six 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 six. 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 six. When she is done cooking, she would like to rate the recipes on whether it works well for her or not.

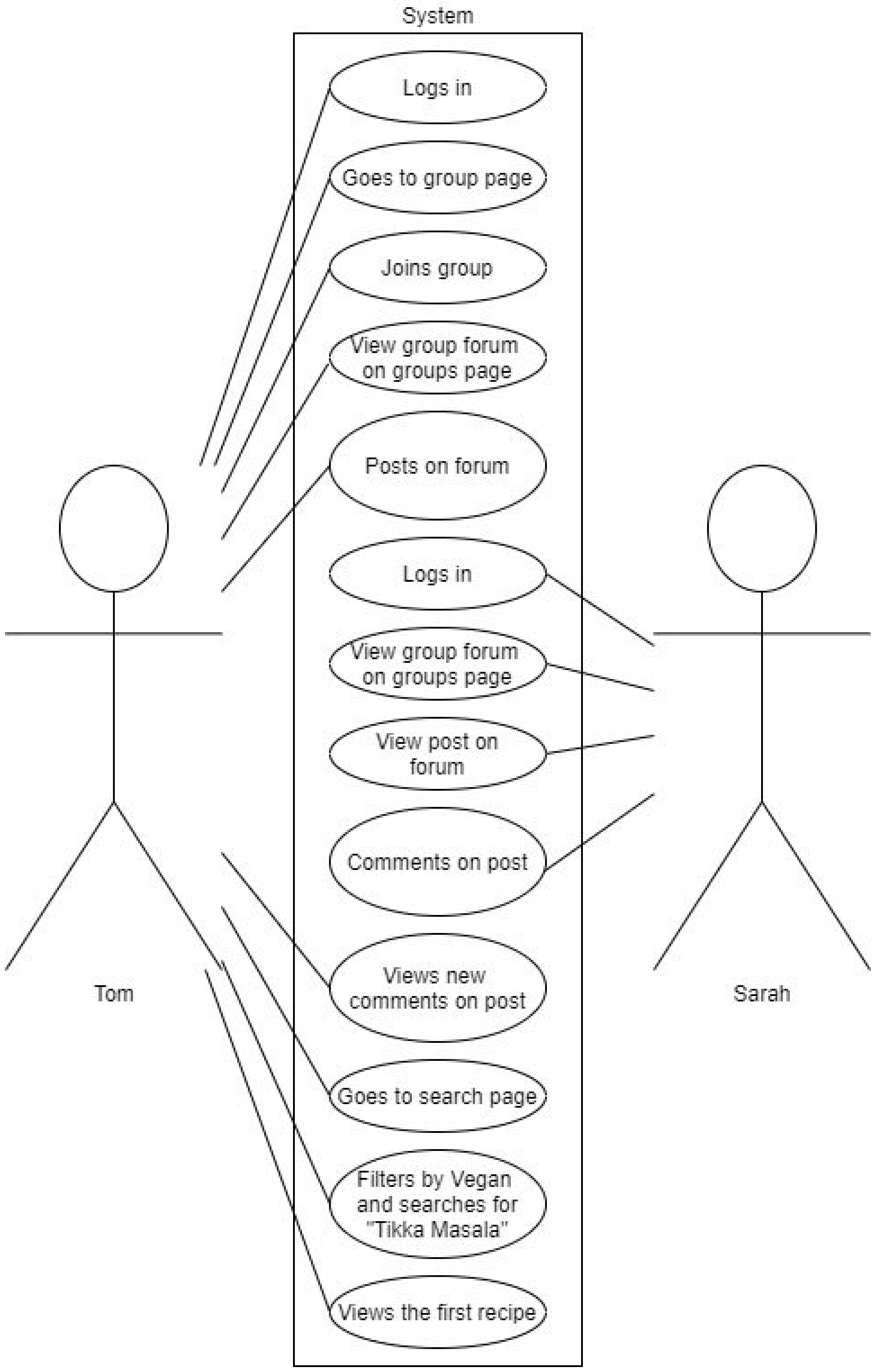


Use Cases: Registered User: Tom, Registered User: Sarah

Tom is a college student who is trying out that new vegan life for himself and is worried that he might not be doing everything he can up to that high vegan standard that everyone knows about. He wants to get information about what foods are vegan and if some of his favorite foods can be made vegan friendly. He logs in and goes to the groups page, finds the vegan group, and joins it. He then goes to the Vegan group page and sees a forum where group members can post and ask questions. Tom creates a post in the group forum asking if his favorite dish, chicken tikka masala, can be recreated vegan in some way. After half an hour, Tom checks back on the group forum and notices a reply comment from Sarah who is also in the Vegan group. Sarah explains to Tom that he would need to leave out the chicken or use a plant based alternative. Tom breathes a sigh of relief, as he can somewhat enjoy his favorite dish in some capacity. He then goes to the search page and filters by vegan and searches for tikka masala. He views the first recipe on the list and decides to use it for the night's dinner.

Registered User: Sarah

Sarah has been a vegan for nearly over five years and is no stranger to giving other people ideas for vegan alternatives to meat based dishes. She logs in and goes to the Vegan group page and sees the most recent post by Tom asking if chicken tikka masala can be made vegan. Because she has tried to do the same before and succeeded, she comments on the post that it can, although the chicken would need to be replaced by something more vegan friendly. The vegan chicken tikka masala gained a lot of attention from the users in the vegan group and was upvoted so much, it appeared on the featured recipes on the home page.


System
Logs in
Goes to group page
Joins group
View group forum on groups page
Posts on forum
Logs in
View group forum on groups page
View post on forum
Comments on post
Views new comments on post
Goes to search page
Filters by Vegan and searches for "Tikka Masala"
Views the first recipe
Tom
Sarah

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 on recipes, edit own user profile, and join groups. Needs to login/register.

Group User: Can access available recipes and user profiles, but also can create recipes, give ratings, post comments on recipes and select group forums, edit own user profile, and join more groups. Needs to login/register.

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

Profile: Viewable to anybody, editable only to the registered user the profile pertains to. Contains settings only available to the registered user, personal information that they decide to show, given ratings, comments, and published recipes.

