Techbow hackathon problem 3: Recipe Search System
Website operating instructions

Team: USC1024 (Chuanxi Zhang, Kan Chen, Wenzhuang Tian)
2018 Nov. 10

- **Website Building**

We provide our code in the folder Real-Hackathon-Web. To build the website, there are mainly three steps:

(1) Install MAMP (Mac OS) / XMMAP (Windows OS) for running server

(2) Move the folder Real-Hackathon-Web into the folder "htdocs" under path of server app (like MMAP, see the figure below)

Figure 1. Put code folder under the path of server application like MAMP

(3) Run the server app, then open the web browser (like Chrome) and go to the website: http://localhost:8888/Real-Hackathon-web/index.html. We suggest to clear cache data of browser and refresh the page if there is any problem.

Note: If there is blank page (no pictures of recipes in the index page, not like Figure 2), try to modify a new API key in line 7 of php/crossdomain.php.

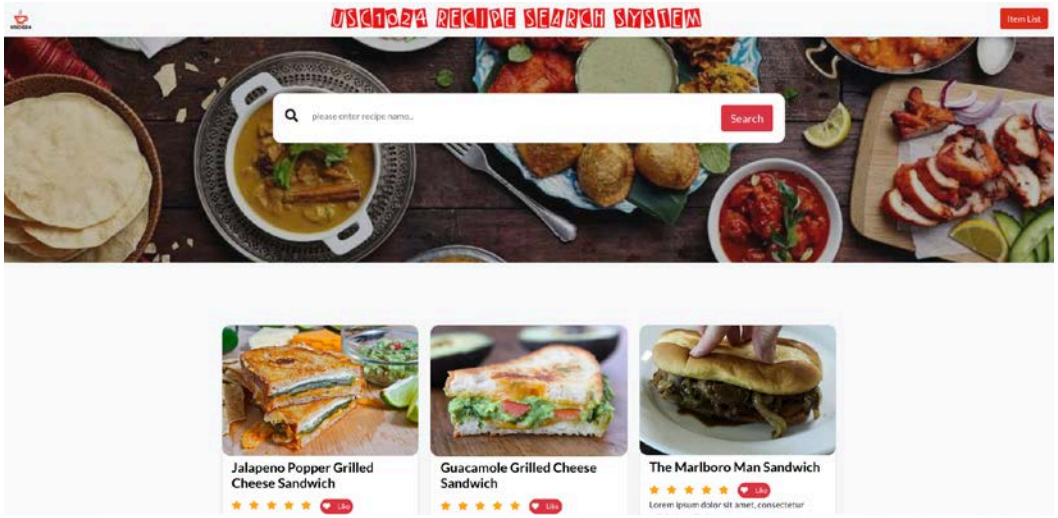

Figure 2. Homepage of Recipe Search System in the http://localhost:8888/Real-Hackathon-web

- **Website Running & Features**

  We design our website using the combinations below.

Html	Bootstrap + Font Awesome
JavaScript	Vue.js + jQuery
Backend Communication	PHP

Basic features

Search: Users can just type any food they are interested in the search bar and then hit the "search" button in the homepage of our website. The search results are ranked based on user ratings from external website's API. We return each recipe's rating as stars, like buttons (see below) and user comments. The pictures' widths are restricted to 1/3 of webpage while are allowed to have flexible heights. The result page is of "Pinterest" style.

