

## **Nutritionist App Case Study**

1	Name of the Project	<b>Nutritionist App</b>
2	Objective/ Vision	<p>Build a system to search for a specific food to find it's nutrition details, show list of matching food, view the nutrition content for a selected food and bookmark favorite food for later reference.</p> <p>The application needs to search for food and find nutrition data for a selected food by registering with the following link and get API key required to call the APIs.</p> <ul style="list-style-type: none"><li>- <a href="https://fdc.nal.usda.gov/api-key-signup.html">https://fdc.nal.usda.gov/api-key-signup.html</a></li></ul> <p>The rest end point details are available</p> <ul style="list-style-type: none"><li>- <a href="https://fdc.nal.usda.gov/api-guide.html">https://fdc.nal.usda.gov/api-guide.html</a></li></ul>
3	Users of the System	All Internet users
4	Functional Requirements	<p>1. User Module</p> <p>On launching the application, the user should get the login page. The login page should have a link for registration using which the user should be able to register.</p> <p>On successful registration the user should be taken to the login page. Upon login, the user should be taken to the home page.</p> <p>Home page should have proper UI elements to search for food based on food description, food type, published date.</p> <p>Home page should have proper navigation links to logout, fetch recommended food etc.,</p> <p>2. Search Food Module</p> <p>User should able to search with different criteria (based on availability of rest end point) like</p> <ul style="list-style-type: none"><li>a) Ingredients</li><li>b) Brand Owner</li></ul> <p>Sorting should be implemented (based on selected field - like description, food type, published date)</p> <p>3. Recommended Food Module</p> <p>Fetch all the food items based on the brand of food which the user ordered mostly.</p>
5	Non-functional requirements	<ul style="list-style-type: none"><li>a) App should be accessible from any location with access to the Internet.</li></ul>

		b) App should be responsive to display consistently across multiple device screens. c) App should have an intuitive UI that can be operated by novice-expert Internet users
6	<b>Tools and Technologies to be used</b>	1. VCS : Gitlab 2. Middleware : Spring Boot 3. Front end : Angular/React 4. Data Store : MongoDB / MySQL 5. Testing : JUnit, Mocha, Chai, Jest, Protractor 6. Container : Docker 7. Bug Fix : Sonarlint 8. CI : Gitlab

## User Stories

1	As a user I should be able to register with the application so that I can login and use the functionalities of the application.
2	As a user, I should be able to login with my user name and password in order to access the functionalities of the application.
3	As a user, I should be able to login with my Gmail account in order to access the functionalities of the application.(optional requirement)
4	As a user I should be able to search resources to view their details
5	As a user, I should be able to save resources to a wishlist/favourite so that I can access them later
6	As a user, I should be able to access items saved to my wishlist/favourite

Notes:

- The application should be based on microservices architecture
- API Gateway pattern should be implemented using Spring Cloud Gateway
- Services should register themselves with Eureka Service Discovery server.
- All layers of microservices should be covered with automated unit and integration tests
- All microservice endpoints should have API documentation

## High Level Architecture Diagram