Recipe: Ingredients, description, instructions, picture (0 or more), video (0 or 1), can be labeled as trending based on rating

Rating: Upvote or downvote both recipes and comments

Comment: Text left by registered users

Search Page: Viewable to anybody, contains options of descriptive words, categories, diets, etc used to describe and categorize recipes during search.

Search: Conducted on the Search Page, returns a list of recipes according to search input

Group: Any number of registered users who are linked together via a common search term. Registered users who are a part of a group have access to the select group page.

Section 4: Initial List of Functional Requirements

General User:

1. General User shall be able to register for an account.
2. General User shall register for an account using a registration form.
3. General User shall provide an email when registering for an account.
4. General User shall provide an username during registration
5. General User shall verify the email used to register for the account is valid.
6. General User shall verify the password when registering for an account.
7. General User shall see a navigation bar on all pages.
8. General User shall see a counter for the total number of registered users on the home page.
9. General User shall be able to search for recipes at the search page.
10. General User shall be able to view recipes.
11. General User shall be able to view a Registered User's profile.
12. General User shall be able to share a recipe by email.
13. General User shall be able to download a recipe.

Registered User:

14. Registered User shall be able to log in with a valid username.
15. Registered User shall be able to log in with a valid password.
16. Registered User shall be able to log out.
17. Registered User shall have only one profile page.
18. Registered User shall be able to change visibility of their profile page.
19. Registered User shall be able to change their password.
20. Registered User shall be able to reset their account password.
21. Registered User shall be able to change the avatar for their profile page from the image database.
22. Registered User shall have an attribute for account creation time at the profile page.
23. Registered User shall see a navigation bar on all pages.
24. Registered User shall be able to search for recipes at the search page.
25. Registered User shall be able to view recipes.
26. Registered User shall be able to create their own recipes.
27. Registered User shall be able to publish their own recipes.
28. Registered User shall be able to edit their own recipes.
29. Registered User shall be able to delete their own recipes.
30. Registered User shall have a counter for their number of public recipes on their profile page.
31. Registered User shall have a counter for their number of private recipes on their profile page.

