

IT414 - Software Project Management
Final Project Report



YOUR ONE-STOP DAY-TO-DAY GUIDE

“Fitness begins with what you eat!”

Group Number: 23

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GitHub Repository: <https://github.com/DhanviShah/Fork-Pencil>

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1) Project team details and roles of team members.

Group IDs	Group Members	Roles
201801165	Divya Vazirani	Leader
201801167	Dhanvi Shah	Developer
201801168	Param Modi	Developer

2) Project background

a) Purpose of project

Considering the scenario in this modern world where people tend to avoid their health by not paying enough attention to what they are eating, what are the nutritional values of that food, how that food affects their health, etc. the development of such websites which can provide relevant information is the necessity nowadays. Our motivation behind developing this website is to provide a one-stop day-to-day guide that can be useful to search for new recipes, ingredients needed and check nutritional values to keep a person's daily routine tasty and healthy. During the time of pandemic when hotels were closed and many people were away from their homes, people used to search for new recipes online. For the same purpose, the provision of such a website that could provide various food recipes, nutritional information, etc. can serve as a great help. Rightly said, "Fitness begins with what you eat!"

b) Scope of project

Our project aims to provide a one-stop solution in the form of a website named "Fork & Pencil" to all the users where they can check for the nutritional values of various food items such as energy, carbs, protein, fat, etc. and search for the recipes with the ingredients of that particular food item. Along with that our website provides users with the facility of adding the recipes of the particular food item if they want. These added food recipes will then be shown to the other users using this website on the next search for that particular food item. So, our website would serve as a common platform from where users can get ideas as well as share their ideas. As the users are not forced to reveal their identity, this website would serve as a better interactive platform and could lead to better improvement of the content on the website.

c) Relevant background information (if available, needed to understand the project)

The Nutritional Information of any food item provides detailed information about a food's nutrient content, such as the amount of fat, sugar, sodium, and fiber it contains. This nutritional information helps to maintain better food eating habits and monitor a balanced energy level. Junk foods are more palatable and hence, they become favorite staples for the younger generation specifically, because of which it becomes of utmost necessity to check their nutritional outputs.

3) Perspectives

a) Who will use the system?

All the people who want to maintain their diet and learn the new and healthy recipes of various food items with their nutritional values will use the system. Chefs, food bloggers, and the adult generation can be the major users.

b) Who can provide input about the system?

Users using this website will be able to provide input about the system.

