
IT 314 – LAB 02

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OBJECTIVE:

Functional and Non-Functional Requirements, Use-Case Diagram, and Process Model.

FUNCTIONAL REQUIREMENTS:

1) USER LOGIN:

The user would first have to login into the system or create an account if (s)he doesn't have any. To create an account, the user has to enter their email id, password and a unique username. After creating an account, the user can log in.

After logging into the system, the user can see their profile or dashboard.

2) SEARCH FILTER

1. **Duration:** The user can search dishes and recipes based on the time required for making a particular dish.
2. **Ingredients:** The user can search for dishes and recipes based on available ingredients. The dishes with the most matching ingredients are returned.
3. **Type of Cuisine:** The user can select the type of cuisine that (s)he wishes to have. These may include continental, Indian, Mexican, regional etc.
4. **Health Requirements:** The user can select or choose a particular dish or recipe based on a range of calorie intake.
5. **Ratings:** a way to filter based on the average ratings by the various users.
6. **Meal:** The user can filter out what meal (s)he wants from breakfast, lunch, snacks and dinner.

3) ADDITION OF NEW DISHES

Users can add a new dish or recipe to the database if they wish to through a form.

4) RECOMMENDATIONS AND 'DoTD'

The user sees recommendations on the home page based on their past searches. A "Dish of The Day" is also available for the user, which is selected randomly.

5) RECIPE TUTORIAL

A user can see the step-by-step instructions on how to cook the item, which the chef of that item provides. Alternatively, an embedded video link can also be provided.

6) PREMIUM USER

A user can search for recipes a limited number of times, after which they need to buy a subscription to the website to get unlimited access.

7) DISH RATING

The user would have the feature to rate dishes based on their experience. Each dish would thus have its rating, which would be helpful while searching/filtering.

8) VEG/NON-VEG/VEGAN

The user would have the option to filter out all the options or dishes available.

NON-FUNCTIONAL REQUIREMENTS:

1) PERFORMANCE:

1. The software should be able to handle multiple users simultaneously, so the server should be compatible with heavy traffic.
2. Software should respond quickly to user queries.
3. Software should work with minimum lag time and access the database in the shortest time possible.
4. The software should have high throughput to ensure that sound events are recognized and logged in real-time.

2) SCALABILITY

1. Since the number of users can increase soon, it should be scalable.
2. Performance should be degraded while implementing scalability.

3) SECURITY, PRIVACY AND DATA INTEGRITY

1. The user's data should be kept secure for privacy reasons.
2. The software should be safe from unauthorized access, and no third party should be able to interfere with the user data.

4) ACCESSIBILITY AND USABILITY

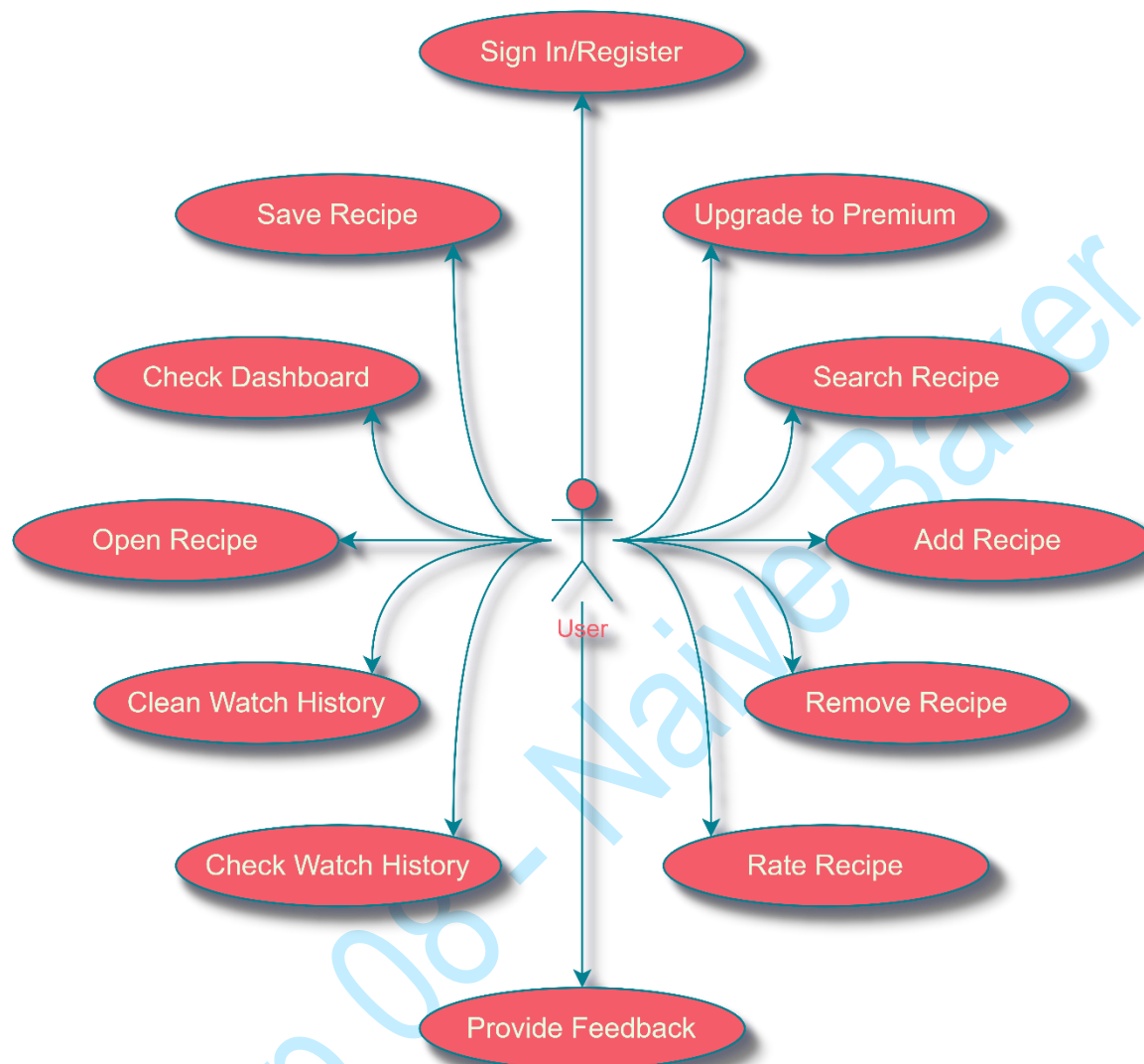
1. The software should be easy to access and should be interactive.
2. The software should have a straightforward user interface.
3. Recipe queries latency should be minimum.
4. User registration and login should be easy and quick.

5) RELIABILITY

1. The software should be reliable and provide accurate results based on user needs.

USE CASE DIAGRAM AND DEVELOPMENT MODEL:

The initial version of the UCD for the project can be as follows:



A possible development model that can be used is **Iterative Enhancement Model**. It is justified by the fact that the requirements for the project are subject to change during the software development life cycle. Also, the end product to be delivered seems to have a complex structure involved which is challenging to modularize.