

# Final Demo Presentation

*Yes Chef!*

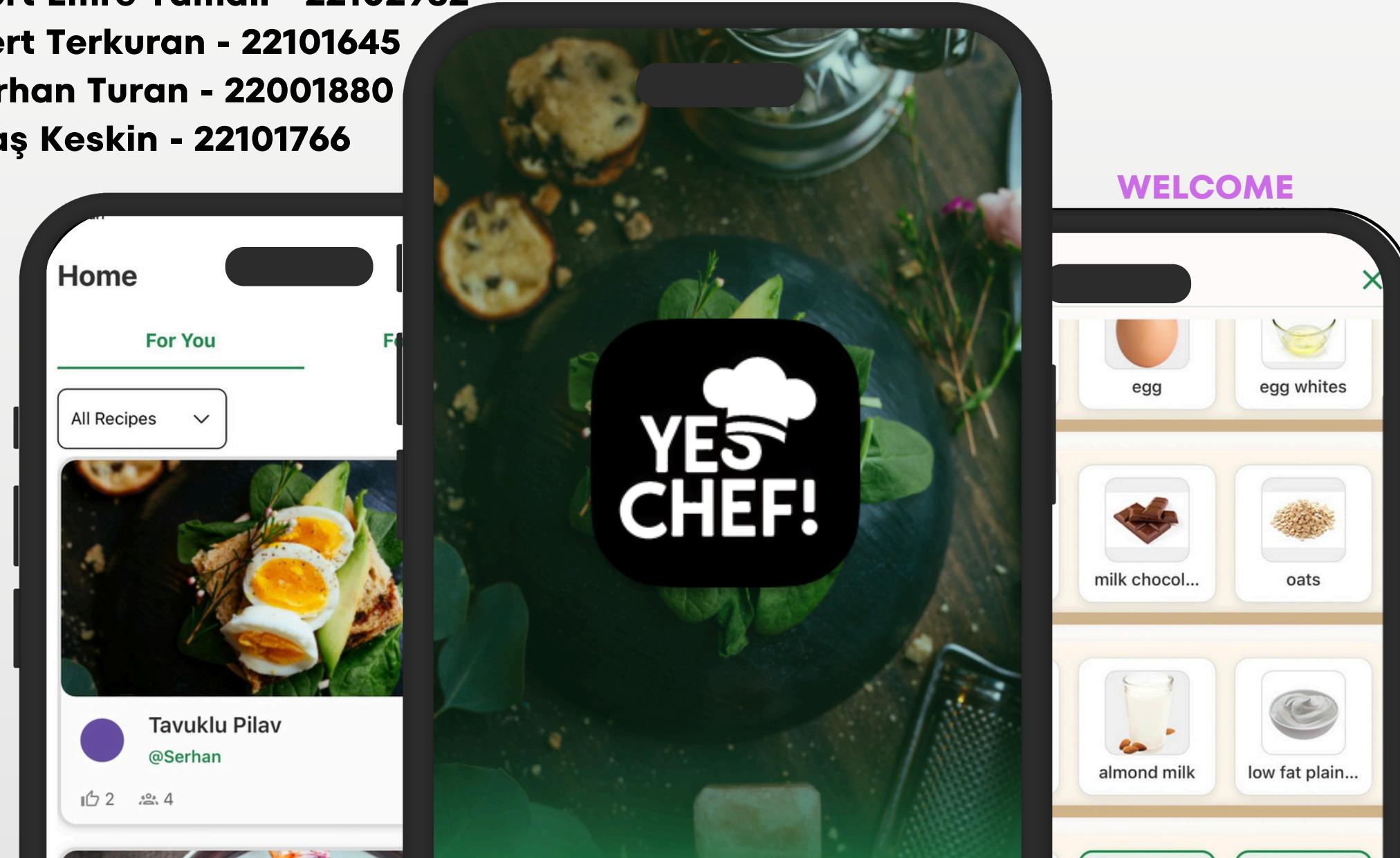
İsmail Barış Sunar - 22003479

Mert Emre Yamalı - 22102932

Mert Terkuran - 22101645

Serhan Turan - 22001880

Ulaş Keskin - 22101766





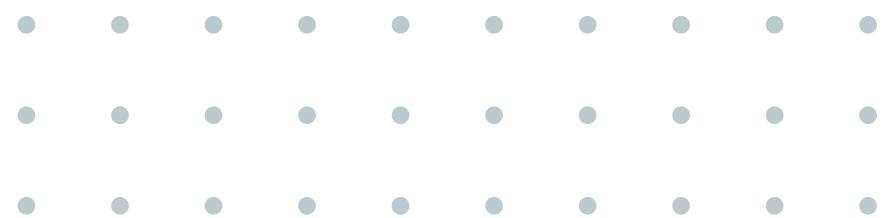
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02. OUR TEAM

03. CURRENT STATUS & PROGRESS

04. SYSTEM ARCHITECTURE &  
DESIGN CHOICES

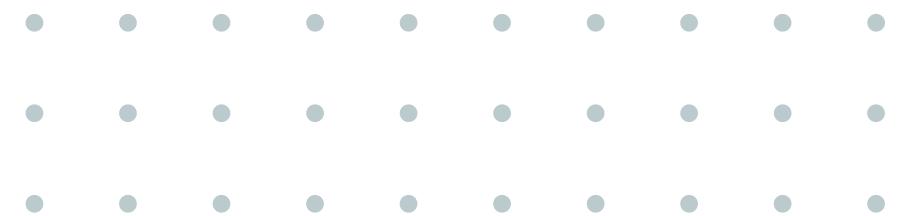
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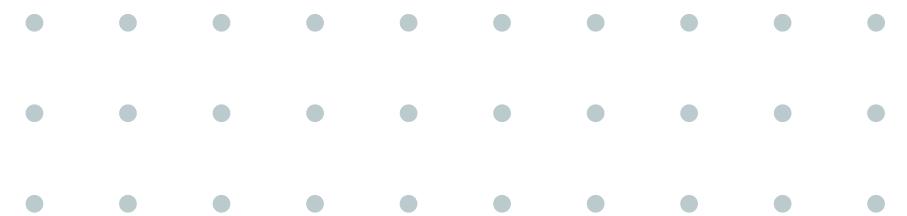


01.

# PROJECT OVERVIEW

## PROBLEM WITH HOME COOKING

The tedious task of planning meals around your daily schedule, managing ingredients, and the overall dull process of cooking lead people to resort to unhealthy eating habits.



# ONLINE FOOD DELIVERY USERS IN TURKEY[1]

## PEOPLE

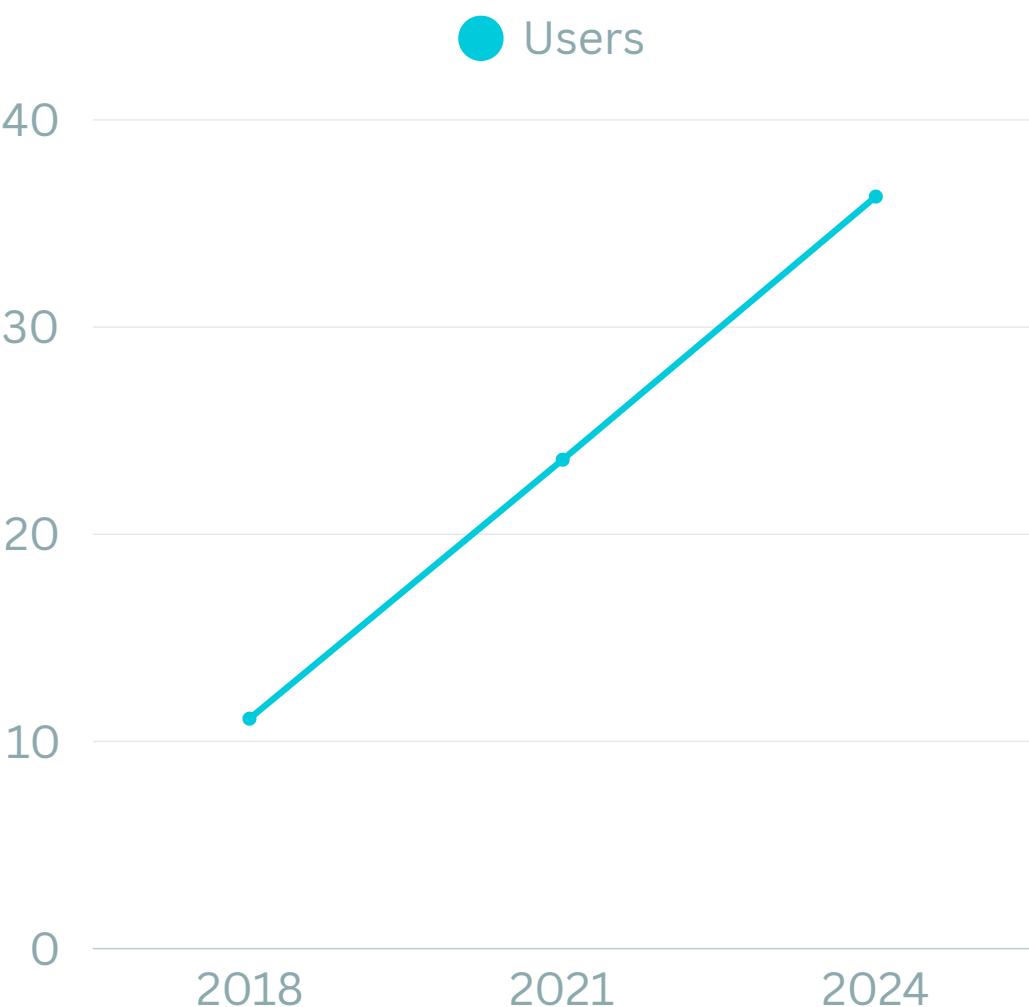
Online delivery app usage has maintained a linear growth in terms of its user size.

## SALES

Revenue has also seen a linear increase over the years going from only 500M\$ in 2018 all the way up to 1.69B\$ in 2024.

## MARKET

This huge revenue is generated only by a handful of companies exploiting the new busy standards of life, not leaving enough time for home cooking.