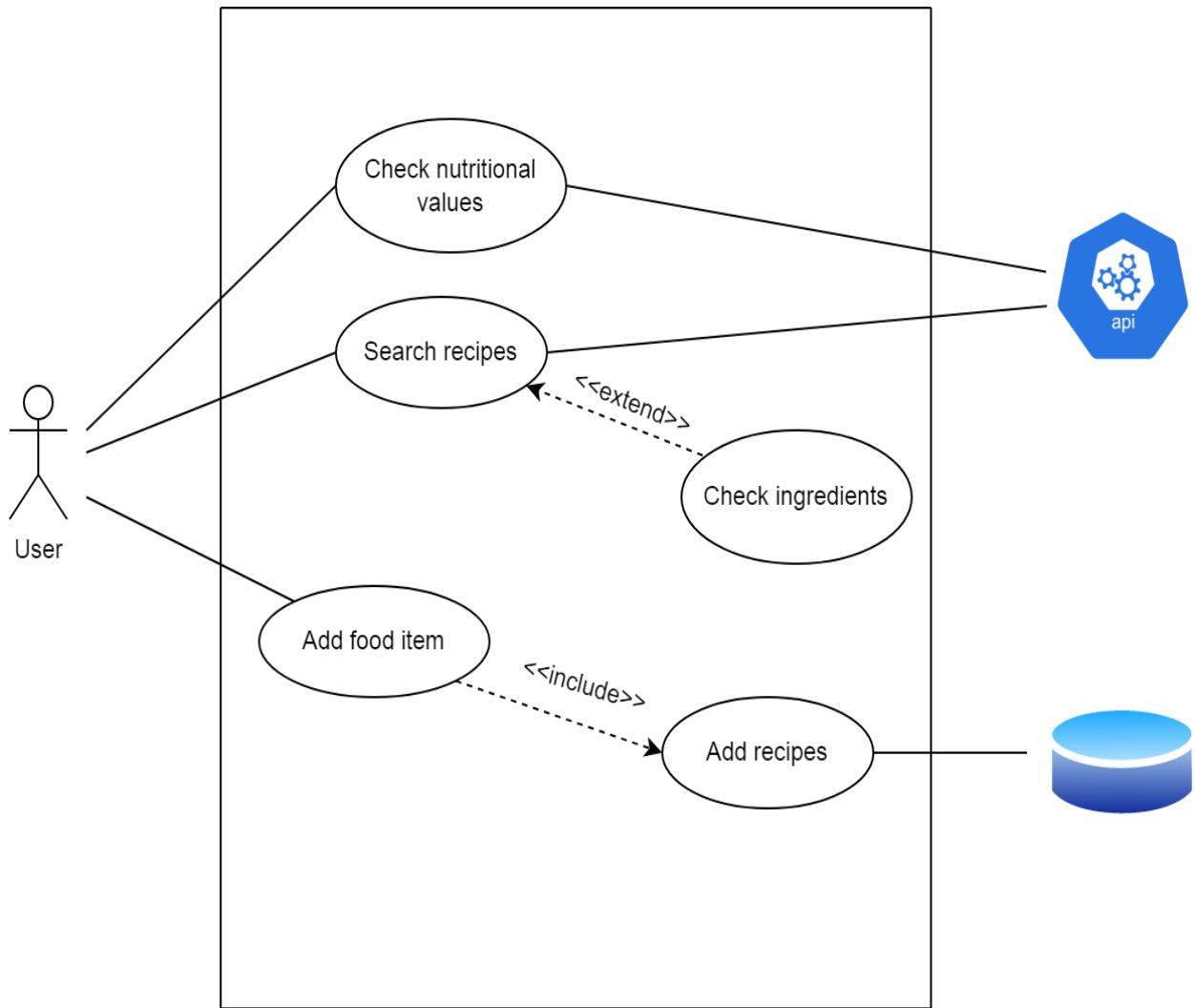
4) Project Objectives

a) Business rules for your system

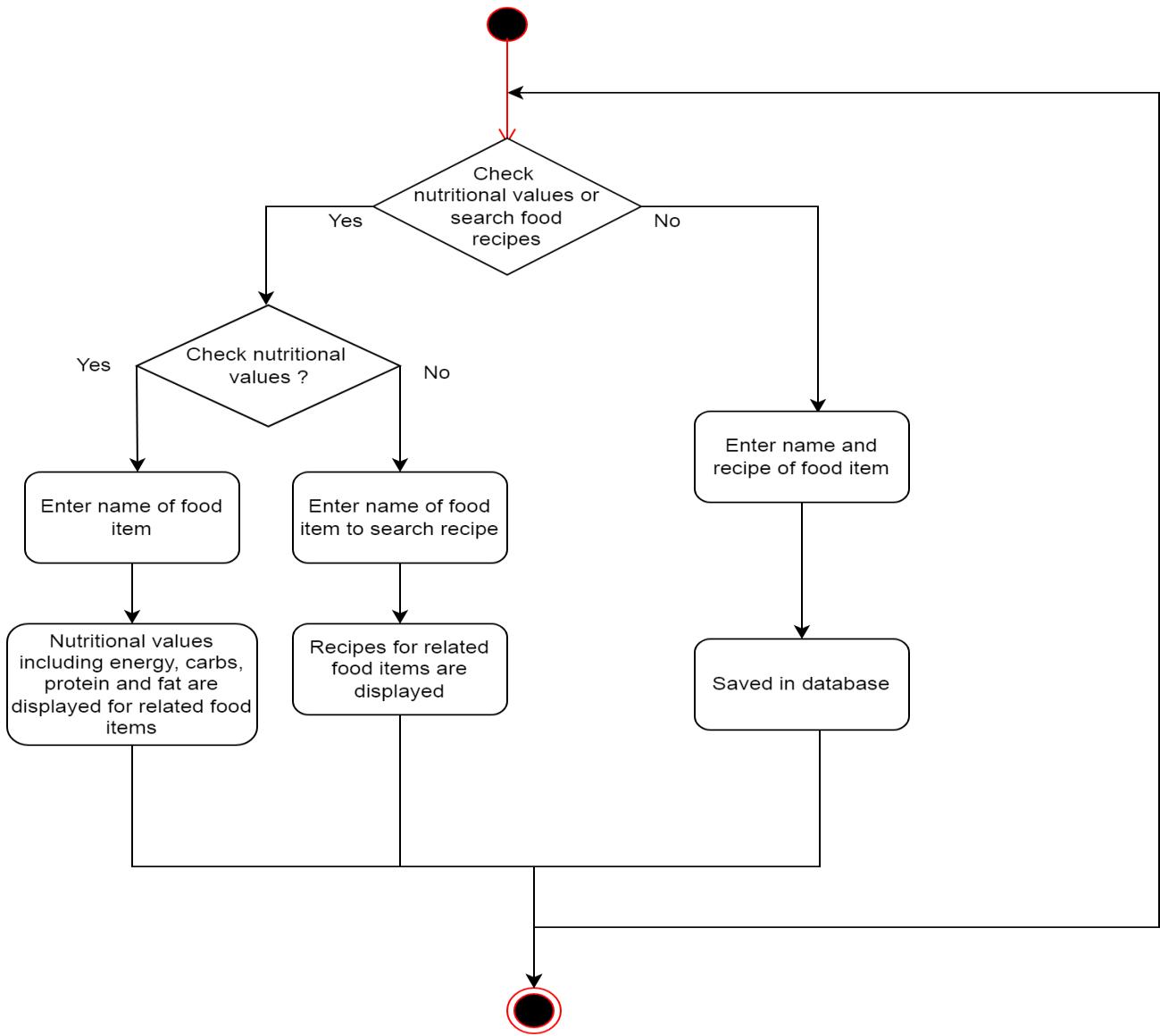
- The software should contain information about nutritional values from verified sources only.
- The boundaries of the software should be clearly defined and the users should be allowed to upload the content with controlled access.