32. Registered User shall be able to upvote any public recipe.
33. Registered User shall be able downvote any public recipe.
34. Registered User shall be able to add a comment on any public recipe.
35. Registered User shall be able to report a recipe.
36. Registered User shall be able to report a comment.
37. Registered User shall be able to share a recipe by email.
38. Registered User shall be able to favorite a recipe.
39. Registered User shall be able to download a recipe.
40. Registered User shall be able to view existing groups.
41. Registered User shall be able to join a group.

Admin:

42. Admin shall be able to log in with a username.
43. Admin shall be able to log in with a password.
44. Admin shall be able to log out.
45. Admin shall have a profile page.
46. Admin shall be able to change visibility of their profile page.
47. Admin shall be able to change their password
48. Admin shall be able to reset account password at the profile page
49. Admin shall be able to change the avatar for their profile page from the image database.
50. Admin shall have an attribute for account creation time at their profile page.
51. Admin users shall see a navigation bar on all pages.
52. Admin shall see a counter for the number of registered users, where appropriate.
53. Admin shall be able to search for recipes.
54. Admin shall be able to view recipes.
55. Admin shall be able to publish their own recipes.
56. Admin shall be able to change contents of their own recipes.
57. Admin shall be able to delete any public recipes.
58. Admin shall have a counter for their number of public recipes on their profile page.
59. Admin shall have a counter for their number of private recipes on their profile page.
60. Admin shall be able to upvote any public recipe.
61. Admin shall be able downvote any public recipe.
62. Admin shall be able to add a comment on any public recipe.
63. Admin shall be able to delete any comment on any public recipe.
64. Admin shall be able to favorite a recipe.
65. Admin shall be able to download a recipe.
66. Admin shall be able to create a group.
67. Admin shall be able to delete a group.
68. Admin shall be able to reset password for users.
69. Admin shall be able to join a group.

70. Admin shall be able to delete messages from the group forum.

Recipe:

71. A recipe shall be made private or public.
72. A recipe shall have a title.
73. A recipe shall have one or more recipe categories to be added for search.
74. A recipe shall have one or more keywords to be added for search.
75. A recipe shall have serving size information to be added for search.
76. A recipe shall have estimated costs to be added for search.
77. A recipe shall have estimated time required to finish the recipe to be added for search.
78. A recipe shall have one or more ingredients to be added for search.
79. A recipe shall have one or more directions on how to finish the recipe.
80. A recipe should add zero or more photos.
81. A recipe should add zero or only one video.
82. A recipe shall be labeled trending when it is the recipe with the most upvote ratings
83. Only a public recipe shall be visible when searched for.

Group User:

84. Group User shall be able to view the forum.
85. Group User shall be able to search for recipes.
86. Group User shall be able to post to the forum.
87. Group User shall be able to comment on the forum.
88. Group User shall be able to change visibility of their profile page.
89. Group User shall be able to change their password at the profile page
90. Group User shall be able to reset account password
91. Group User shall be able to log out
92. Group User shall be able to change the avatar for their profile page from the image database.
93. Group User shall have an attribute for account creation time at their profile page
94. Group User users shall see a navigation bar on all pages
95. Group User shall see a counter for the number of registered users, where appropriate
96. Group User shall be able to search for recipes
97. Group User shall be able to view recipes
98. Group User shall be able to publish their own recipes
99. Group User shall be able to change contents of their own recipes
100. Group User shall be able to delete any public recipes
101. Group User shall have a counter for their number of public recipes on their profile page.

102. Group User shall have a counter for their number of private recipes on their profile page.
103. Group User shall be able to upvote any public recipe.
104. Group User shall be able to add a comment on any public recipe.
105. Group User shall be able to delete any comment on any public recipe.
106. Group User shall be able to favorite a recipe.
107. Group User shall be able to download a recipe.
108. Group User shall be able to create a group.
109. Group User shall be able to delete a group.