**36.3M**  
People use  
online food  
delivery apps

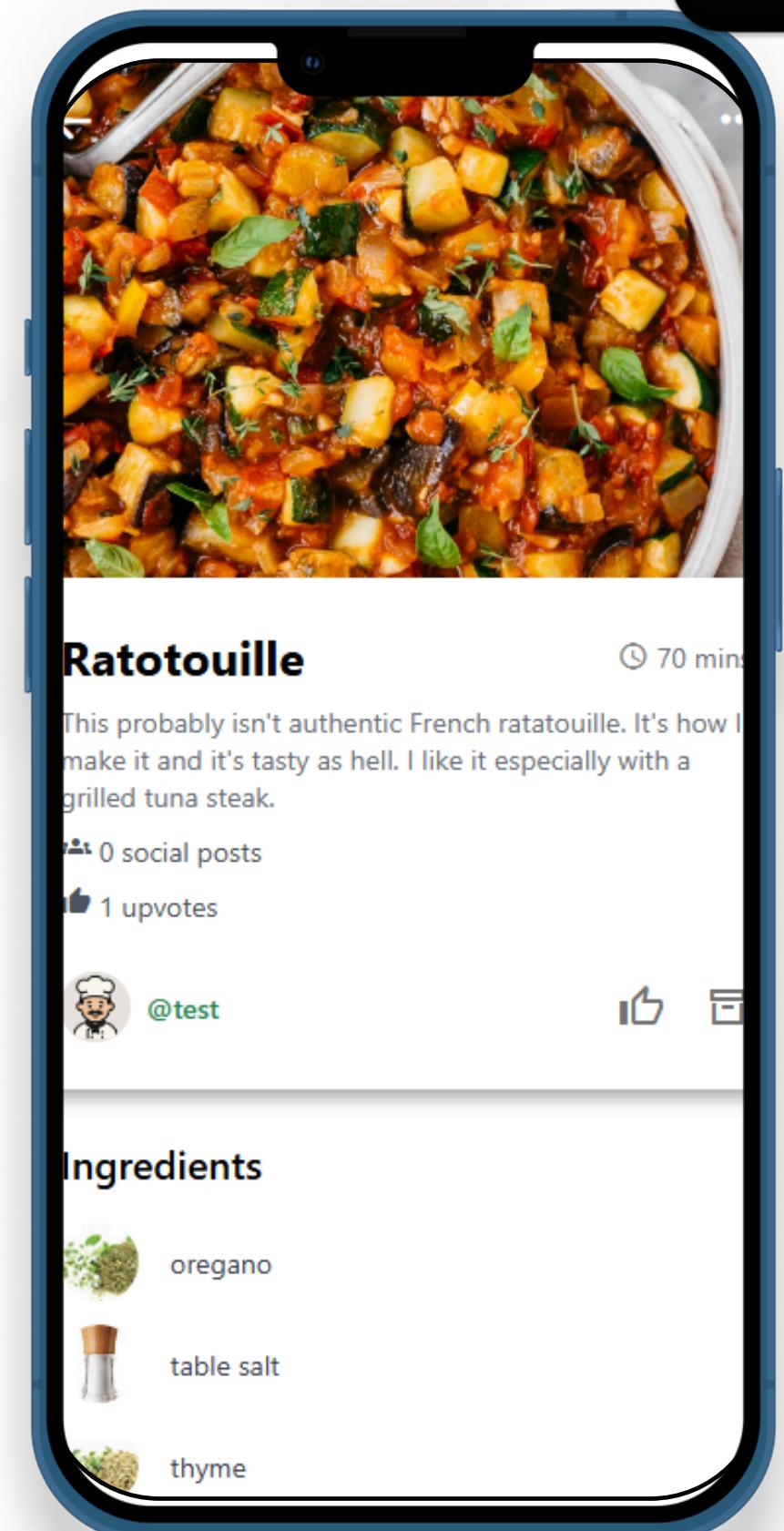
**1.69B\$**  
Revenue  
generated by  
these apps

**62%**  
Of all people  
above the age of  
15



# Yes Chef!

Yes Chef! provides a new, more enjoyable alternative to the standardized way of home cooking. With a personalized recommendation algorithm, many social features, an interactive and a rewarding way of cooking, and a gamified engine for more immersive recipe creation, Yes Chef! aims to bring those who despise the standard ways of meal preparation to the kitchen.





# YES CHEF!



## Reduces Food Waste

By giving appropriate recommendations with available ingredients.

## Promotes Healthy Eating

By having easy to make home meals in its' library.

## Promotes Socializing

By providing a platform that allows users to follow each other, share, and rate recipes.

## Makes Home Cooking Fun

By having an achievement/badge system, an interactive cooking experience and a gamified engine.

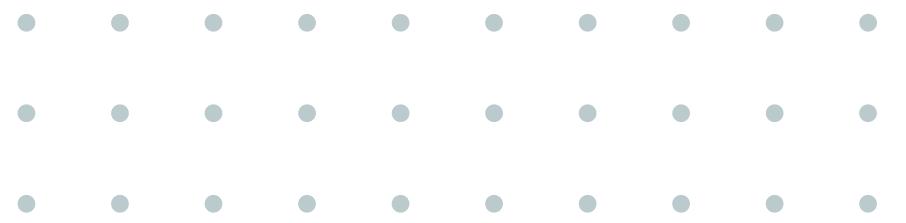
02.

## THE YES CHEF! TEAM



## UĞUR DOĞRUSÖZ SUPERVISOR

Prof. Dr. Uğur Doğrusöz is the supervisor of the project Yes Chef! When we first came to his office and pitched our ideas, he gave valuable feedback and accepted to be our supervisor.

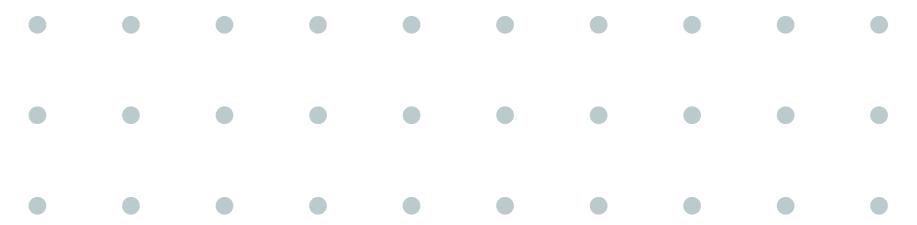




# MERT TERKURAN

## IDEA FOUNDER

Mert Terkuran is the person who came up with the idea of Yes Chef! While brain storming for an idea, he thought of a creative solution to one of his problems. Along with creating the entire back-bone of the project, he is the main developer of our game engine.

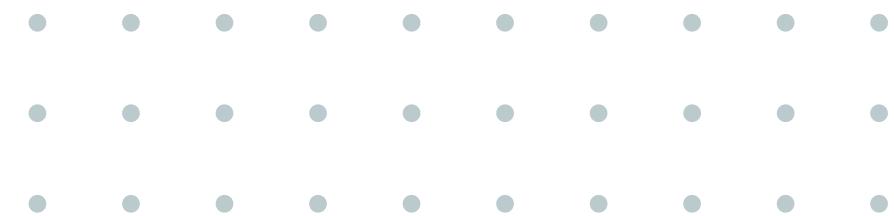




# ISMAIL BARIŞ SUNAR

**MAIN DESIGNER / GAME  
ENGINE CO-DEVELOPER**

Barış Sunar became the artistic vision in our project, he not only designed the general outline of our UI in Figma, he helped bring most of it into code. He then played a big part in both designing and coding the game engine of the project.

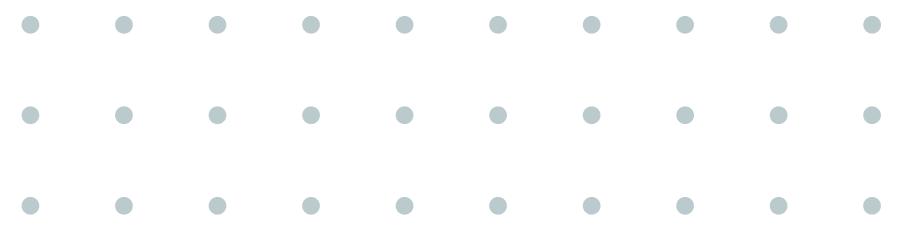




# SERHAN TURAN

PRODUCT MANAGER /  
BACKEND DEVELOPER

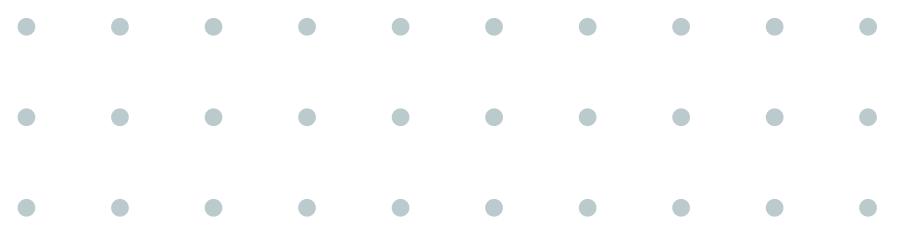
Since the beginning of the project, Serhan Turan took up the role to be the manager of the project and distribute the workload evenly and fairly to each member. He also played a big role in backend development.





## ULAŞ KESKİN FRONTEND DEVELOPER

Ulaş Keskin played the role of the frontend developer in our project. He took the designs that Barış created and implemented them, sometimes making them even better in the process. He also took care of miscellaneous stuff such as advertising, trailer, merch etc.

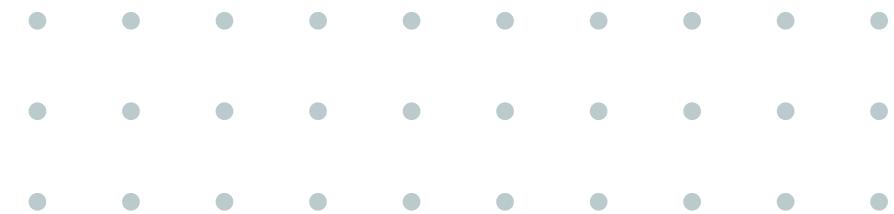




# MERT EMRE YAMALI

## FULL STACK DEVELOPER

Mert Emre Yamalı took the role of the full stack developer, tackling every technical problem, from frontend to backend, from cloud hosting to database management, from version control to modular code. He created healthy environments in which every team member could easily participate in the project.