- b) System information and/or diagrams(mainly UML Use Case, class, and interaction models)

Use case diagram:



Activity diagram:



c) Assumptions and dependencies, including time and effort estimates, details on tasks done by specific team members.

Estimations are done on the basis of various tasks of various phases :

Phases And Sr. No.	Tasks done	Dependencies	Estimated time (hrs)	Done by
Planning				
1.	Proper project plans are documented describing how the implementation will be done, what all technologies we can use, etc.	-	30	Divya, Dhanvi, Param
2.	Identifying, prioritizing, and assigning the tasks to build the entire software project	-	12	Divya
Requirement Gathering & Analysis				
3.	Created an abstract for an entire project, that includes the objective, motivation, and scope for the project.	-	12	Dhanvi
4.	Gathered the user requirements needed for the development of the project.	Dependent on task 3 - Creating an abstract	60	Param
5.	Had a brainstorm and decided on the features needed by the users of the software.	Dependent on task 1 - Documenting project plan and task 3 - Creating an abstract	20	Dhanvi, Divya, Param

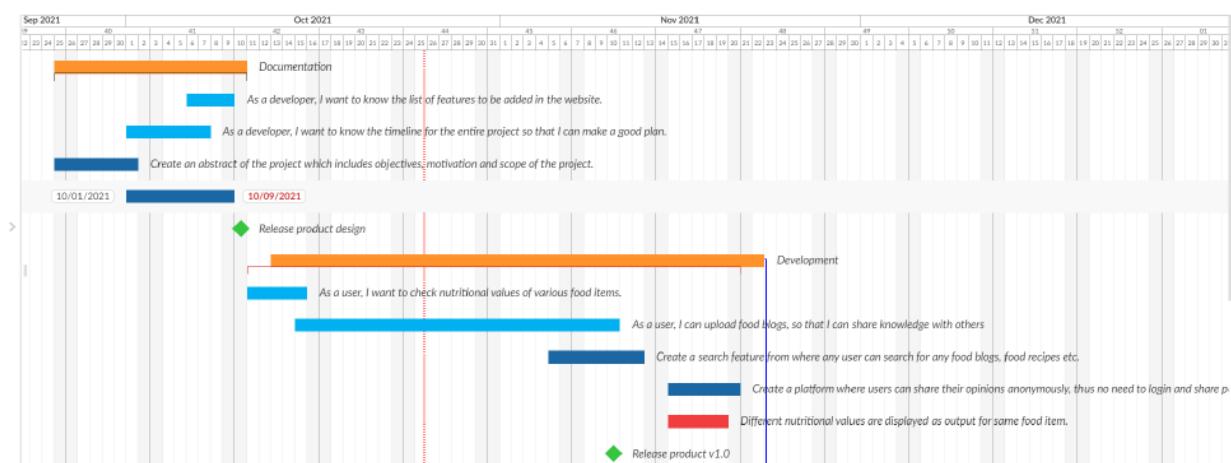
6.	Create a tentative timeline for the completion of the project.	Dependent on task 3 - Creating an abstract	3	Dhanvi, Divya, Param
7.	Gather information about the resources needed to implement the project and its availability.	-	8	Param
Designing				
8.	Created a design document taking into consideration the easy user experience and smooth user interface. Creating UI/UX prototyping.	Dependent on task 1 - Documenting a project plan	20	Dhanvi
Development				
9.	Created a layout of the food website in the initial phase according to the design document prepared.	Dependent on task 8 - Creating UI/UX prototyping	24	Divya
10.	Created a search feature from where any user can search for any recipe, check the nutritional values, etc.	Dependent on task 5 - Deciding the features	30	Param
11.	Create a Contact Us which could serve as a reach-out point for the users.	Dependent on task 8 - Creating UI/UX prototyping	10	Divya
12.	Add the nutritional values API and Recipe Search API to implement features	Dependent on task 5 - Deciding the features	24	Dhanvi