Section 5: List of Non-functional requirements

System requirements:

1. The application must have one unified system for search, with all fields searchable.
2. Search shall be able to be filtered by username.
3. Search shall be able to be filtered by recipe keywords.
4. Search shall be able to be filtered by recipe categories.
5. Search shall be able to be filtered by recipe by estimated total preparation time.
6. Search shall be able to be filtered by recipe ingredients.
7. The application shall provide the ability to specify multiple operands and operators for a search.
8. The application registration interface must be keyboard accessible.
9. The application registration interface must allow users to tab to the next entry field.
10. The system should be organised in such a way that user errors are minimised.
11. The application system shall have an admin page.
12. The application system shall have a login page.
13. The application system shall have a registration page.
14. The application system shall have a general recipe page.
15. The application system shall have a general community page.
16. The application system shall have a user profile page.
17. The application system shall have an about page.
18. All pages shall have a header on the top.
19. The header shall contain a logo.
20. The header shall contain a search input.
21. All pages shall have a footer on the bottom.
22. The footer shall contain a statement of copyright.
23. The system shall give users the option to print the recipes.
24. The system shall provide a means of representing external files.
25. The system shall provide a means of accessing external files.
26. The system shall give users the option to download the recipes.
27. The system shall give users the option to download recipes in pdf format
28. The system shall give users the option to download recipes in jpeg format.
29. When the public user accesses the system, the pages displayed shall be rendered without failing to display the pages consistently across all identified browsers.
30. The user interface of the system shall be compatible with Chrome 85.0.4183.121 and later.
31. The user interface of the system shall be compatible with Safari Mac os X 10.5 and later.
32. The user interface of the system shall be compatible with Firefox 81.0.1 and later.
33. All content shall be displayed error-free, e.g., without conflicts, overlapping, or other performance errors.

34. Each page must have an official logo of the application.
35. The application system shall return to the home page in case of error loading of the page.

Performance requirements:

1. The system shall be able to handle up to 1000 concurrent users when satisfying all their requirements.
2. The system shall be able to handle up to 2500 concurrent users with browsing capabilities.
3. The system shall display content with the smallest delay possible, and scale to handle dozens of thousands of new users.
4. When a user clicks any links in the navigation bar, the route should take less than 2 seconds.
5. Time it takes for the user profile page to load after login shall be less than 2 seconds.
6. 80% of searches shall return results in less than 3 seconds.
7. Each image shall be loaded within 2 seconds.
8. Any recipe page with video shall be loaded within 2 seconds.
9. Any recipe page without video shall be loaded within 3 seconds.
10. Any community page shall be loaded within 3 seconds.
11. It shall be less than 2 seconds to start to play a video after a user clicks to play it.

Storage requirements

1. URLs must be unique in the repository
2. The application must allow users to delete all their content (recipes, comments, custom post types), their profiles, and all associated user account information.
3. All config data stored in XML.
4. Data stored in a MySQL database.
5. All components shall leverage existing, central dataset/databases.
6. The admin user shall be about to interact with the database through a web interface.

Security requirements

1. The system shall validate all user input to ensure it does not exceed the size specified for that type of input.
2. The server shall authenticate every request accessing the restricted web pages.
3. The system shall have security controls to protect against denial-of-service attacks
4. The system shall encrypt sensitive data entered by users.
5. The system will only accept valid URL requests.
6. The system will SOA web service security standards.
7. The system shall comply with SSE-CMM capability.
8. The system shall allow users the option to change password
9. The system shall give admin access to change users password

10. Every password shall be hashed.
11. Every password shall be stored in the system database.
12. The password will be case sensitive.
13. System should timeout when there is inactivity for 10 minutes.
14. The password shall be at least 6 characters.
15. The password must include at least one number.
16. The password must include at least one special character.
17. The system shall allow authenticated users to access the resources of the system.
18. All authentication tokens shall be saved on a local device for comparison and need user permission to gain access.
19. The system shall ensure the contents of a message are not altered in transit.

Environmental requirements

1. The system shall use an independent Python virtual environment.
2. The system shall use pip3 to install packages in the virtual environment.
3. The virtual environment shall include all necessary packages compatible with the operating system Ubuntu 20.04 LTS.
4. The system shall have a file named requirements.txt to store all packages installed in the virtual environment.
5. The server Apache shall connect to the virtual environment in the master branch.
6. The server Apache shall use the correct path of the virtual environment.
7. The system shall have a Django development environment up and running on local computers for testing.
8. The system shall have a Django development environment up and running on local computers for development.
9. The system shall use the default port, the internal IP at port 8000, for local testing.
10. The system shall use the default port, the internal IP at port 8000, for local development.
11. The system shall use the default port, the internal IP at port 8080, for global testing.
12. The system shall use the default port, the internal IP at port 8080, for global development.
13. The system shall use the port 443 for SSL certification.