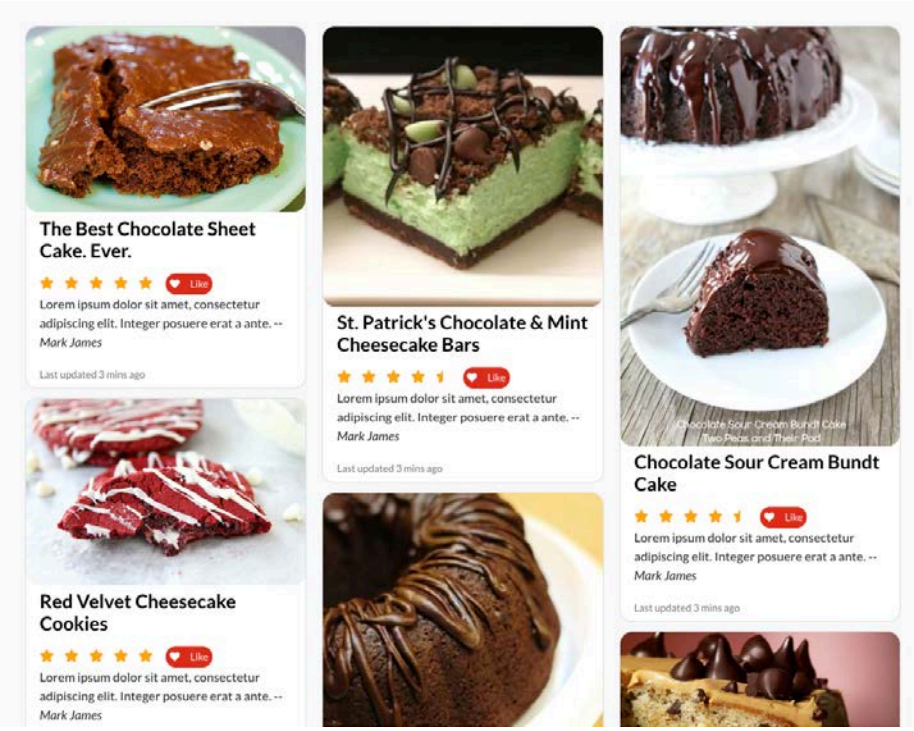

Figure 3: Search results of "cake" in the page

Pagination: Since we design the result page as Pinterest-like style, the pagination is triggered automatically when user scrolls down to the end of page. Using specific buttons is not visually attractive based on our experience (see the Figure 5, Figure 6).