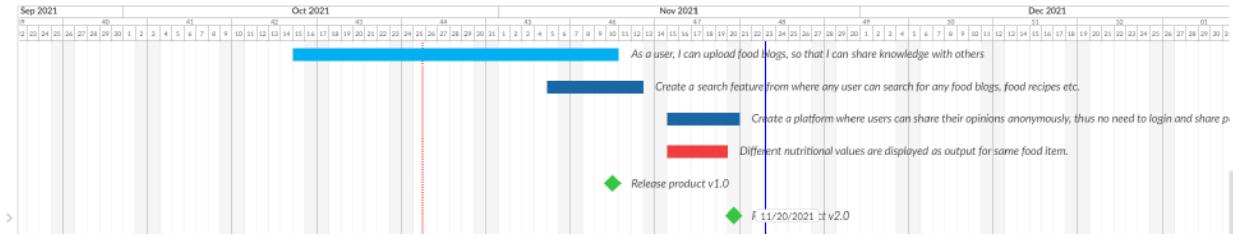
13.	Create a feature where users can upload recipes of food items for others to refer them.	Dependent on task 5 - Deciding the features	72	Param
14.	Create a Navigation bar to move to and fro between various pages of the website.	Dependent on task 8 - Creating UI/UX prototyping	20	Param

Estimations are done on the basis of various phases :

Phase	Activities	Estimated duration
Planning	Requirements Gathering	7th - 13th October
	Tasks and Milestones	14th - 20th October
Designing	Design document	21st October - 3rd November
Development	Frontend - Feature Implementation	10th - 20th November
	Frontend Features & Pages Integration	21st - 30th November
	Backend Integration	1st - 5th December

