Project Specification List(Product backlog)
Team 91 (Food Chaser)
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1. Database design and implementation - *Shuai Shao*

2. User account system - *Huiwen Zhang*

The user account system manages and handles the basic user login/register behaviors, including, but not limit to:

- **Registration and email confirmation**. Upon registering, the user will specify his/her user name, email address and password with an email confirmation(Same as Grumblr). We may support direct email address login instead of user name as an additional feature in the future.
- **Login / logout**. We'll use the default login authentication function in Django for users who have registered on the site. We will also enable users to log in through third-party authentication tools with respective APIs such as Facebook, Twitter account, etc., for their convenience.
- **Change password by email.** We only allow site-registered users to change their password by verifying the emails. Letting third-party authentication user change their password is hard to implement so far.
- **User following.** Much like a social network, because our web site is a place where everyone can create/post his recipes, adding user following feature is vitally necessary. Essentially, the user can follow other users by clicking from a (suggested) user-roster. Then he is able to view the streamed recipes from his followed users. A user can choose who to follow based on personal interest, cooking proficiency, creativity, tastes, etc.
- **Profile viewing and editing.** The user can edit his own profile and view others' as well.
- **Trial feature.** Non-registered user can only view part of the web site content and have restricted access to our tools until he/she registers. For example, a non-registered user may only view up to 10 other users' recipes randomly on our website, and our website won't provide him/her the advanced searching (users) feature.

3. Basic recipe features - *Tianyuan Ding*

This section defines several actions that an user may perform to a recipe.

- **Creating a recipe.** This is one of our most basic features for our app. To create a recipe, he needs to fill out a form that contains ingredients, cooking utilities, concrete steps, etc. Image uploading is preferable for him to make this recipe more attractive. Temporary drafting feature will also be implemented such that a user can store a half-way done recipe as a draft.
- **Comment/rank recipe.** Other users can make their comments or rank for a recipe to reflect their personal opinions. Those comments/rankings will significantly affect the

popularity of a recipe so that we can select most popular ones and recommend them to new users. Recall that we will have a weekly/monthly/yearly ranking based on users' rating.

- **Save recipe drafts.** The user can save a recipe draft and may come back to edit.
- **Edit/delete a recipe.** The user could modify or delete a recipe.
- **Share recipes.** The user possibly can share some recipes via his social networking tools such as Facebook, Instagram(pictures!), and Twitter, etc.

4. Recipe Manipulation - *Xing Chen & Shuai Shao*
- **Weekly/monthly/yearly ranking.** We will make and update period ranking by collecting each recipe ranking and sort them. Those highly ranked recipes will be suggested to the users.
- **Advanced keywords/categorized searching.** There will be a drag-down suggestions pop up when the user types keywords in the searching bar. Also, we will categorize searching results of recipes based on category, ingredients and calories.
- **Recipe suggestion.** We will recommend recipes to users for their reference based on user's search history and taste preference. Moreover, the suggestion will be updated dynamically.
- **Recipe customization based on scenario.** Based on user's search history and popular recipes, the application will suggest a combination of recipes to cater to some number of servings and a certain circumstance like business dinner, family meal, party servings and so on.
- **Recipe from leftover.** Based on user's input of ingredients, some recipe will be suggested using the ingredients.
- **Calculate the ingredients needed according to the number of servings the user provides.**
- **Bookmarklet.** Dragging a page (recipe) that is not on our website to your recipe collection on our website. In short, this is just like an html bookmark stored on our website.
- **Calories / nutrition calculation.** The app can also calculate nutrition facts for a recipe, specifically for users who care much about healthy diets. May integrate some health-related APIs such as Fitbit api.

5. User & application interactions - *Tianyuan Ding & Huiwen Zhang*
- **Email newsletters.** The app will periodically send email newsletters to users about popular recipes, new recipes, popular users, etc. Users can choose to turn off email notifications.
- **Online picture manipulating using Instagram API.** Or just directly share the picture to Instagram. We want to make use of advanced picture editing apis to enrich our UI.
- **Posting video to youtube.** A user can optionally record and post a video of cooking steps to our website, which will then be delivered on youtube.

- **Timer and Alarm for each cooking step.** A timer can guide a user who want to carry out procedures from a recipe. The timer can notify a user of a specific step with an amount of time.
- **User Level.** We keep a record of a user's logging-in duration on the website as one of the factors of calculating a user's level. Higher user level means higher permission level. A user's level is based on logging-in duration, number of recipes posted, and popularity of his/her recipes(number of favorites, shares and average ratings.)
- **"Editor" Authorization**. A high level user can apply for an "Editor" title. Once manually approved, an "Editor" can submit his own reviews on food and recipes, which can be pushed to daily headlines.

6. UI features - *All team members*
   - **Pagination.** Pagination is for displaying recipes usage.
   - **Real-time search suggestion.** The result will be updated simultaneously according to user input words.
   - Other detailed features haven't been decided. Should expand to a lot more.