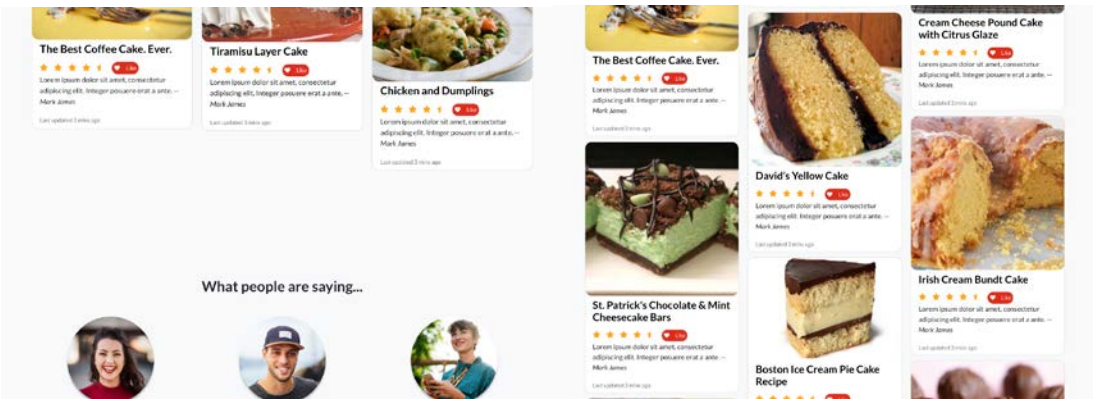

Figure 5. Auto-pagination is triggered when users reach the end of page

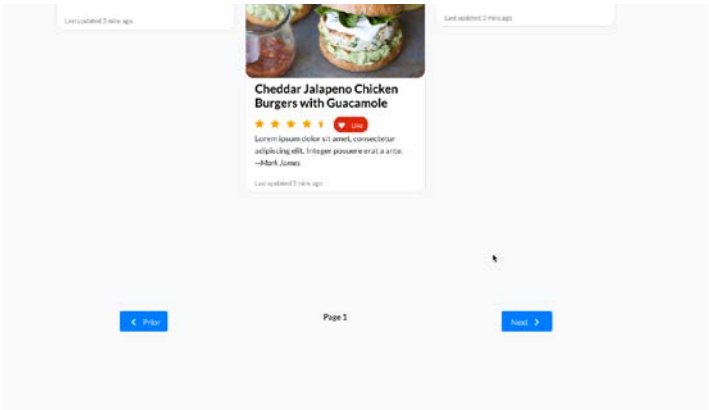

Figure 6. Specific pagination buttons are not visually attractive

Recipe details display: When users are interested in some recipe in the search result page, they can click the title or picture of the recipe to enter the recipe detail page, as shown in Figure 7.

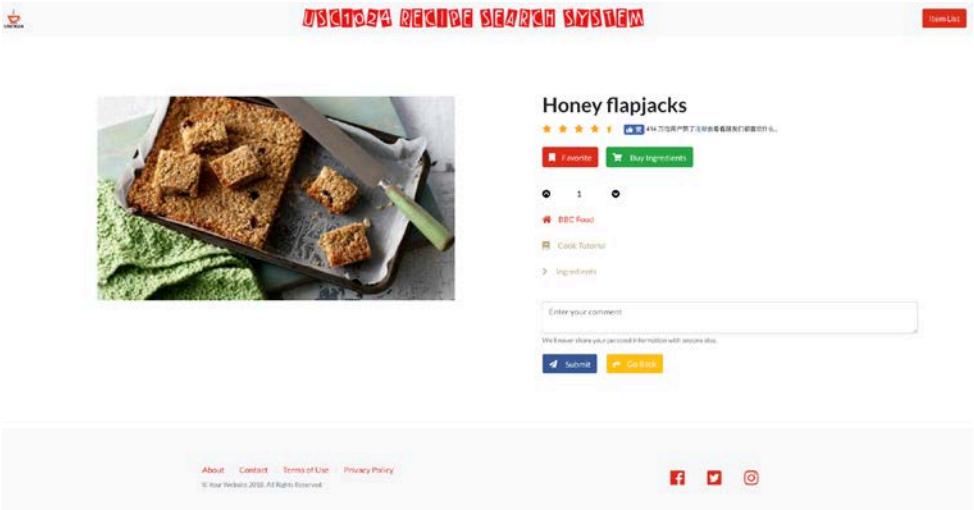

Figure 7. The recipe detail page

We list the favorite button, buy ingredients button, submit comments and go back functions for user to operate, which will be described later. Besides, we list the publisher ("BBC Food" in Figure 7) with hyper link to their homepage. The ingredients details are initially folded, when users are interested, they can click and see the ingredients (Figure 8). They can click again to fold the details.