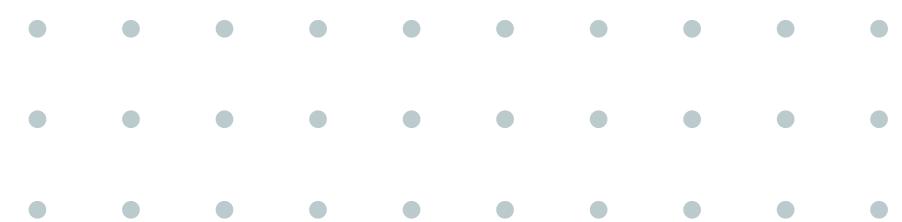




# MUHAMMED NACI DALKIRAN

## INNOVATION EXPERT

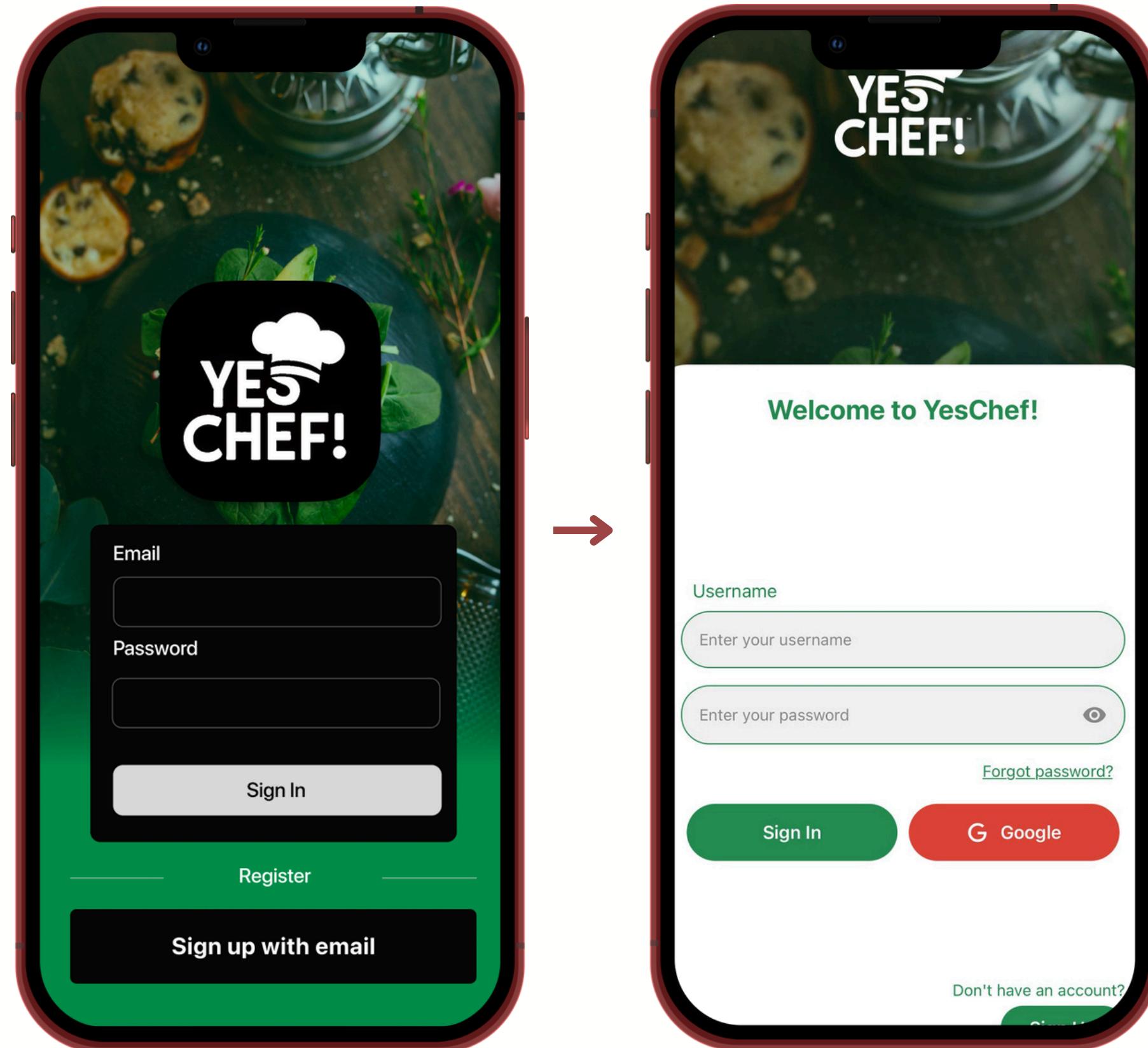
Muhammed Naci Dalkıran, from the first point where he accepted to be our innovation expert, has contributed massively to the last stage of the project. As a past Bilkent CS graduate, he shared his wisdoms and his past failures with us so we would not do the same. He also helped us decide the scope of our project



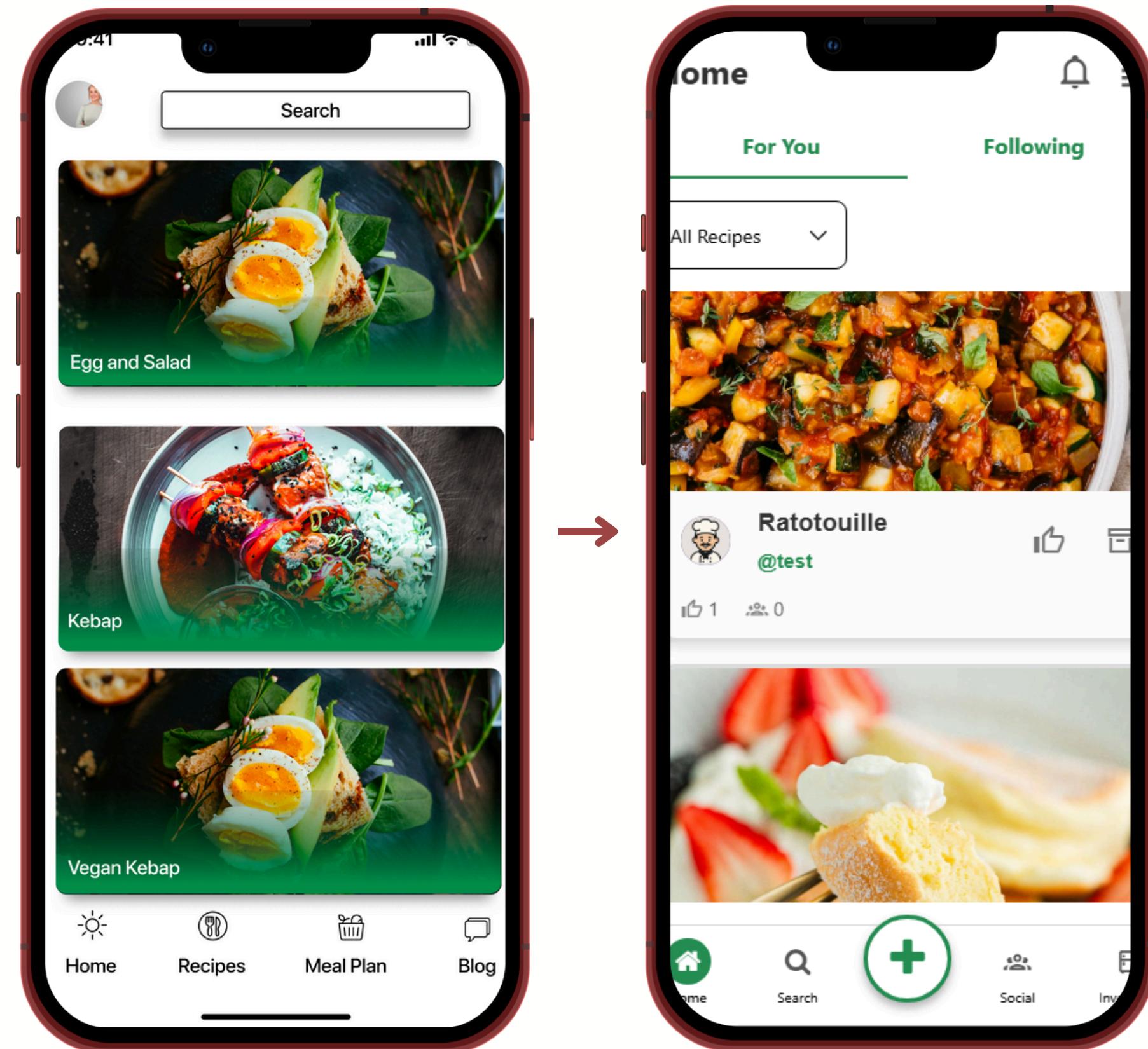
03.

## CURRENT STATUS & PROGRESS

# Authentication Screens



# Home Page



# Recipe Info Page



The image shows two smartphones side-by-side, each displaying a recipe card. A red arrow points from the Ramen card to the Ratatouille card, indicating a transition or comparison between the two recipes.

**Ramen**  
Lunch / 15 mins      Upvotes: 151

100 k Energy	15 g Protein	58 g Carbs	20 g Fat
--------------	--------------	------------	----------

Ingredients 2 serves

Chicken breasts	250 g
Unsalted butter	1 tbsp
Sesame or vegetable oil	2 tsp
Fresh ginger	2 tsp
Large eggs	100 g

**Start cooking**

**Ratatouille**      70 min

This probably isn't authentic French ratatouille. It's how I make it and it's tasty as hell. I like it especially with a grilled tuna steak.

0 social posts      1 upvotes

@test

**Ingredients**

	oregano
	table salt
	thyme

# Recipe Instruction Page



The image shows two smartphones side-by-side, illustrating a recipe instruction page from the YES CHEF! app.

