

NutriSpec

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1 Introduction

1.1 Motivation

Proper nutrition is essential to lead a healthy life. Adequate nutrition can help become more productive and can create opportunities to gradually break the cycle of intermittent illnesses which can prove to be fatal in the long term. Nutrition is about eating a healthy and balanced diet.

Nutritionists and dietitians are experts who suggest and promote food as a remedy for many illnesses and disorders. They prescribe diet plans and set goals which are made as per users need. But the services provided by these experts are not cheap. A nutritionist's education, experience and location are factors in determining how they charge for the service.

This project is not only to make these services available at lower costs but also to provide them with live guidance from an expert for accurate diagnosis.

1.2 Objective

Our application hopes to fulfill the following objectives

a) To assist users to follow proper diet

To be able to function properly, our body needs all the nutrients that come from food, that is proteins, carbohydrates (sugar) and fats, plus vitamins and minerals. To help maintain a healthy weight and have the best chance to stay in good health, balance is key.

b) To monitor food logging

Food logging would help user to be more aware of the consumption of food. This would help users to track the amount of calorie intake throughout the day. Details about the type of food the user consumes would determine the correct eating habits the user is supposed to imbibe. This would also help user to monitor his progress.

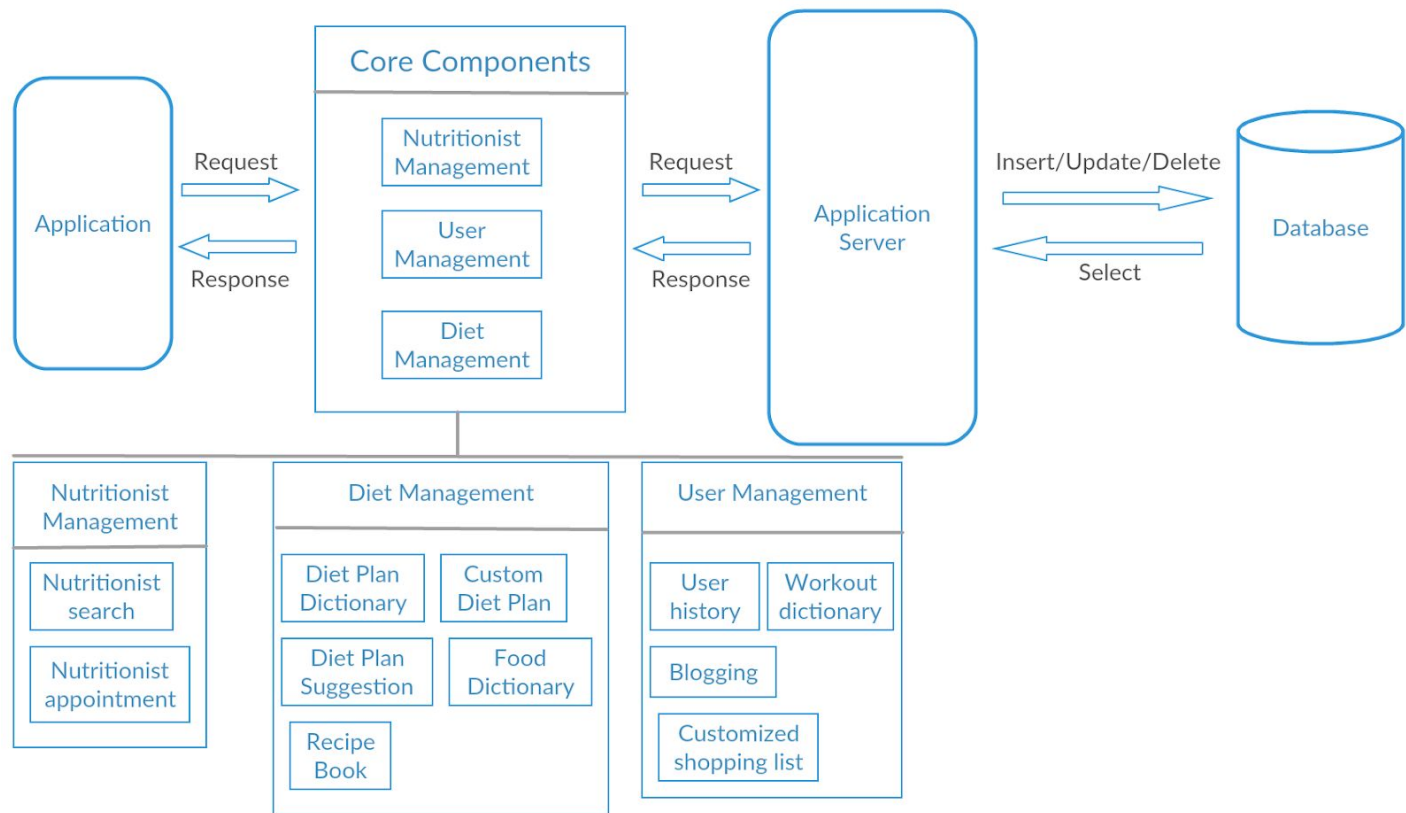
c) To save user's time

First important step for the user is to search good nutritionist, this application helps the user to search and get in contact with nutritionist by looking at his previous ratings and reviews. The application will provide inbuilt diet plans for users having different health related requirements. In case the user does not know about the recipe of particular food item the application can provide recipe for diverse food menu's. Also, the application helps users to view and follow workout plans available in the application as well as a nutritionist can design custom workout plan for the specific user's health requirement.

d) To provide personalized user experience