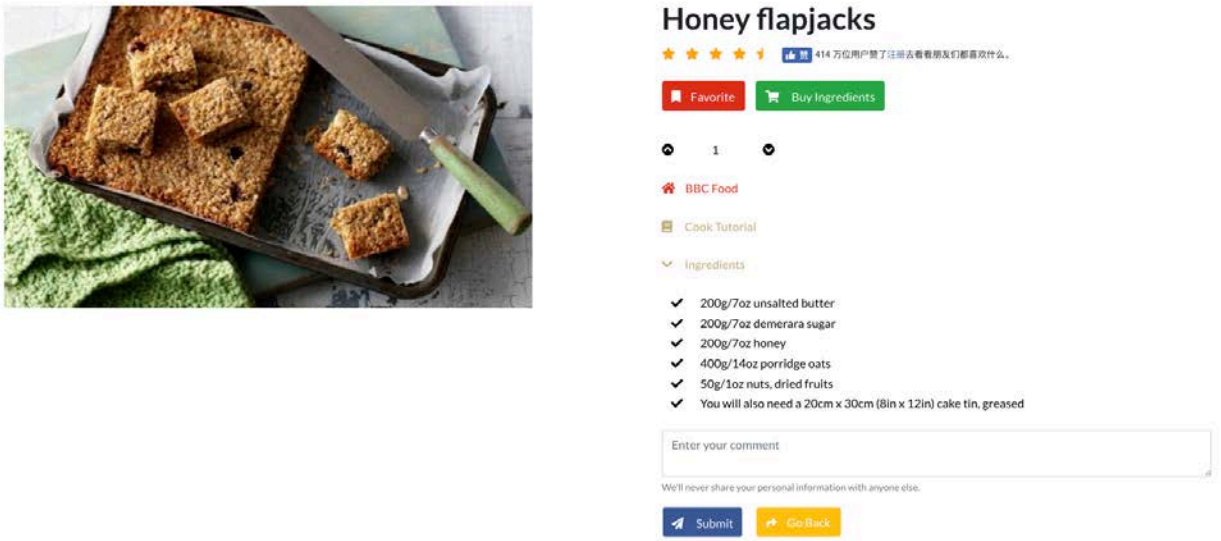

Figure 8. Check ingredients of recipe when users are interested (click ingredients).

Favorite of users: If users are interested, he can click "like" button in the search result page or "Favorite" button in the recipe detail page. After clicking, the recipe will be stored in the users' favorite list and the button will be changed to "unlike" and "remove" (See Figure 9 and Figure 10).

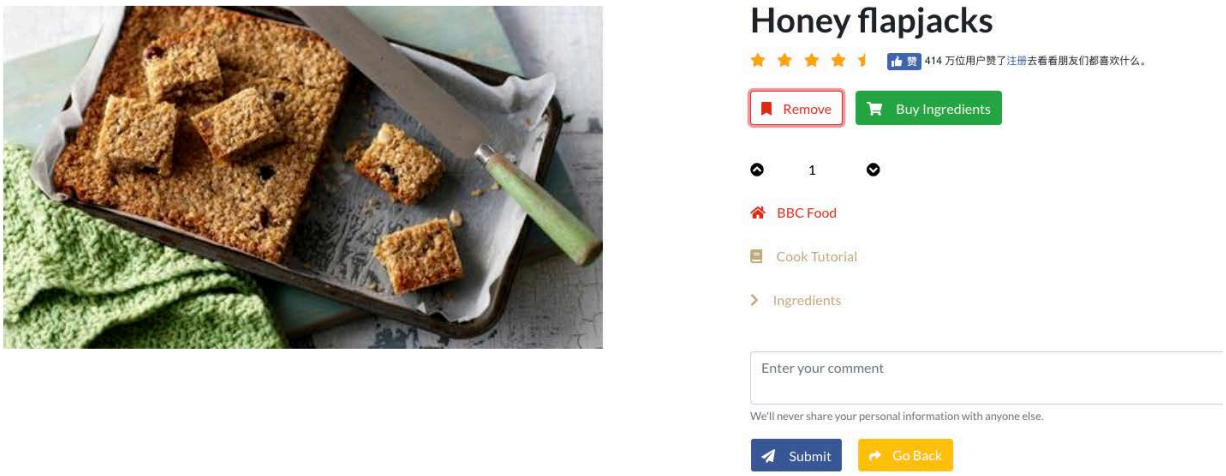

Figure 9. After clicking "Favorite" button, it will become "remove" and users can click again to remove the recipe in their favorite lists.