**Left Phone Screen:**

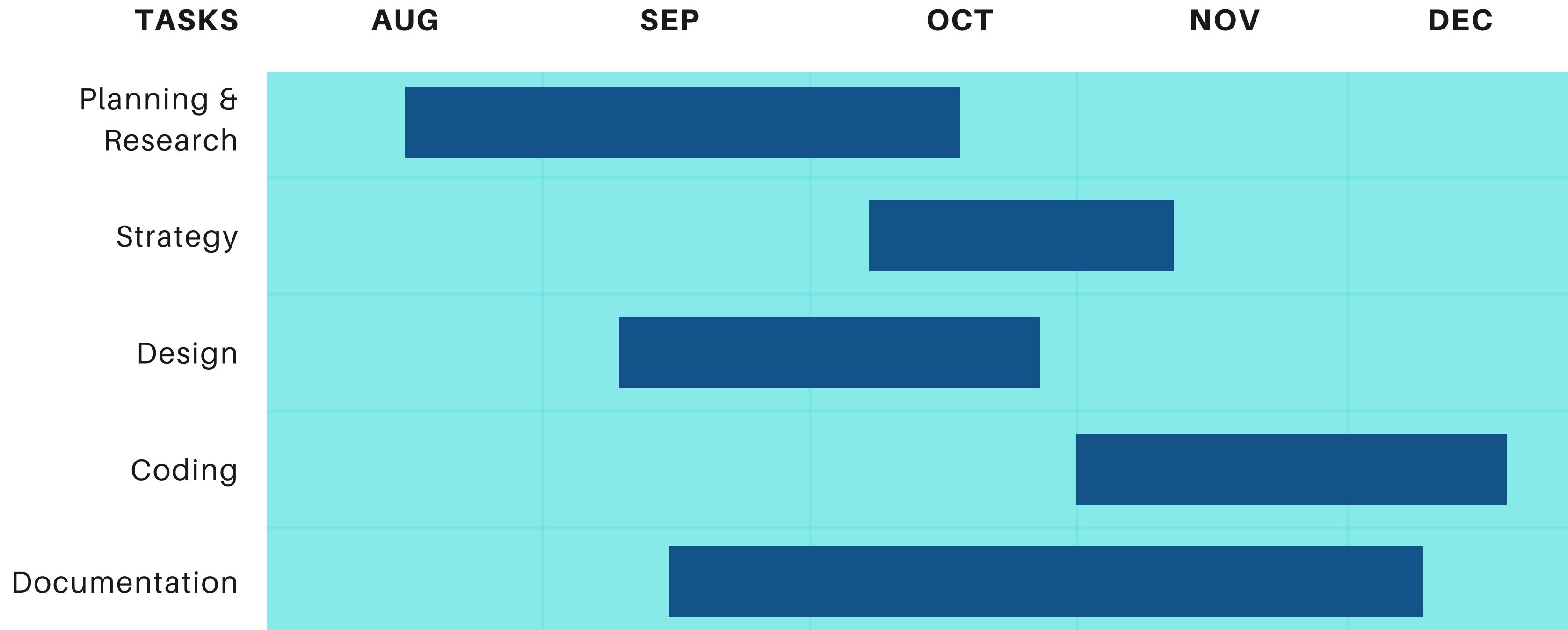
- Background:** A video thumbnail showing a hand stirring ramen in a pot.
- Video Controls:** A play/pause button and a timer showing 3:21.
- Section Header:** Step 1
- Ingredients:**
  - Bacon: 50 gr
  - Soy Sauce: 200 ml
  - ETA: 5 min
- Text:** this is where the instructions go
- Buttons:** A green "Yes Chef!" button at the bottom.

**Right Phone Screen:**

- Background:** A video thumbnail showing a pan filled with Ratatouille.
- Section Header:** Step 5 / 10
- Section Title:** Ratatouille
- Ingredients:**
  - onion
  - tomato puree
- Image:** A close-up photo of a pan containing Ratatouille.
- Text:** Open the can of tomato puree and add a
- Bottom Navigation:** Home, Search, a central green circle with a plus sign, Social, and In.