Registration of each user to help monitor the individual separately and accurately. The record of user's history would be analysed to ensure better diagnosis which would be concentrated to the concerned user. User Personalization would also make users more engaged in the activities which would increase the probability of completing the tasks and thus resulting in maintaining good health. Relevant and tailored experiences also boosts user retention.

2 System Architecture



2.1 Application

This component houses the user interface of the application. These consists mainly of pages for each of the use cases and modules inside the system.

2.2 Core Components

2.2.1 Nutritionist Management

This component deals mainly with searching and making and appointment with the nutritionist. This module contains all the details associated with nutritionist. The ratings associated with every nutritionist is also maintained in this component. The user search queries shall be handled by the details based on this component eg location of the nutritionist, ratings(numeric and textual) of the nutritionist.

2.1.2 Diet Management

This component specifies all the dietary planning associated to users. These dietary plans are assigned to the user by nutritionists. This component contains two major containers:

- a) Recipe Book: Book containing all the instructions needed to prepare a dish. These instructions are recommended by nutritionists and are therefore precise on the amount of calories and fat a dish must contain.
- b) Food dictionary: These dictionaries contain ready-made dishes made from above recipe book.

It is not necessary for a nutritionist to associate a dish from the existing food dictionaries and can create a custom food(dish) from the aforementioned recipe book which is specifically targeted as per user deficiencies. The nutritionist can also get dietary suggestions based on the user profile while associating a dietary plan.

2.1.3 User Management

This component contains information of all the users in the system. The user and the nutritionist has access to the user's history and can generate monthly or weekly reports to gain insight into the activities. The user is also suggested with workout activities from a dictionary which is based on user's goal. User's can also post blogs which has a view scope limited only to other users. This component contains a suggestion view for shopping list which is system computed based on user's deficiencies.