Legal requirements

1. Users shall agree to the privacy agreement when registering for an account.
2. The application shall display a copyright notice visible to users at all time.
3. The application shall display the Kitchen Magician policies for users to read and agreed to comply with in accordance with state and federal law.
4. The application shall display the licensing agreements relating to intellectual property rights.
5. Users shall agree to the code of conduct when registering an account.

6. Personalization and data collection processes should comply with the General Data Protection Regulation (GDPR).
7. The website contains links to other websites and it cannot be responsible for the privacy practises of content of other websites.
8. Users shall not use any recipe from the application for commercial purposes without permission from the admin.
9. Users shall comply with business rules and administrative functions as provided by admin.
10. Users shall not use any video from the application for commercial purposes without permission from the admin.
11. Users shall not use any application content for commercial purposes without permission from the admin.

Marketing requirements

1. All commercials shall go through the approval process before posting on the application.
2. Pages shall contain sponsored commercial approved by the admin.
3. Pages shall contain sponsored advertisements approved by the admin.
4. When referencing KitchenMagician in text as a combined word, use camel case, with no space between “Kitchen” and “Magician”.
5. All commercial on the application shall use corporate style guide colors
6. All advertisements on the application shall use font size approved by the admin.
7. All customer facing web pages will use the corporate style guide colors, fonts and corporate approved logos.

Content requirements

1. All pages and files must be current and accurate.
2. The system shall support the appearance of a component being determined by the type of page on which the component appears.
3. The system shall support the appearance of a component being determined by the location on the page on which the component appears.
4. The system shall support the appearance of a component being determined by the content of the component.
5. The system shall support the appearance of a component being determined by the type of the component.
6. The system shall be able to accommodate any image types, and images must be publishable.
7. The system shall be able to accommodate any image types.
8. The application shall always display the logo at a size that is clear and legible.
9. To ensure legibility of KitchenMagician branding, the system shall use the logos with appropriate sizes and not smaller than 24px.

10. Images in the system shall be browsable.
11. Images shall include alt text.
12. Image size shall not exceed 2 Mbytes.
13. Videos shall be captioned and may also include a transcript.
14. Videos shall stop when users leave the content view.
15. Audios shall stop when users leave the content view.
16. All audios shall display with user-controlled captioning.
17. All videos shall display with user-controlled captioning.
18. The application shall ensure audio and video accessible.
19. The date format for recipes shall be as follows: Month Day, Year.
20. The date format for comments shall be as follows: Month Day, Year.

Privacy requirements

1. The system shall protect user information in accordance to the federal government's Privacy Act.
2. The system shall comply with California Consumer Privacy Act.
3. The system shall comply with California Online Privacy Protection Act 2003 (CalOPPA).
4. Users shall agree to the privacy agreement when registering for an account.
5. Users shall agree to the code of conduct when registering for an account.
6. The company is not responsible for images, videos, or any resources posted by users without permission of the copyright holder.
7. The application collects anonymous data from every visitor of the Website to monitor traffic and fix bugs.
8. The application collects log information including a user's Internet Protocol address, browser type, browser language, the date and time of a user's query and one or more cookies that may uniquely identify a user's browser or downloaded software.
9. The application must support authorized users to be able to access, update or delete any comments, receipts, or users.
10. The application will collect user names only if users agree to comply with the company's policy.
11. The application will collect user emails only if users agree to comply with the company's policy
12. The application will collect user address only if users agree to comply with the company's policy
13. The application will collect user birthday only if users agree to comply with the company's policy
14. The application will collect information on users' search history, favorited, and viewed recipes.
15. The application shall not share personal information with any third parties.

16. The application uses all of the information users provide voluntarily in order to make users' visits on the application possible.
17. The application collects information only to add customized elements to the application or to plan its content more appropriately, based on user interests.
18. The application will allow users to delete their own accounts via emailing the requests.