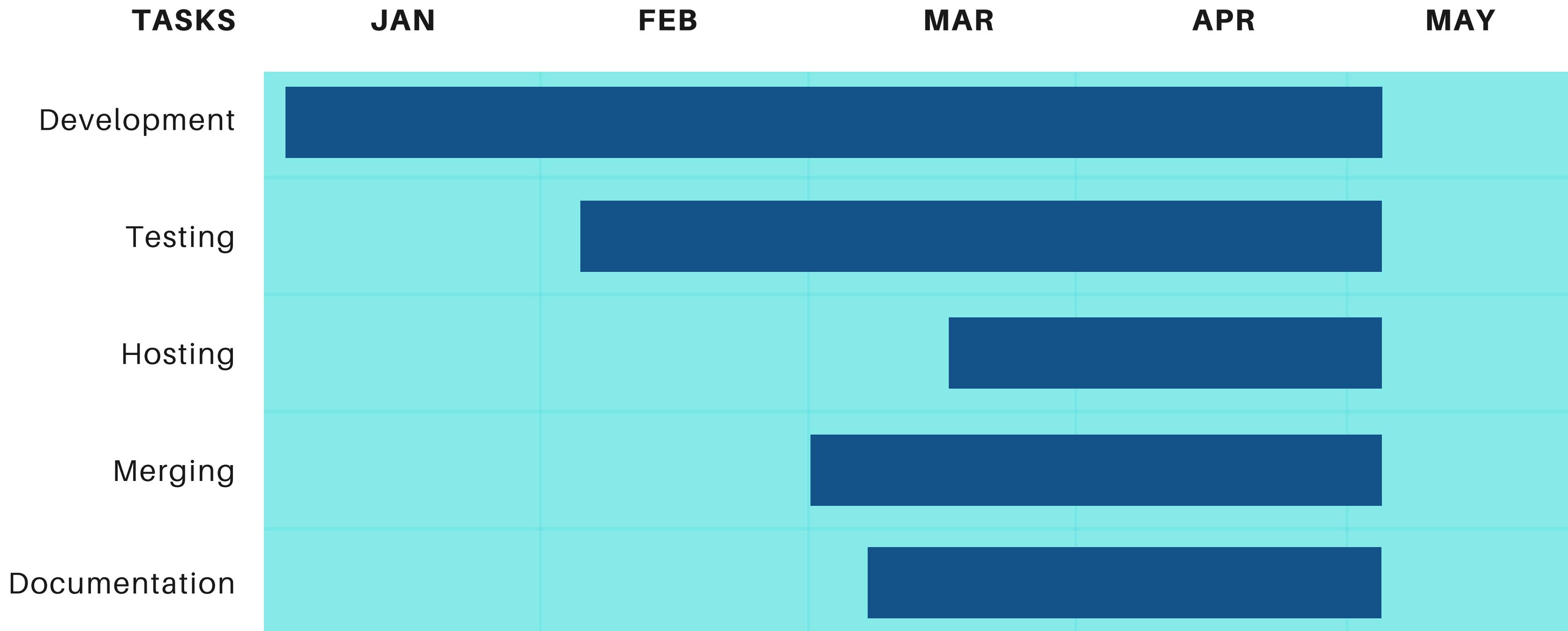


# Gannt Chart For Development of Yes Chef (1<sup>st</sup> Semester)!





# Gannt Chart For Development of Yes Chef (2<sup>nd</sup> Semester)!

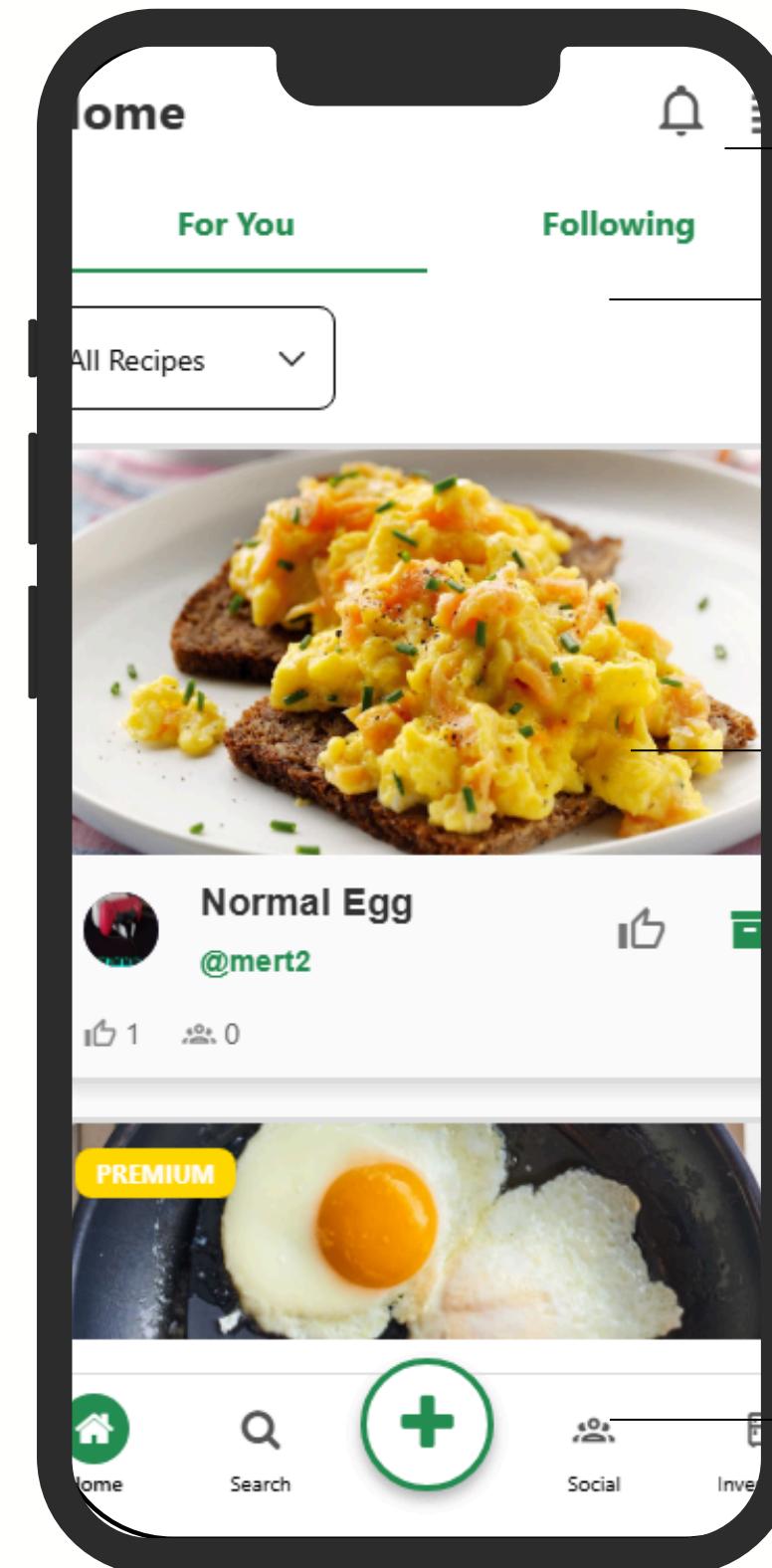




# Implemented Features

## Upgraded Home Page

- Easier Navigation
- More appealing Recipe Display
- Notification and Sidebar



● Notifications and Sidebar

● Recipe Filters

● New Recipe Display

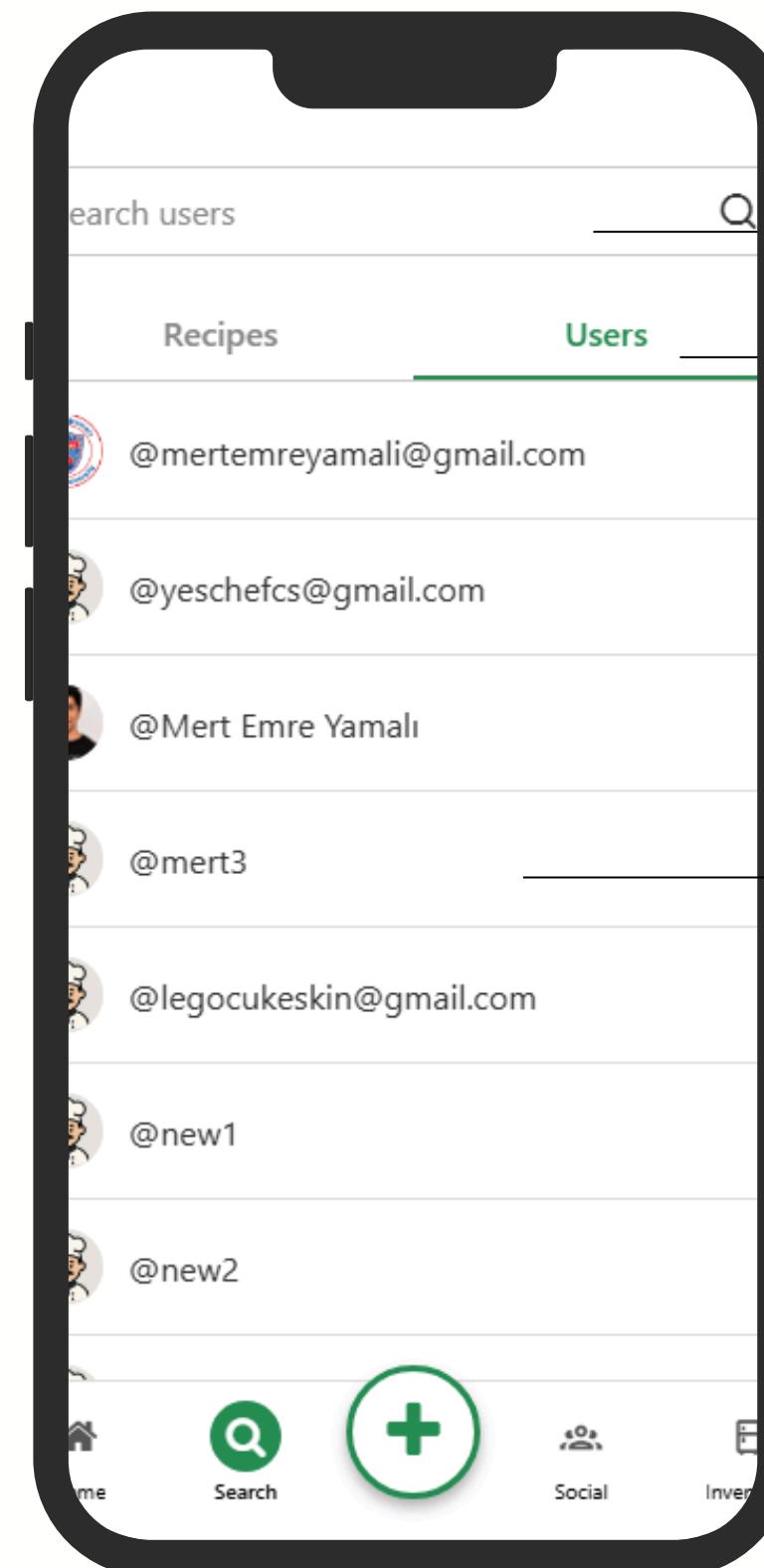
● Upgraded Navigation Bar



# Implemented Features

## New Search Page

- Easier Navigation
- Real Time Fetch
- Faster Response Time



● Real Time Updates with Queries

● Easy Navigation

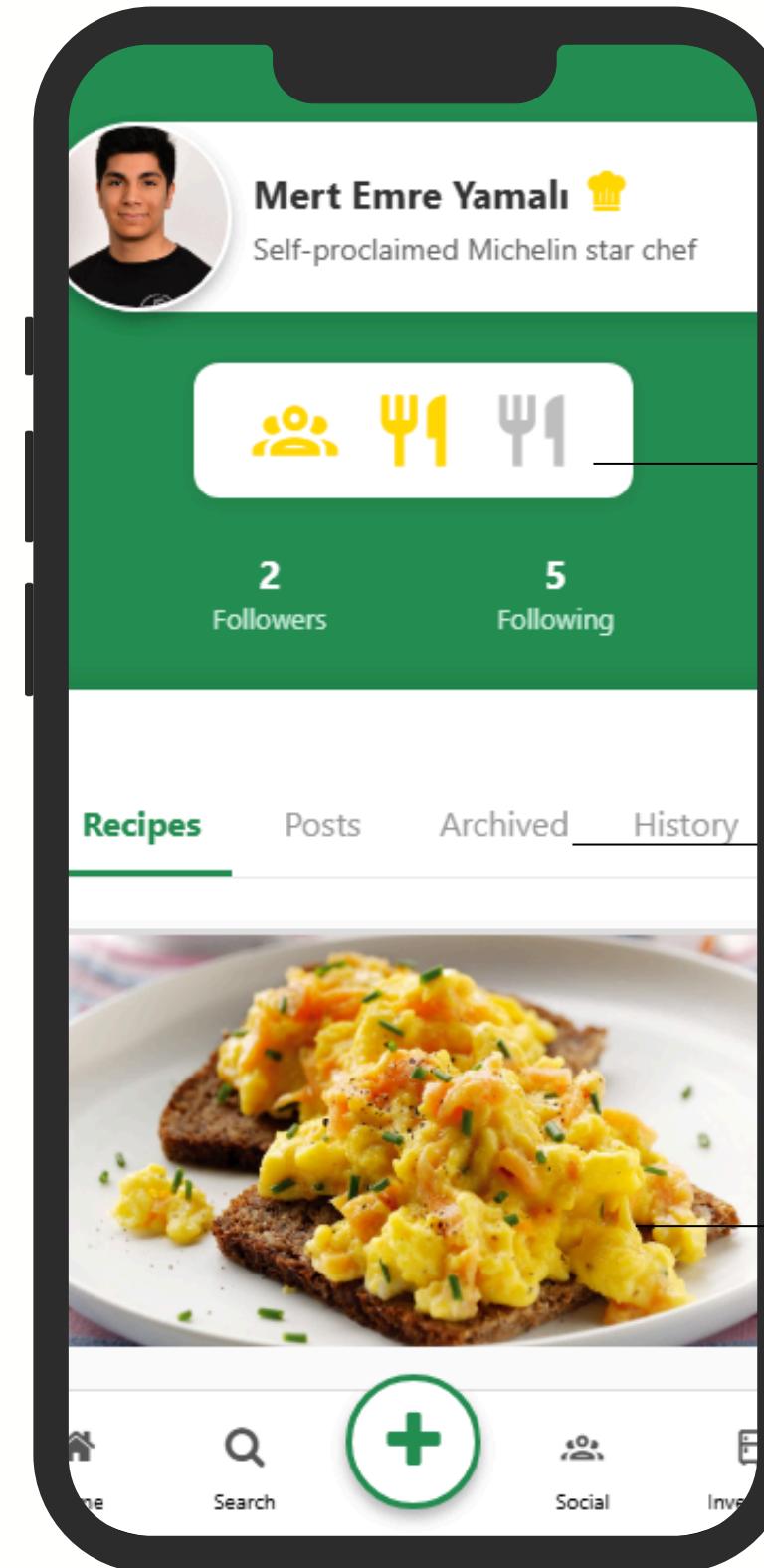
● Better Display of Data



# Implemented Features

## Detailed Profile Page

- Badge Display