d) Project plan based on 4(c) using Gantt charts





e) Design and implementation constraints

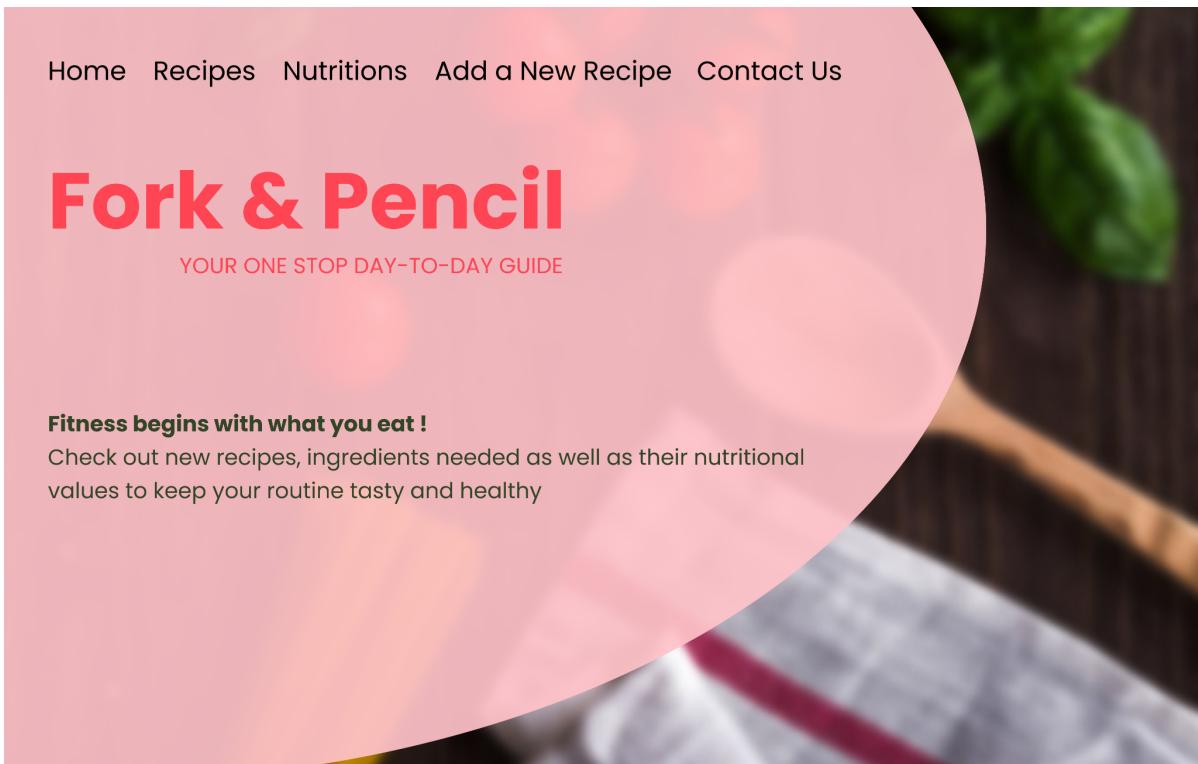
- We could have implemented a login system to our website for entering new recipe for a food item which can restrict the unwanted users from uploading the unwanted data to the website, but due to the time restrictions we were not able to make it
- For this project, due to budget restrictions, currently, we have used an API that will allow a maximum of 10,000 searches which were available free of cost. But we can use a more stable paid version of API which can allow unlimited searches.
- If the time permitted, we could have added features like sharing and commenting on recipes on our website for users to share their opinions along with the nutrition calculator to calculate total nutrition intake within a day or a week.

5) Risks associated with your project and its mitigation strategies

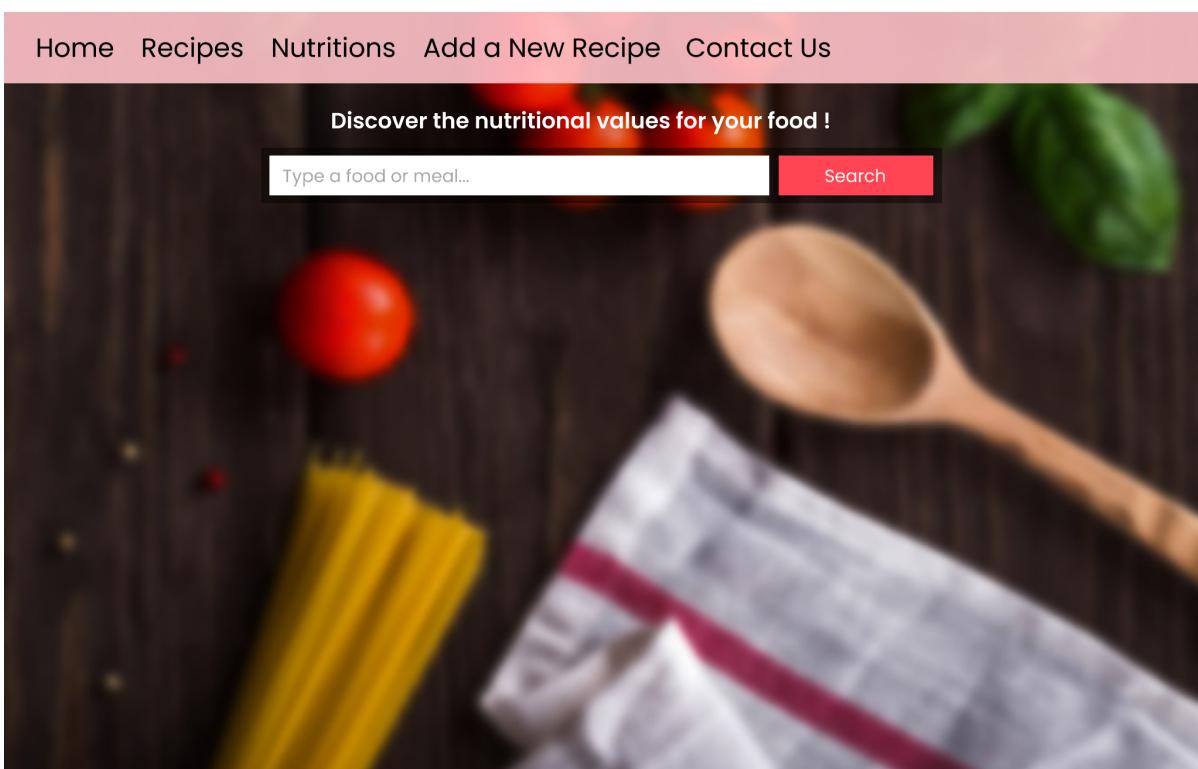
Risk Associated	Its Mitigation Strategies
1) API that we have used might fail	We can use the better and more stable API which is used on a large scale and widely used which has fewer chances of getting failed and is more secure.
2) If there is heavy traffic of users on the website, the website may crash	We must keep the website software updated. Along with that make continual backups of the website which makes it easier to get things up and the website running again in no time if we are using the proper web hosting service.
3) As users are allowed to add their own recipes for various food items, users might add unwanted data leading to unwanted results for other users.	We can create a login system for our website which will filter out unwanted people who are posting unwanted details as only genuine people will share their details and post the information.