Testing requirements

1. The application shall be tested during deployment to verify that it functions as intended and that all requirements are met.
2. The application shall be tested before deployment to verify that it functions as intended and that all requirements are met.
3. The application shall be tested after deployment to verify that it functions as intended and that all requirements are met.
4. Prior to launch, the applications shall be placed in a testing environment.

Coding Standards

- **File encoding**
    1. All documentation source files must be in UTF-8 encoding.
    2. All documentation source files shall allow special characters.
- **English Syntax**
    1. The application must use proper spelling.
    2. The application must use proper grammar.
    3. The application must use proper punctuation.
- **Indentation**
    1. There must be a space after giving a comma between two function arguments.
    2. Each nested block should be properly indented and spaced.
    3. Proper Indentation should be there at the beginning and at the end of each block in the program.
    4. All braces should start from a new line and the code following the end of braces also starts from a new line.
- **Coding style**
    1. Avoid using a coding style that is too difficult to understand.
    2. Code should be easily understandable.
    3. Code should be well documented
    4. The code should be properly commented for understanding easily.
    5. Comments regarding the statements increase the understandability of the code.
    6. Length of functions should not be very large.
    7. Functions should be small enough to carry out small work.
    8. Lengthy functions should be broken into small ones for completing small tasks.
    9. Length of methods should not be very large.

    10. Methods should be small enough to carry out small work.
    11. Lengthy methods should be broken into small ones for completing small tasks.

- **Frontend**
    1. All JavaScript code should follow the Google JavaScript Style Guide.
    2. All HTML and CSS code should follow the Google HTML/CSS Style Guide.
    3. The headline on the home page should only take up one line of text, less than 50 characters.
    4. The size of the headline on the home page should be smaller than 200px.
    5. The application must ensure that styles and naming for interactive elements are used consistently.
    6. The application provides sufficient contrast between foreground and background.
    7. The application provides informative, unique page titles.
    8. The application uses headings to convey meaning and structure.
    9. The application makes link text meaningful.
    10. The application writes meaningful text alternatives for images.
    11. The application creates transcripts and captions for multimedia.
    12. The application provides clear instructions.
    13. The application must keep content clear and concise.
    14. The application must ensure that interactive elements are easy to identify.
    15. The application provides clear and consistent navigation options.
    16. The application ensures that form elements include clearly associated labels
    17. The application provides easily identifiable feedback.
    18. The application uses headings and spacing to group related content.
    19. The application style uses rem for font-size.
    20. The application style uses em for padding and margin.
    21. The application style uses em or percentage for widths.
    22. The application does not use all caps.
    23. The style of headlines of commentis shall be bolder.
    24. The max length of comment is 65,535 characters.
- **Backend**
    1. All Python code should follow a derivation of PEP-8 style guidelines.
    2. Whitespace rules and other rules are relaxed (for example, it is not necessary to put two newlines between classes, though that's just fine if you do).
    3. Single-line imports

       Do this:

       ```
       import os
       import sys
       ```

       Do **not** do this:

       ```
       import os, sys
       ```

4. Import Order: Imports should be ordered by their origin. Names should be imported in this order:
    i. Python standard library
    ii. Third party packages
    iii. Other modules from the current package
5. Wildcard Imports: Do not import all the names from a package (in other words, never use from package import *); import just the ones that are needed. Single-line imports apply here as well: each name from the other package should be imported on its own line.
6. Naming conventions for local variables, global variables, constants and functions:
    i. Local variables and global variables should be named using lower case lettering and underscore between words (e.g. local_data. Constant names should be formed using capital letters only (e.g. CONSDATA).
    ii. It is better to avoid the use of digits in variable names.
    iii. The names of the function should be written using lower case lettering and underscore between words.
    iv. The name of the function must describe the reason for using the function clearly and briefly.
    v. The names of the function should be written using lower case lettering and underscore between words.
    vi. The name of the function must describe the reason for using the function clearly and briefly.
    vii. Class names should normally use the CapWords convention.
7. All MySQL code should follow the MySQL Coding Guidelines.