- Easy access to user data
- Follower/Following system



- Badge Preview

- Easy Navigation Between User Data

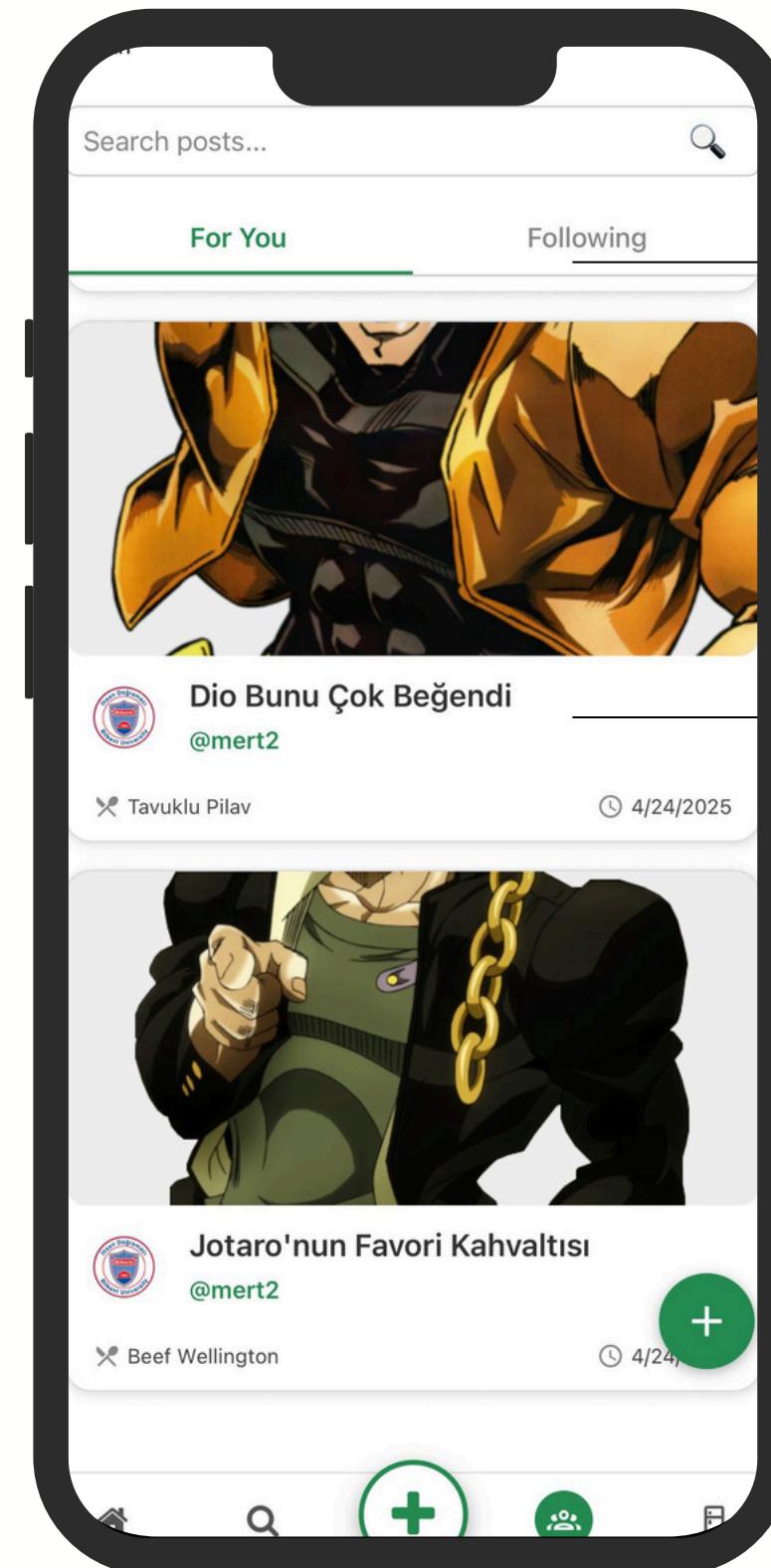
- Modular Display of Recipes



# Implemented Features

## Social Page

- Able to see and filter posts
- See Recipe Reference
- See what is trending



● Easy Navigation

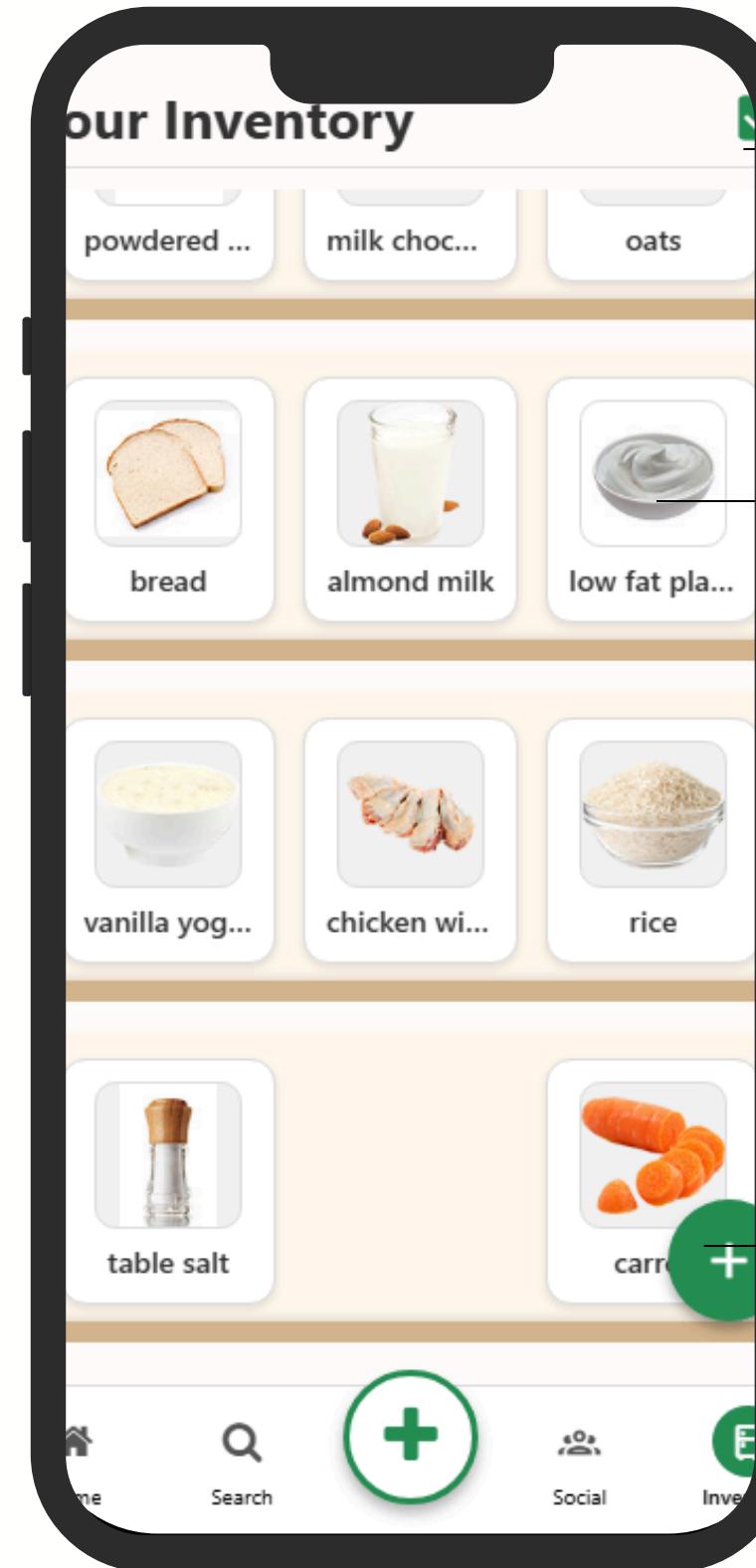
● Detailed Post Information



# Implemented Features

## Inventory Page

- Able to manage ingredients
- Massive database with pictures
- Recommendation algorithm



● Checking for deletion/recommendation

● Pretty Ingredient Display

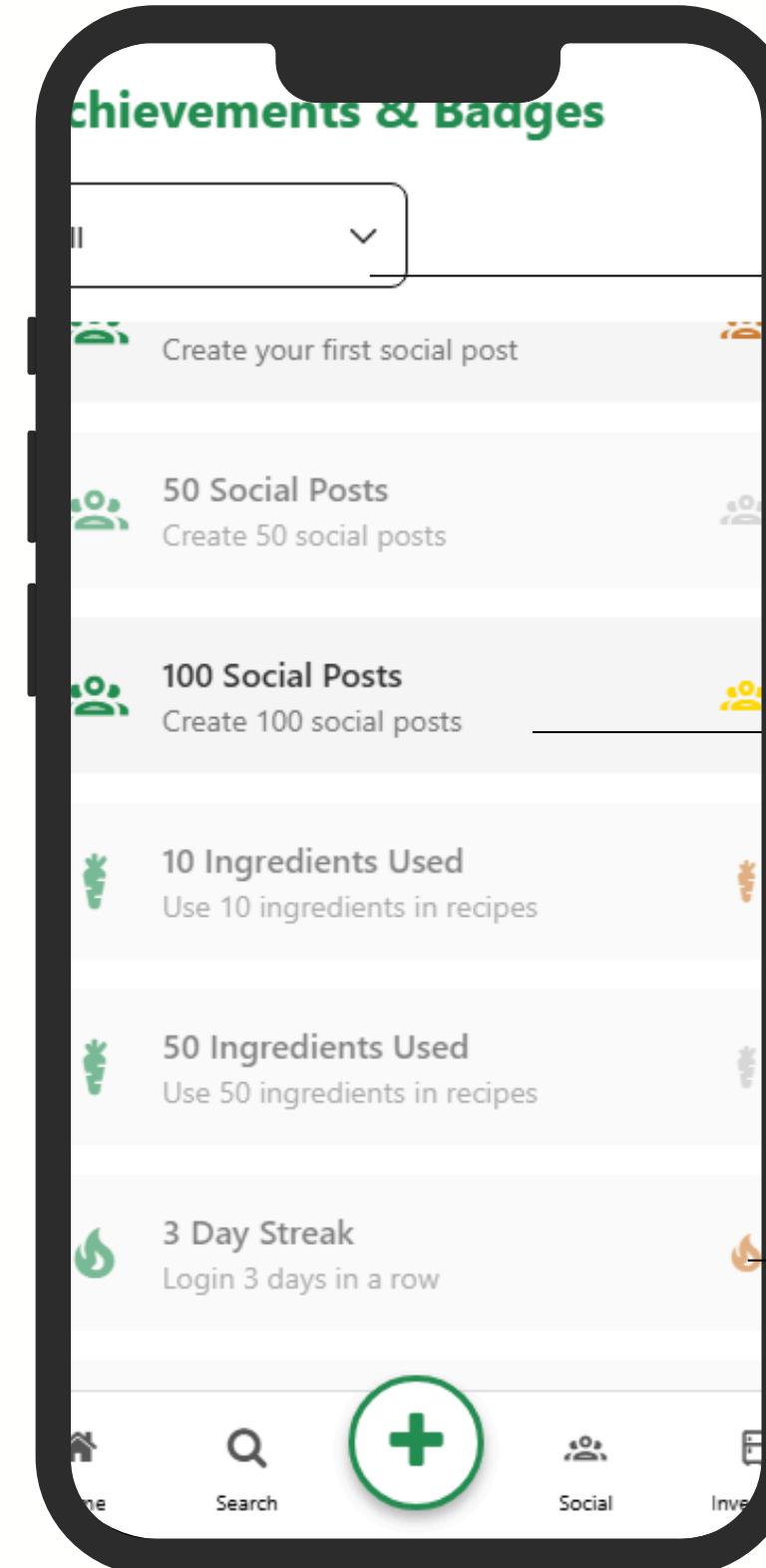
● Easy addition



# Implemented Features

## Achievements and Badges

- Gamified Aspect
- See your real time progress
- Earn badges to display in your profile