6) UI/UX design of the complete system

Home Page:



Nutritional Values:



Display Nutritional Values:

Home Recipes Nutritions Add a New Recipe Contact Us

Discover the nutritional values for your food !

Type a food or meal...

Search

Pizza
Generic foods

Energy : 268.0kcal
Carbs : 29.0g
Protien : 10.4g
Fat : 12.3g

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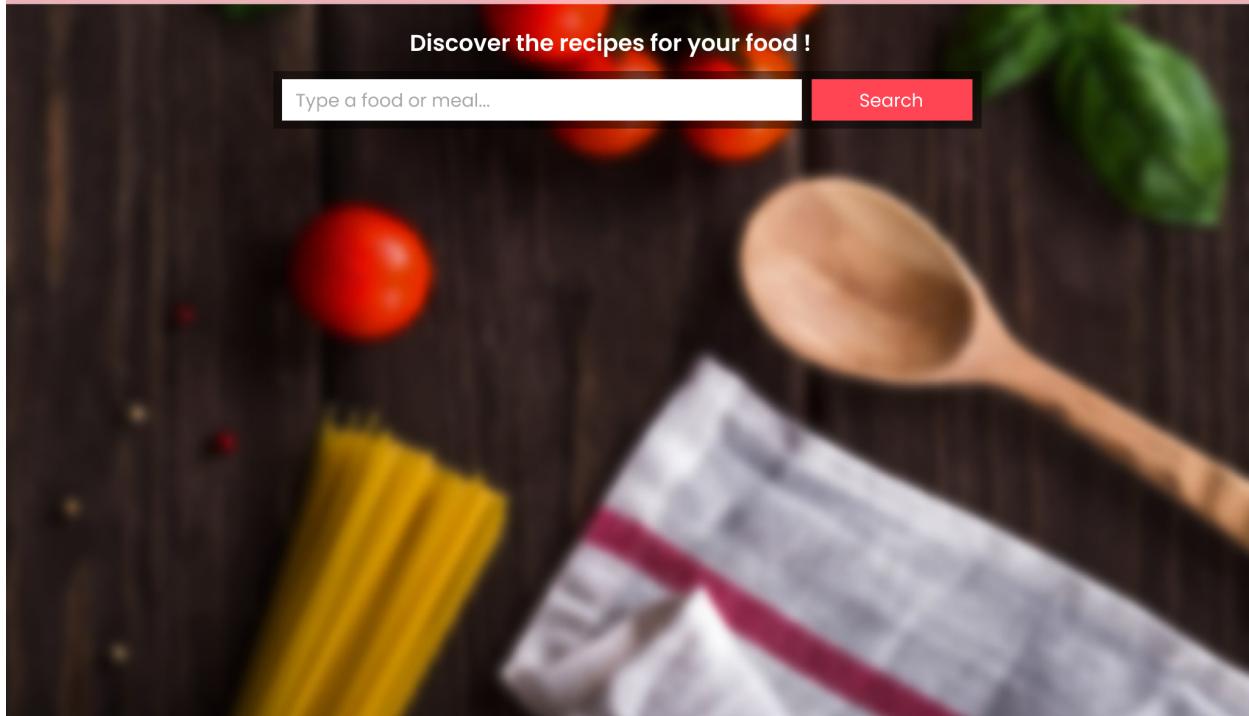
Recipes:

Home Recipes Nutritions Add a New Recipe Contact Us

Discover the recipes for your food !