2.3 Application server

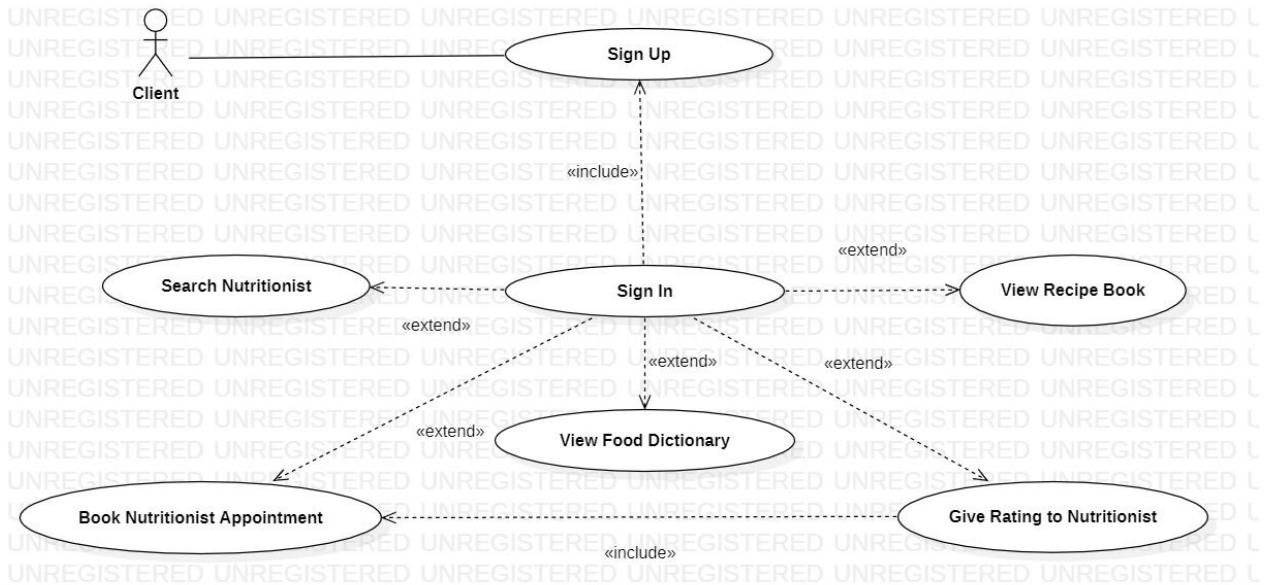
The application server provides access to the data for the user. It serves as an interface between the user and the database server, and hosts the application. The requests sent by the user are validated and processed to generate a response which is then sent back to the user.

2.4 Database

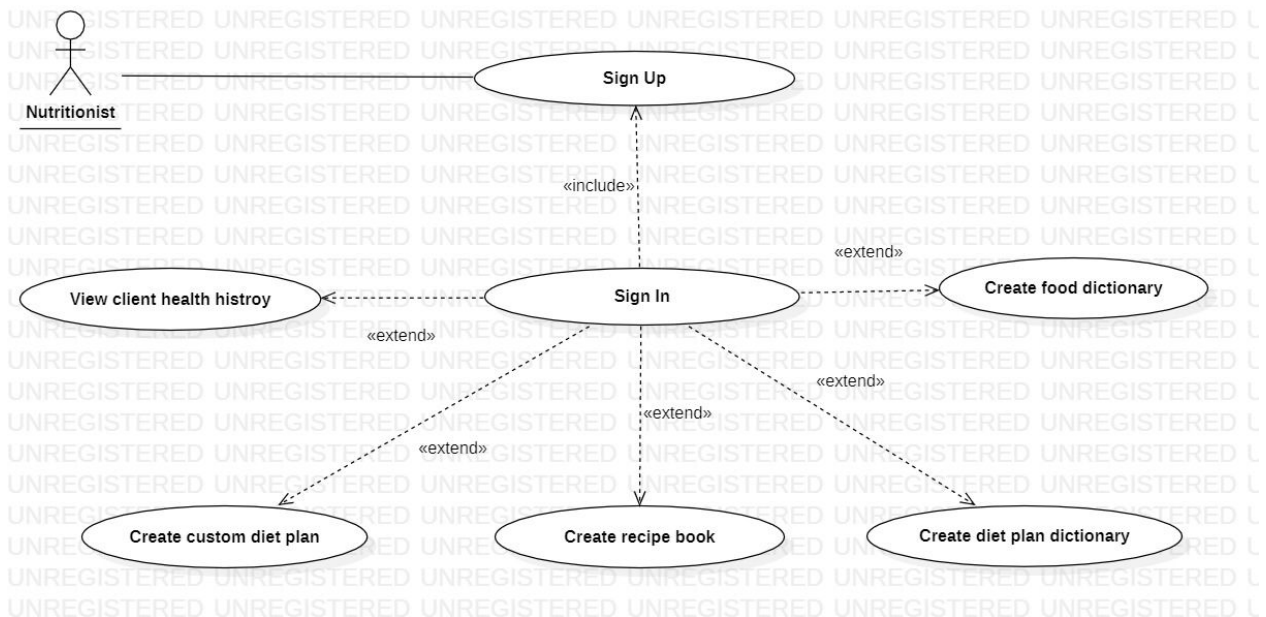
The database server provides the data requested by the application server on behalf of the user. The database server processes queries and generates data which is sent back to the application server. The database houses all the information about users and nutritionist and there associations.