- Achievement Filter

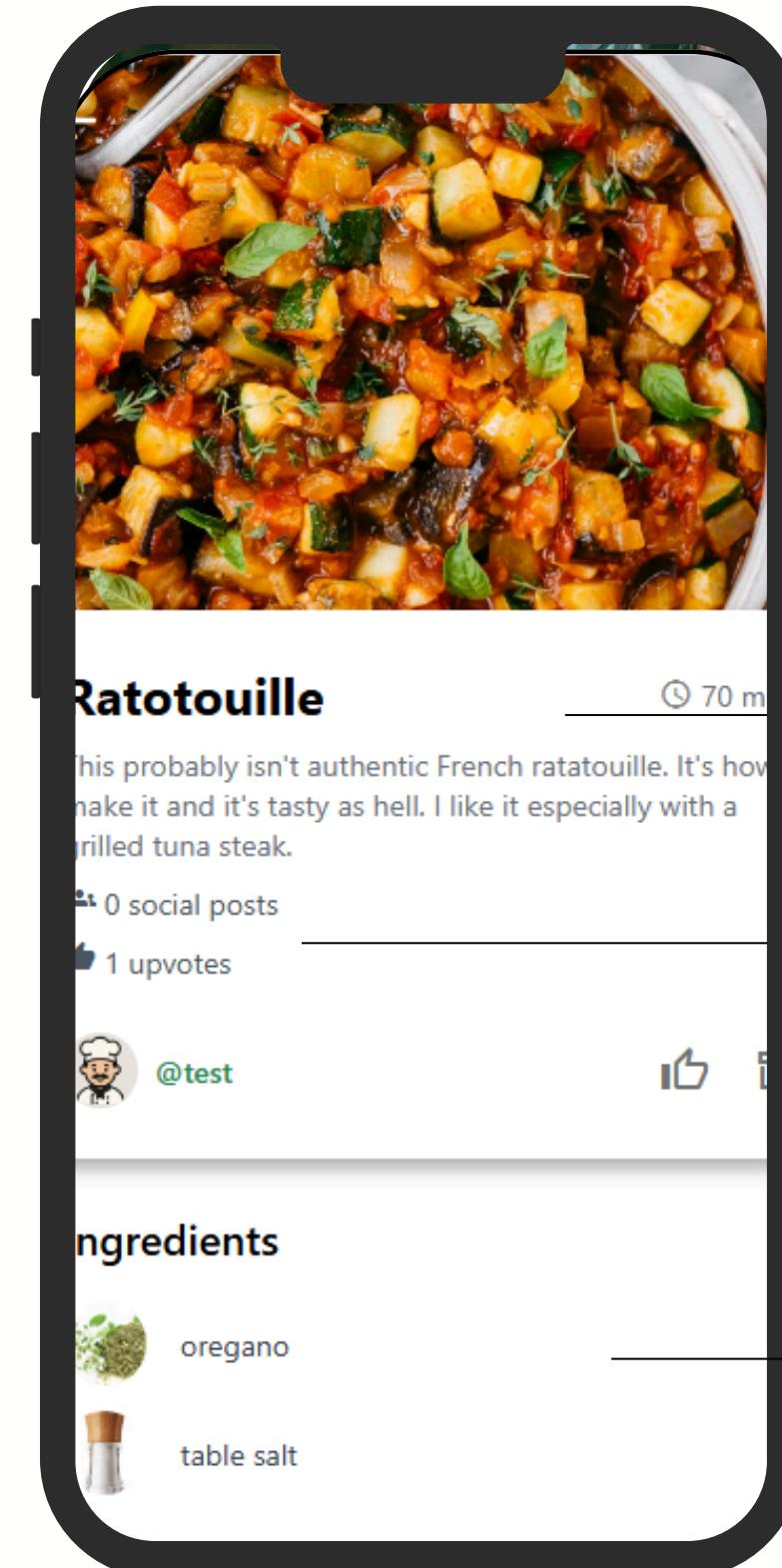
- Detailed Achievement Info

- Different Badges for each Achievement

# Implemented Features

## Upgraded Recipe Info Page

- Prettier and Simpler UI
- Implemented new ingredient system
- See real-time analytics



● Recipe Preview

● Analytics

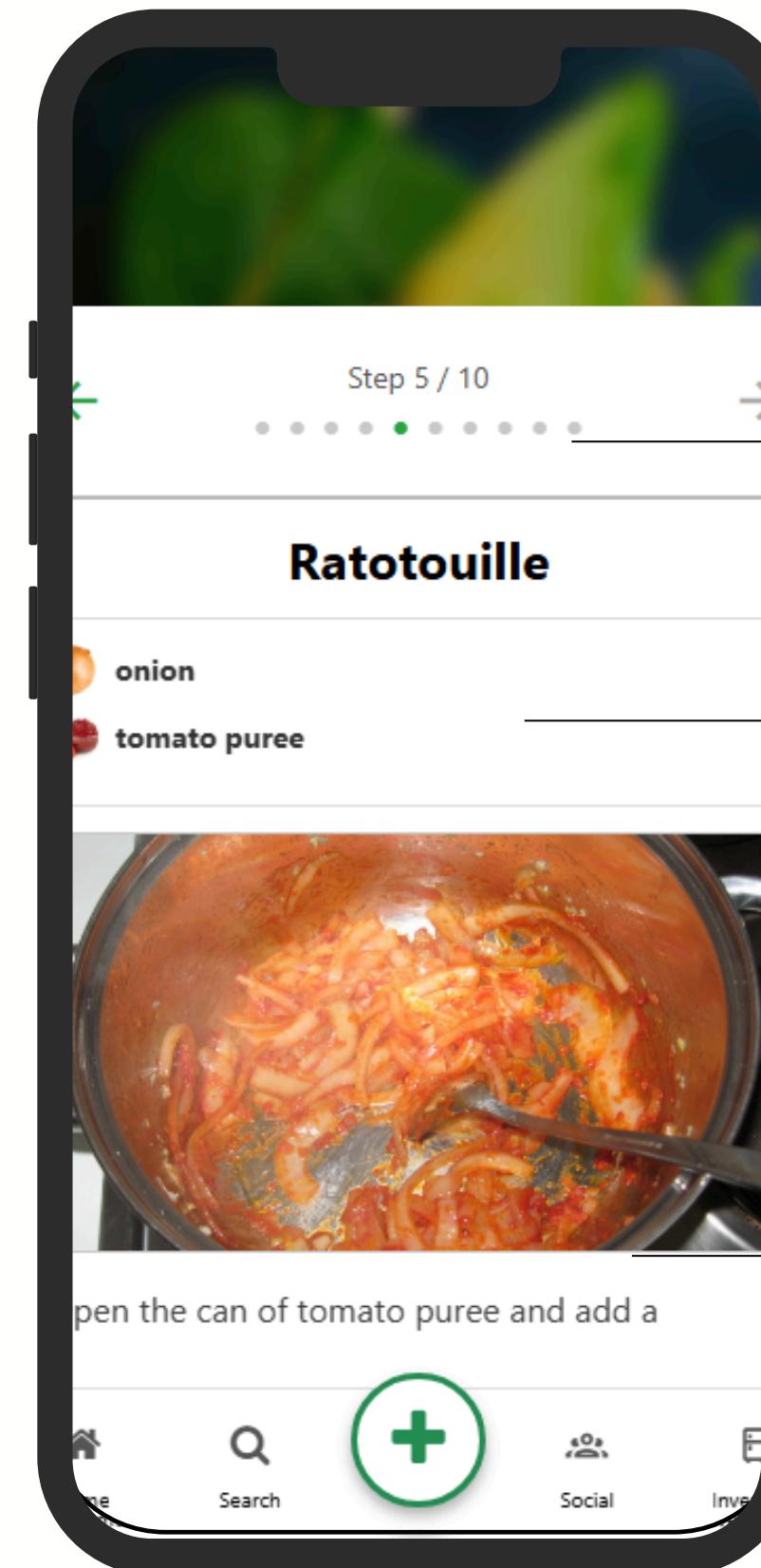
● Prettier Ingredient List



# Implemented Features

## Upgraded Recipe Instructions

- Easier Navigation between steps
- Upgraded ingredient list
- Voice system



- Easy Navigation

- Prettier Ingredients

- Voice Display and Recognition

04.

# SYSTEM ARCHITECTURE & DESIGN CHOICES



# SYSTEM ARCHITECTURE

## Yes Chef!

### Backend

Handle user authentication, manage recipe and post data, process ingredient information, and provide personalized recipe recommendations.

### Framework

.NET 8.0 was used to develop the backend for its' ease of development and its' high performance.

### Hosting

Azure is chosen as the Cloud Hosting service for its easy integration with GitHub Actions and its' provided sponsorship

### Frontend

Creating the user interface, allowing users to interact with the app, browse and share recipes, manage their ingredients,

### Framework

React Native was used to develop the frontend for its' cross-platform properties and ease of development.

### Platform

Expo was chosen as the platform for React Native for its' fast prototyping and cross-platform support.



.NET

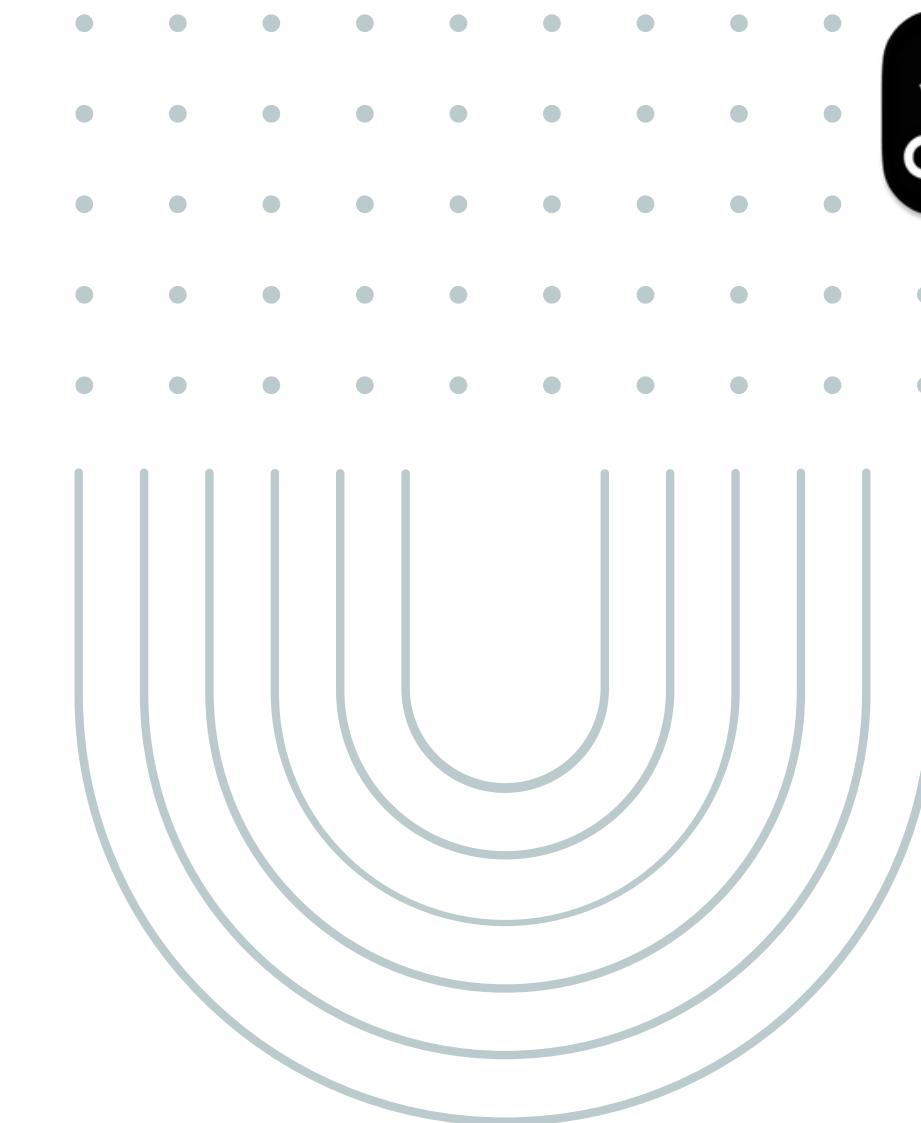
## Expo

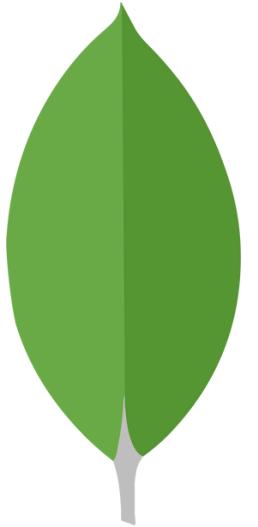
Chosen because it enables fast, cross-platform mobile development with minimal native configuration, allowing seamless deployment to both iOS and Android.