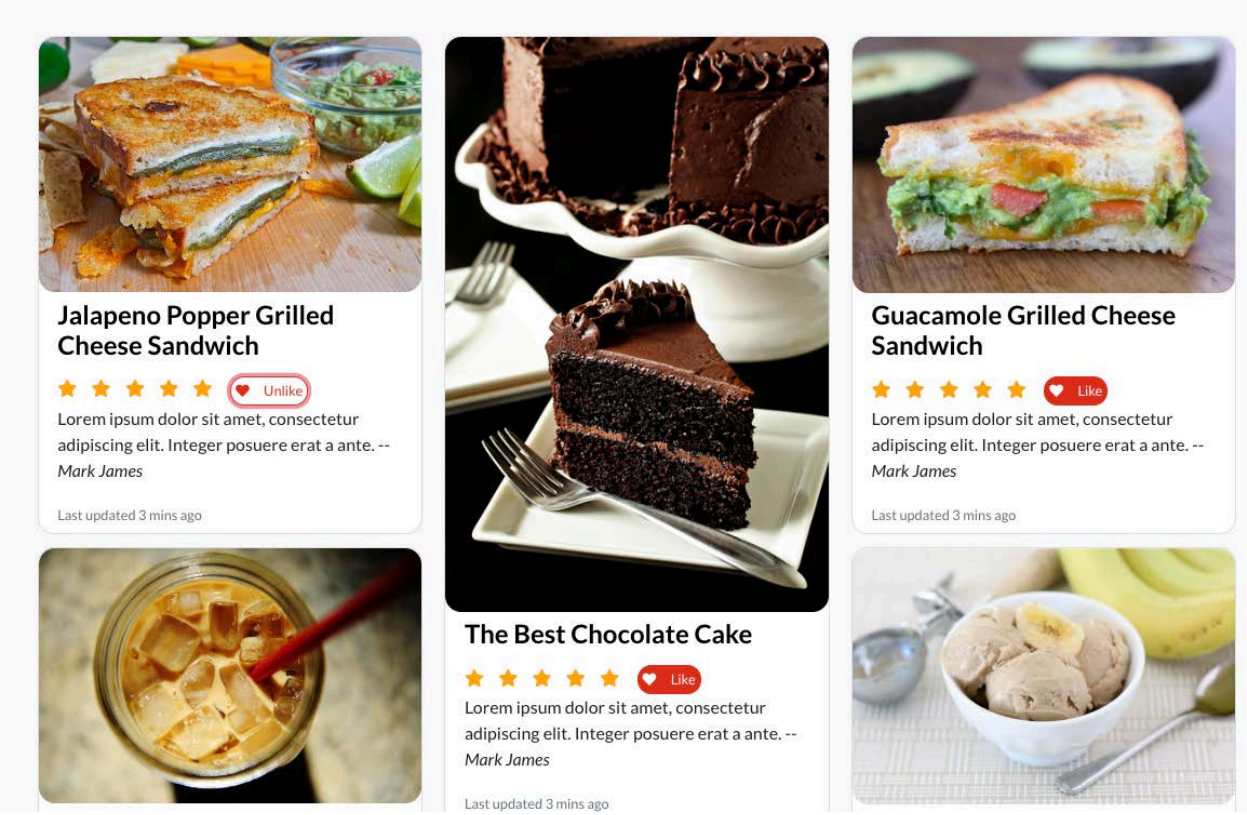

Figure 10. Similar to “Favorite” button, users can directly click “like” button to save their interested recipe and remove them by clicking again.

Serving of recipes: Users can increase / decrease the serving numbers of the interested recipe. The website will automatically calculate the quantity of ingredients after the user put the recipe into their shopping list, by clicking the button “Buy Ingredients” (Figure 11).