Type a food or meal...

Search



Display Recipes:

Home Recipes Nutritions Add a New Recipe Contact Us

Discover the recipes for your food !

Type a food or meal...

Search

Pizza

Generic foods

Ingredients : Pizza Dough, Cheese, Capsicum, Oregano, Chiliflex

Pizza

Generic foods

Ingredients : Pizza Dough, Cheese, Capsicum, Oregano, Chiliflex

Pizza

Generic foods

Ingredients : Pizza Dough, Cheese, Capsicum, Oregano, Chiliflex

Add a New Recipe:

Home Recipes Nutritions Add a New Recipe Contact Us

Add a new Recipe

Recipe Name :

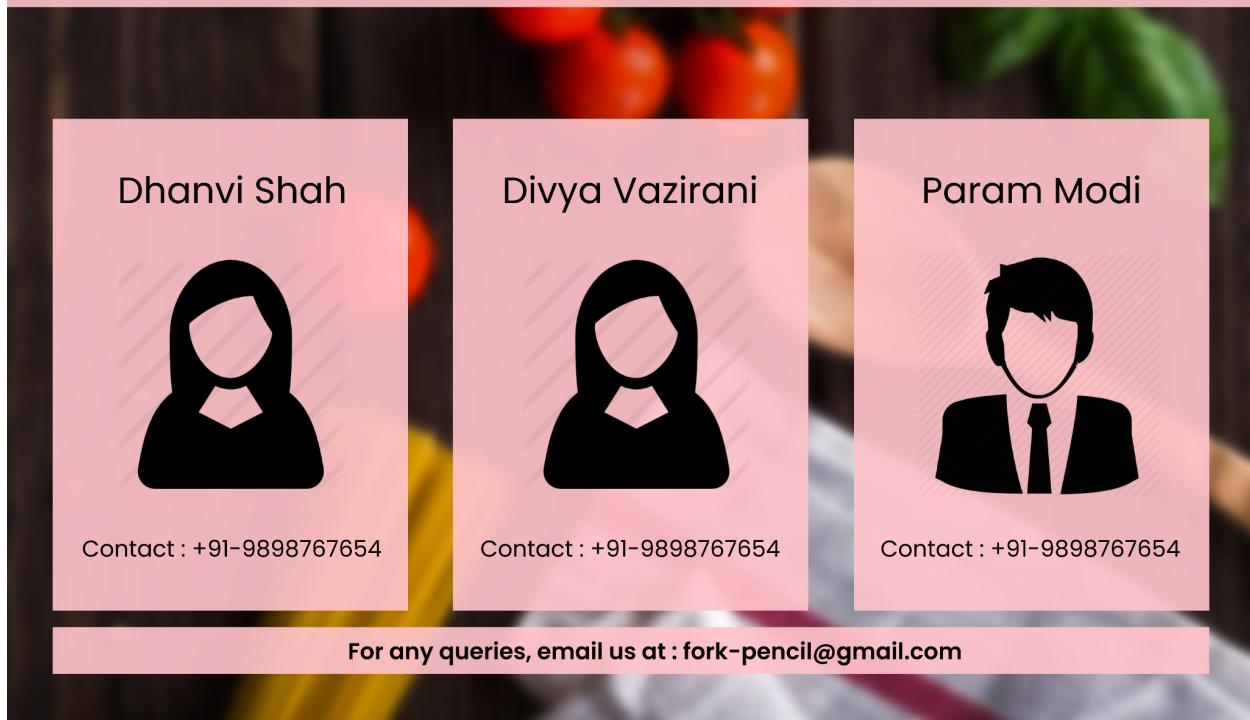
Cuisine Type :

Recipe :