Section 6: Competitive Analysis

Important Feature Table:

Feature/ Company	Taste of Home	Epicurious	Allrecipes	SimplyRecipes	Kitchen Magician
Strength	The site allows user customizations about what they want to see on their homepage, namely the ability to filter by season and occasions, among others.	The site provides multi-faceted approaches to people who want to begin cooking.	The site offers great step-by-step recipes. They also show images of the cuisine and how it would look when finished.	The site offers a suggestion button that shows a variety of recipes a user can prepare when they visit the website. This functionality helps users navigate the site better.	The site showcases popular and highly rated rece opportunities to foodies and chefs alike to bring their best recipes and share with the communities every week. If you are dissatisfied with the recipes you see, we permit users to join groups with other users where they may get an in-depth look into what specific cuisines they prefer.
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	The website is not as compelling to people who are just starting out cooking. It is overshadowed by to Many videos of a	The website is cluttered and doesn't really have consistency in the recipes they show. For example they go from seafood to	The website is cluttered with several option of recipes and is not consistent	The website is new so there aren't a lot of user recipes to pull from. We will lack in information listed since the website is fairly new and

	aren’t really related to it	variety of videos opposed to it being categorized and easy to follow	dessert		will also depend on much of what users input
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 additional the top 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 cooking terms of diets, ingredients, season, etc	Navigation bar is simple, has drop downs and includes a search box. This allows the users to find specific recipes and even direct users to specific food groups which they can locate foods that are similar to their diet by a community that has the same one
Color Scheme	The color choice is a dull and doesn’t really pop out	The color choice seems very dark. The connection between these color and the website don’t match	The 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	The color choice is bright which gives the users an inviting feel to the website. We want an engaging color that makes the user want to stay longer on the website. We see that colors like red and light blue receive a better reaction overall.

Competitive Feature Table:

Feature	Taste of Home	Epicurious	All Recipes	SimplyRecipes	Kitchen Magician
Trending chef/recipe	-	-	-	-	+
Recipe information layout	+	+	+	+	++
Joining groups that share the same diet.	-	-	-	-	+
Ratings/comments	+	-	+	+	++

Superior: ++
Feature exists: +
Doesn't exist: -

Summary of Competitive Analysis:

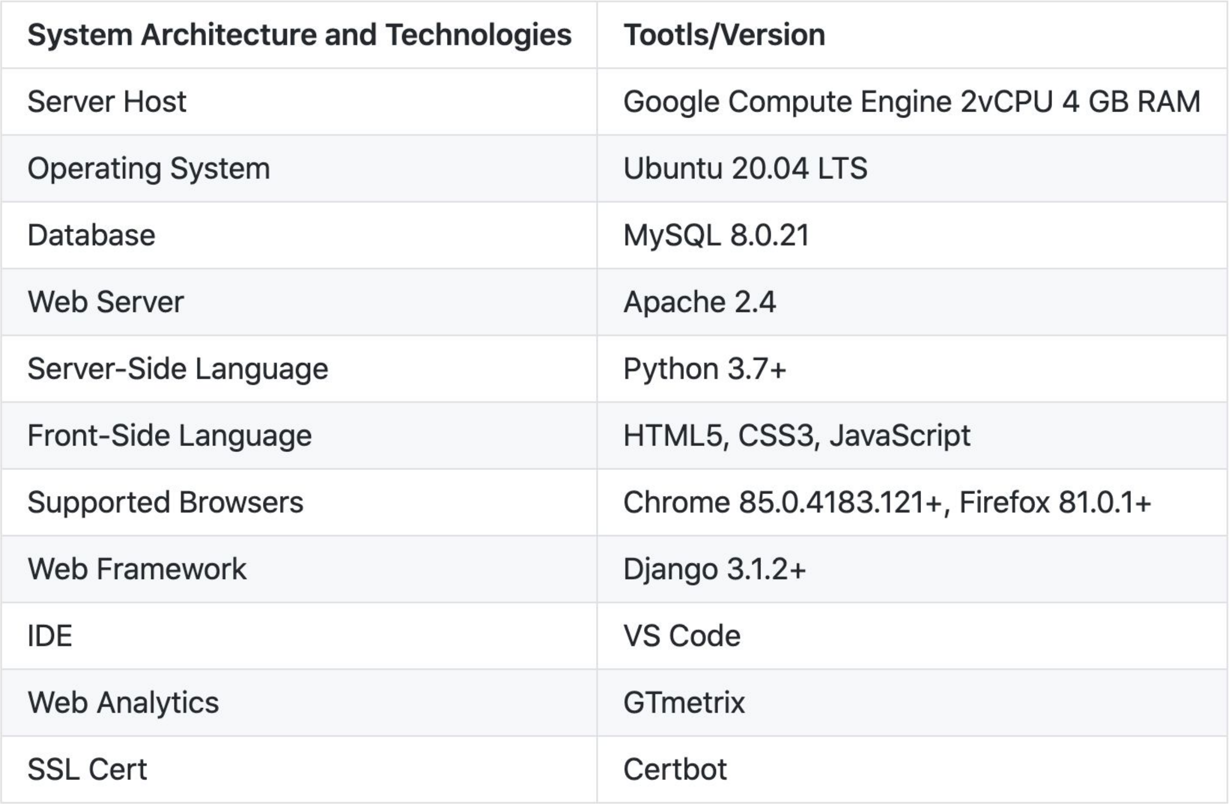
All these recipe websites show us the best food, but one thing that they don't seem to get is that many users prefer to be quickly directed to food choices they enjoy. We've found that the UI of the competitors lack organization and consistency and we want to fix that. Kitchen Magician's UI will set a homepage that will give users a navigation bar to jump right into pages that have dishes that are aligned with their desires. The homepage won't have endless amounts of information.