3 Use Cases

3.1 User Management

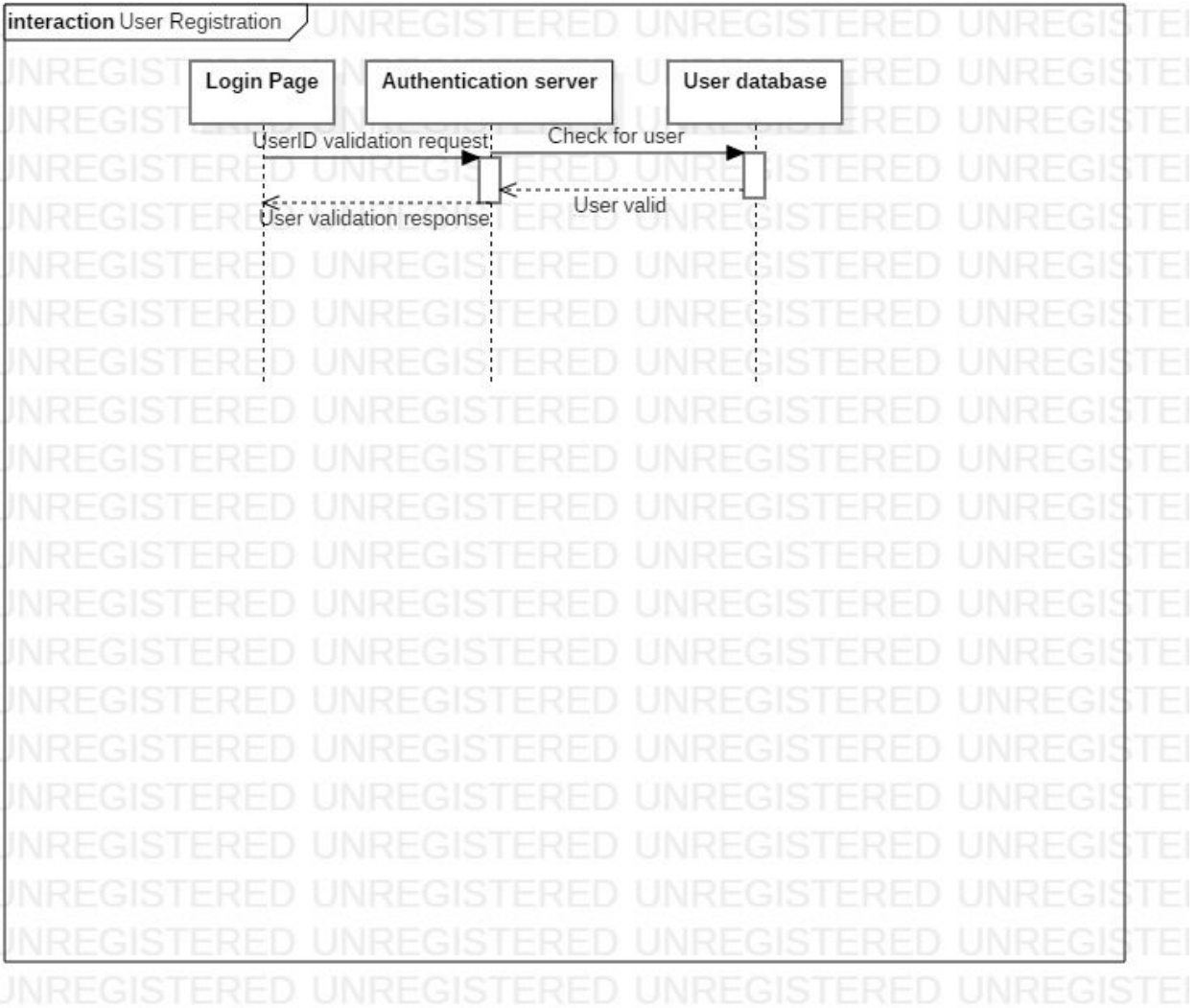


3.2 Nutritionist Management