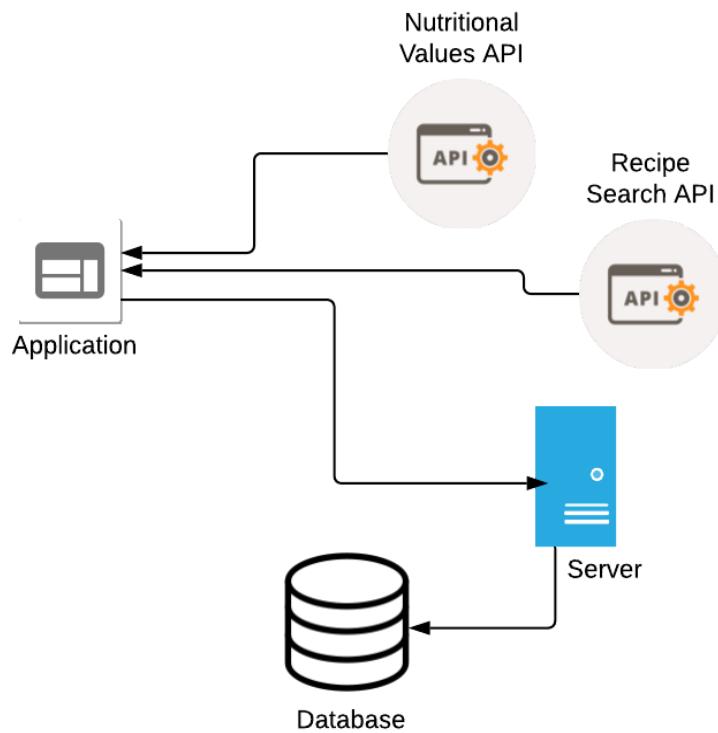
Add Recipe

Contact Us:

Home Recipes Nutritions Add a New Recipe Contact Us



7) System architecture model (or Implementation model)



8) Implementation Technologies including front-end and back-end decisions

Front-End Technologies:

React Framework, CSS, JavaScript

Back-End Technologies:

Javascript, Nutritional Values API (Edamam's API), Recipe Search API (Edamam's API)

9) Contribution of Team Members:

Group Members	Contribution in Implementation	Contribution in Documentation
Dhanvi Shah	<ul style="list-style-type: none"> • Responsible for creating and maintaining Github repository • Created and Designed a Contact Us page for the website. • Included an API to fetch nutritional values for any food. • Included an API to fetch the recipes for any food. • Created a Navigation bar, through which users can navigate between pages. 	<ul style="list-style-type: none"> • Created the project background <ul style="list-style-type: none"> ◦ Project Purpose ◦ Project Scope • Created the perspectives for the project • Identified the risks associated and their mitigation strategies • UI/UX prototyping • Developed System Architecture Model • Identified future enhancements possible in the system • Made presentation
Divya Vazirani	<ul style="list-style-type: none"> • Created and Designed a Home page for the Website. • Created and Designed a Nutritions Search page, where users can enter the name of the food, and they get their nutritional values with proper designing. • Implemented a routing feature for the project, to enhance the response time for all the pages requested by the users. 	<ul style="list-style-type: none"> • Created Use Case diagram, Activity diagram • Identified dependencies between the tasks along with the time and effort estimates and tasks are done by specific team members • Identified future enhancements possible in the system • Identified Design Constraints • Made presentation

Param Modi	<ul style="list-style-type: none"> • Created and Designed an “Add a New Recipe” page where users can write their recipes in their own words and submit them. • Created a server that can interact with the website, store the recipes added by the users and allow the GET and POST requests for the requested data. • Implemented a feature through which the website can interact with the server to upload the recipes entered by the users. • Created and Designed a Recipes Search page, where users can enter the name of the food, and they get their recipes with proper design. • Implemented Page and Device Responsiveness for all the pages, so the website can also be accessed across all the devices and web browsers. • Implemented Accessibility for all the pages for people with some disability. 	<ul style="list-style-type: none"> • Identified Risks involved and their mitigation strategies • Deciding front-end and back-end decisions • Identified Design Constraints. • Created a Gantt Chart to employ the dependencies between the various backlogs, tasks, etc., • Made presentation
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10) Future enhancements to the system.

1. We can implement a login system to our website for entering a new recipe for a food item which can restrict the unwanted users from uploading the unwanted data to the website.
2. For this project, currently, we have used an API that will allow a maximum of 10,000 searches. For future development, we can use a more stable paid version of API which can allow unlimited searches.
3. We can add features like sharing and commenting on recipes on our website for users to share their opinions.
4. We can add a feature that will output the total nutritional values of searches done in one day or one week just like the nutritional calculator.