Kitchen Magician will also introduce groups. We noticed that many of the competitors don't have that community feeling with food. We believe that food brings people together. Users will have the chance to customize what they see by allowing them to join groups with people who enjoy the same foods they eat, and the same diets they have, to their needs. Users will be able to share recipes amongst each other and discuss dishes they enjoy.

Through our competitors we notice they incorporate a spotlight in their homepage. The thing about that is, they disregard the communities opinion and instead try to push recipes that they want to see at the top. For us though, we want to show recipes that the community as a whole feel is extraordinary. This feature will be implemented through a trending recipe. A recipe can become trending by the amount of upvotes it receives by the community. This sets a precedent that the community chooses what is trending and not us.

Lastly, many of our competitors have a lot of clutter when you reach their recipe pages. We will minimize clutter on the page by simply putting the recipe in the center along with the upvote, share and comment section near the bottom of the recipe. As we put ourselves in the space of our own users, we all agree that when there is too much happening all at once, the user gets overwhelmed and wants to move on. We at Kitchen Magician have a goal in making things clearer and more catered for the user, resulting in a better experience overall.

Section 7: High-Level System Architecture and Technologies Used



System Architecture and Technologies	Tootls/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	Python 3.7+
Front-Side Language	HTML5, CSS3, JavaScript
Supported Browsers	Chrome 85.0.4183.121+, Firefox 81.0.1+
Web Framework	Django 3.1.2+
IDE	VS Code
Web Analytics	GTmetrix
SSL Cert	Certbot

Section 8: Team

1. Nicole Pang (Team Lead):
    a. Executive Summary, Use cases (3), section 6, gave input/feedback, applied feedback to individual and shared sections, set up meeting, checked in with team members, assigned M1 editor, assigned individual sections, offered assistance to team member, submit M1V1 link to CEO for grading, participated/attend team meetings, set team deadlines
2. Jeff Cheng (Frontend Lead):
    a. Section 4, executive summary, use cases (1), participated/attend team meetings, gave input/feedback, applied feedback to individual and shared sections
3. Allen Sun (Backend Lead & Database Master):
    a. Section 7, executive summary, use cases (1), section 5, participated/attend team meetings, applied feedback to individual and shared sections
4. Paul Asu (Github Master):
    a. Section 5, executive summary, use cases(1), participated/attended team meetings, applied feedback to individual and shared sections
5. Kevin Wei (M1 Editor):
    a. Section 3,section 4, executive summary, use cases (2) , formated M1V1 pdf, exported M1V1 pdf for submission, participated/attended team meetings, made sure team stayed on track during meeting, gave input/feedback, applied feedback to individual and shared sections
6. Kevin Ortiz (Undefined):
    a. Section 6, executive summary, use cases (1), applied feedback, participated/attended team meetings, gave input/feedback, applied feedback to individual and shared sections

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 learning and practicing: **DONE**
- 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**