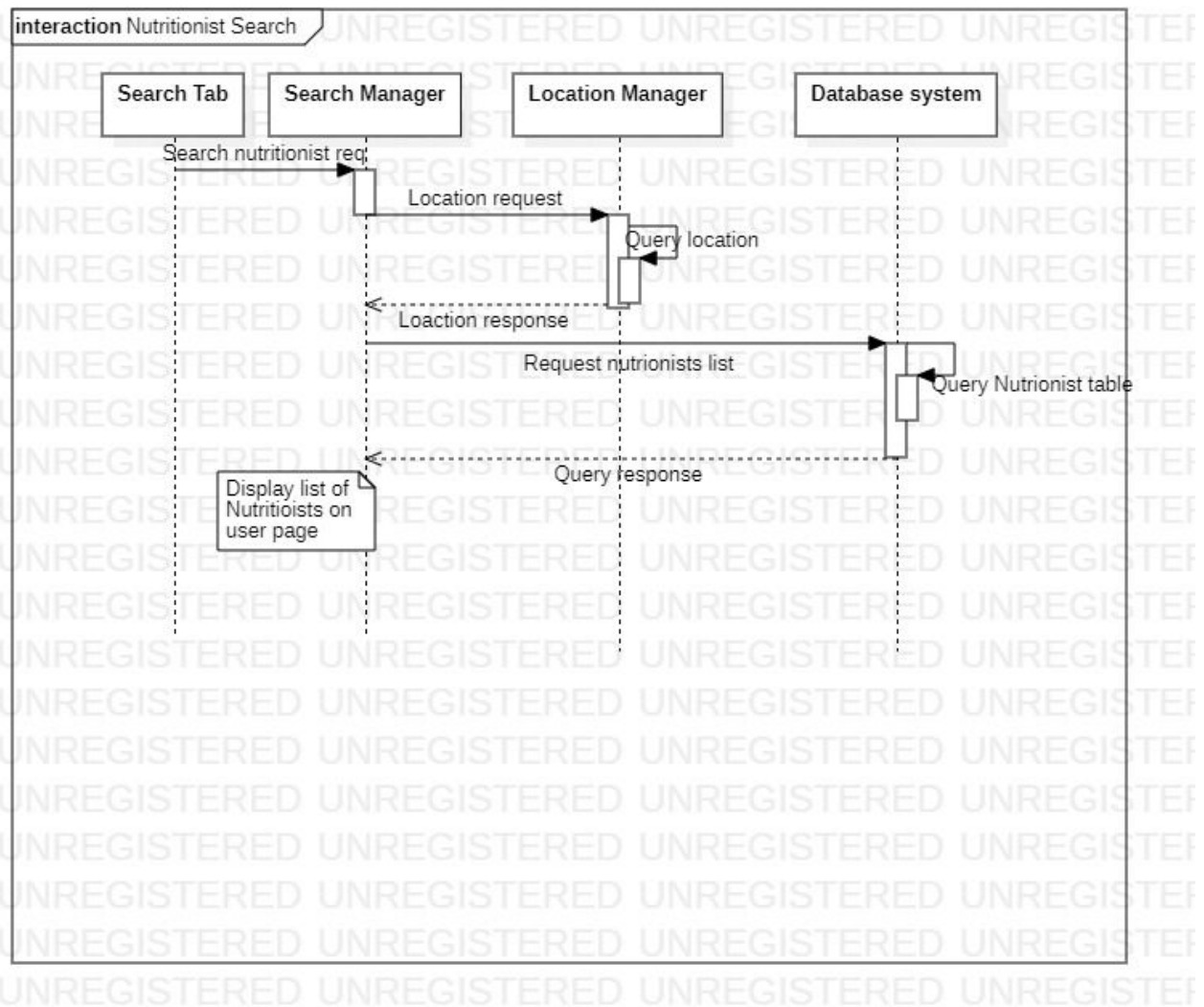


4 Sequence Diagram

4.1 User Login



4.1 Nutritionist Search



5 Class Diagram