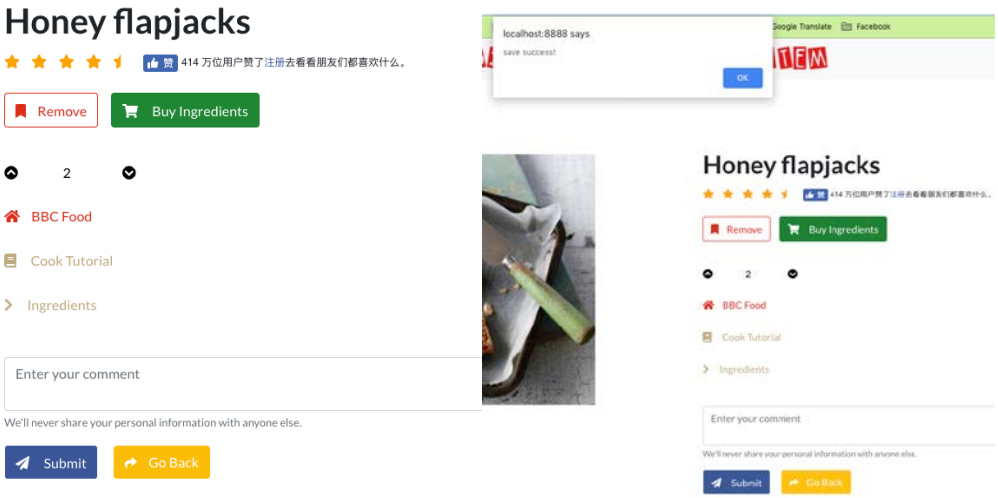

Figure 11. Modify number of servings by clicking upper and down buttons. After that, users can click “buy ingredients” button and there will be a message box to notify users.

Directions: If users are more interested in the original publishers and cooking ways, they can just click the name of publisher which can transfer them to the original website. Besides, they can click “Cooking Tutorial” to view more detailed cooking tutorials if they are interested.

Shopping list: After users save their ingredients by clicking “buy ingredients button”, they can click the button on the right-top side “Item List” to view their shopping list (Figure 12). If they are interested in the ingredients they want to buy, they can click “Shopping List” to view details of their ingredients. Besides, they can also click “Recipe List” to view favorite recipes (Figure 13).

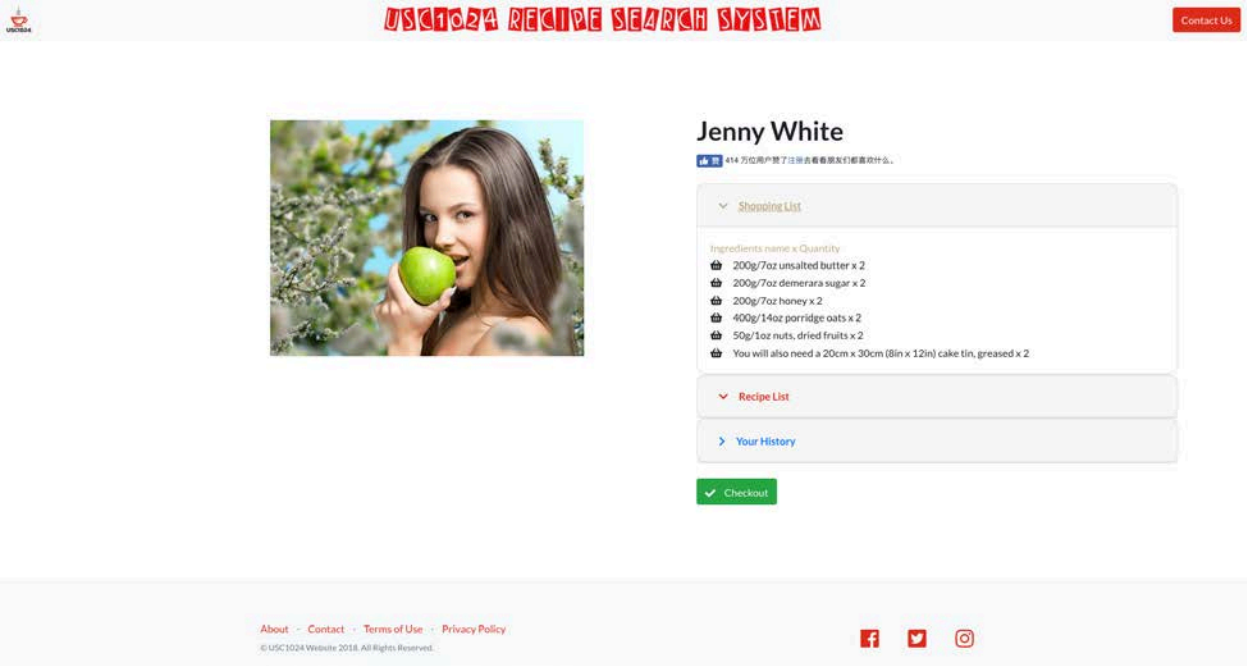

Figure 12. Users can view their shopping list in the Item list page

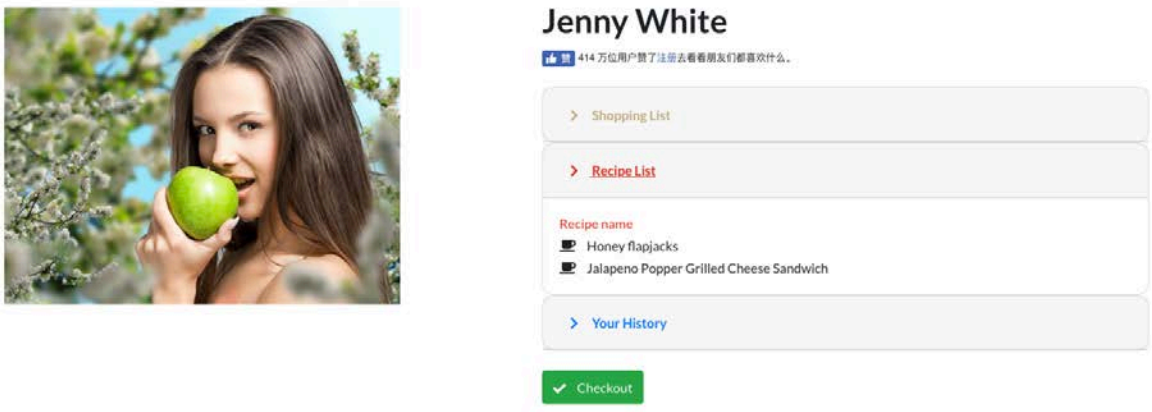

Figure 13. Users can view their favorite recipes by clicking Recipe list

Bonus features

Error handling: Basically we did four things to handle errors.

(1) We add 404 page if an error happens (Figure 14)

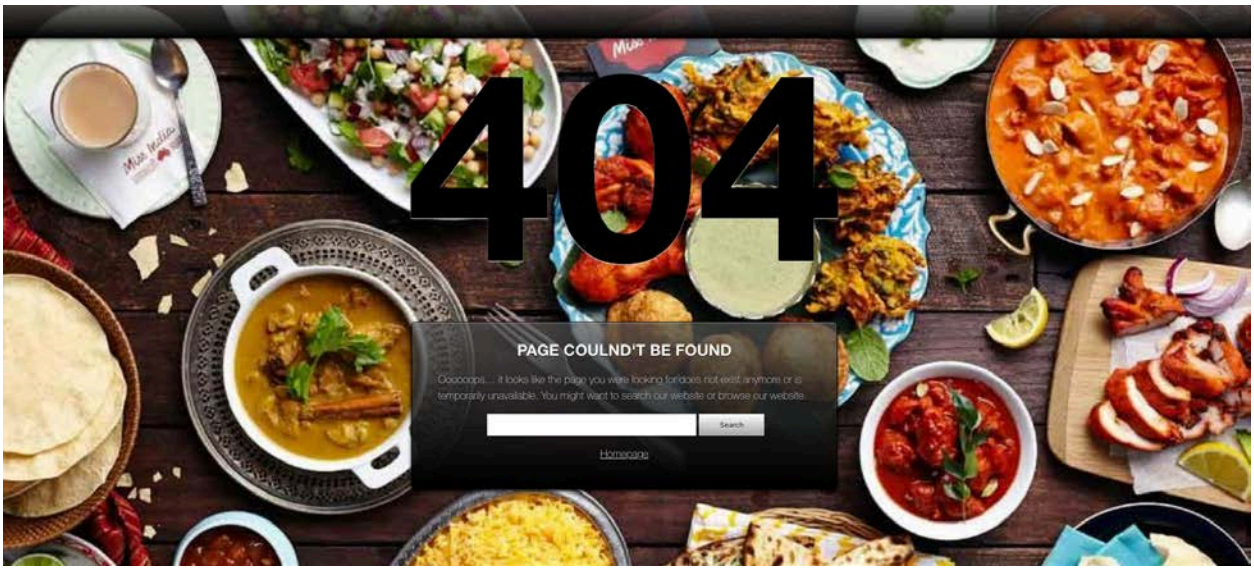

Figure 14. 404 page

(2) We use vue computed to remove the empty string of inputs.

(3) We use vue-vloak to remove variable name if the network is offline.

(4) We add index.html in each folder to ensure the structure of website not be revealed.

Storage of user behaviors: Users can click “Your History” to check their behaviors in the Item List page (Figure 15).

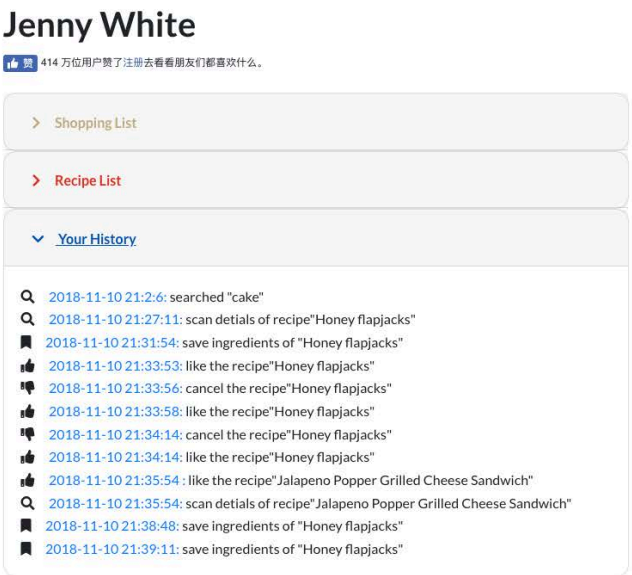

Figure 15. Users can check their own activies in the Item List page

Typehead function: We implement the typehead function in the search bar. When users type in some search word, we can locate the indicated food name more efficiently.

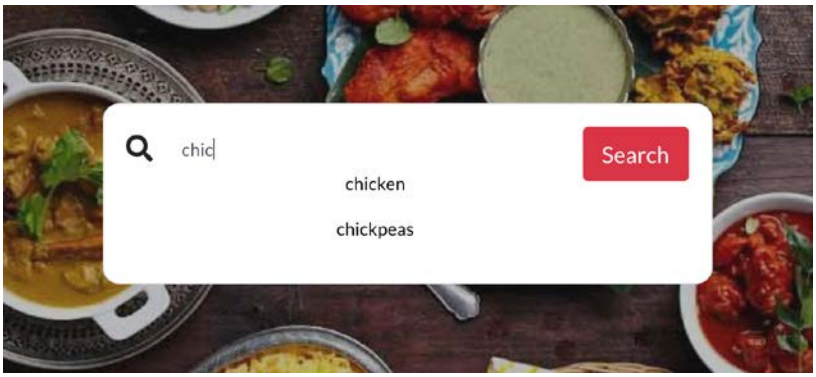

Figure 3: Auto-completion of our search engine