## .NET

.NET is chosen for its robust backend capabilities, strong typing, and seamless API development.

**FRONTEND  
AND BACKEND**





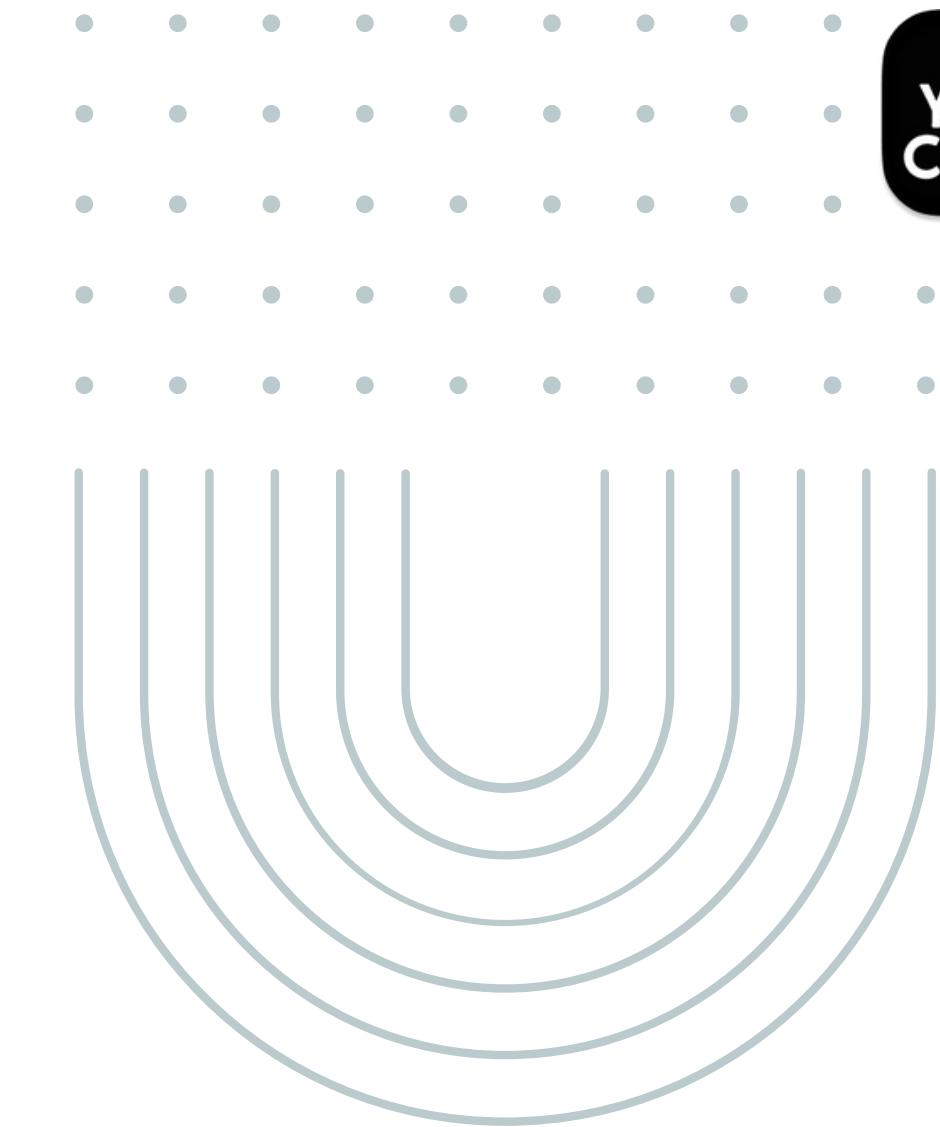
## MongoDB

MongoDB is chosen for its flexible schema and efficient storage of complex, evolving data.



## Firebase

Firebase is chosen for its easy-to-integrate authentication and real-time media management.



# DATA MANAGEMENT



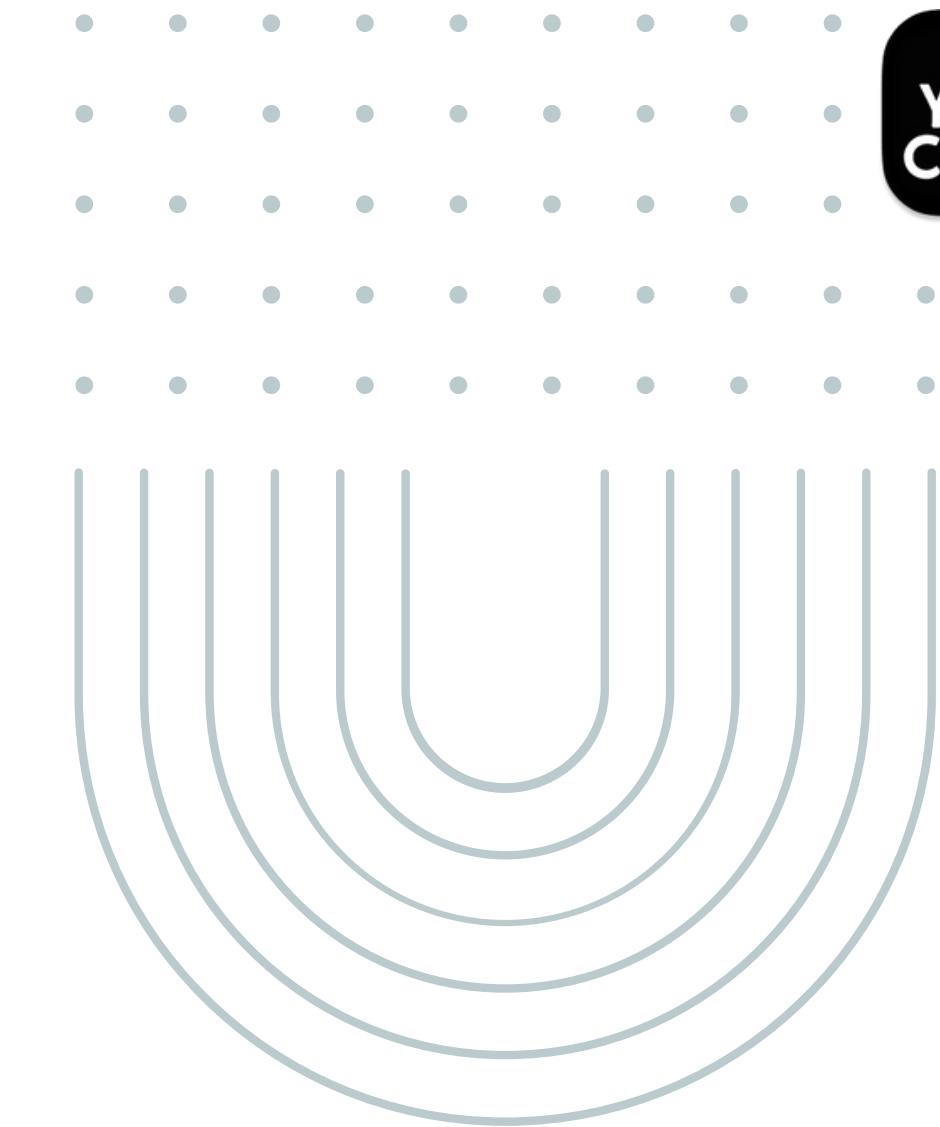
## GitHub

GitHub is chosen for streamlined version control and collaborative development.



## Azure

Azure is chosen for reliable cloud hosting and seamless backend deployment. As well as seamless integration with GitHub actions.

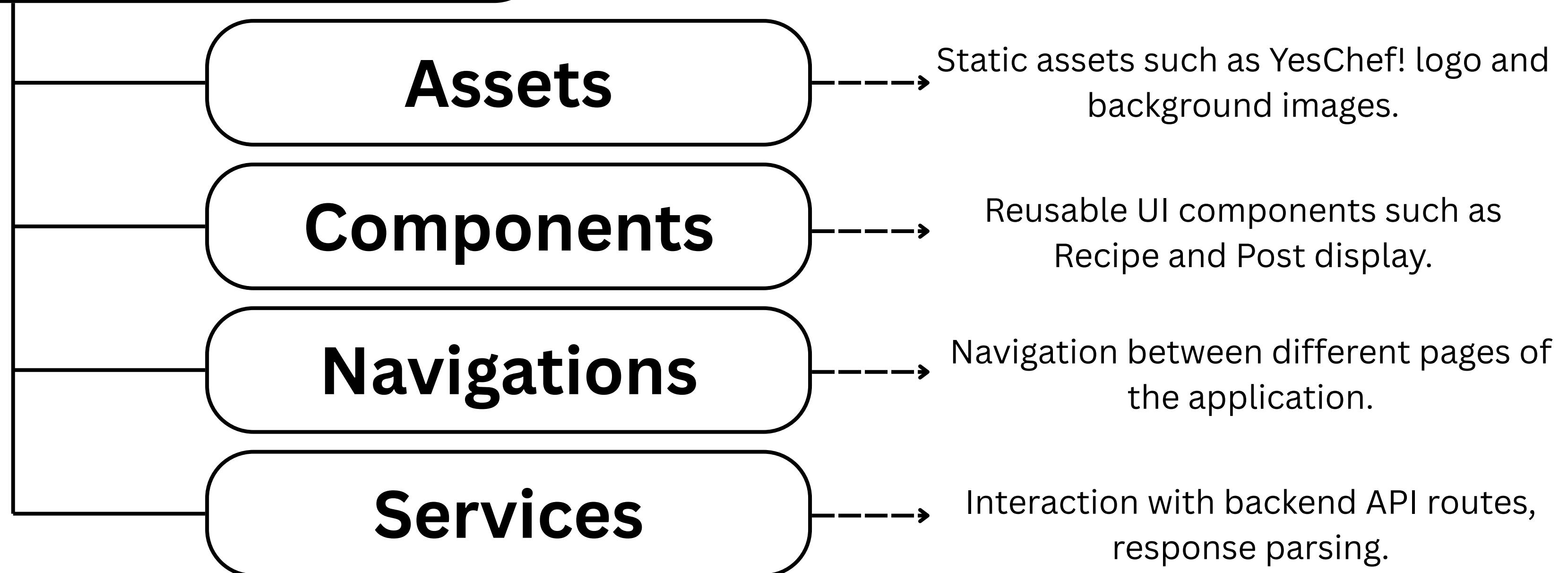


# DEVOPS

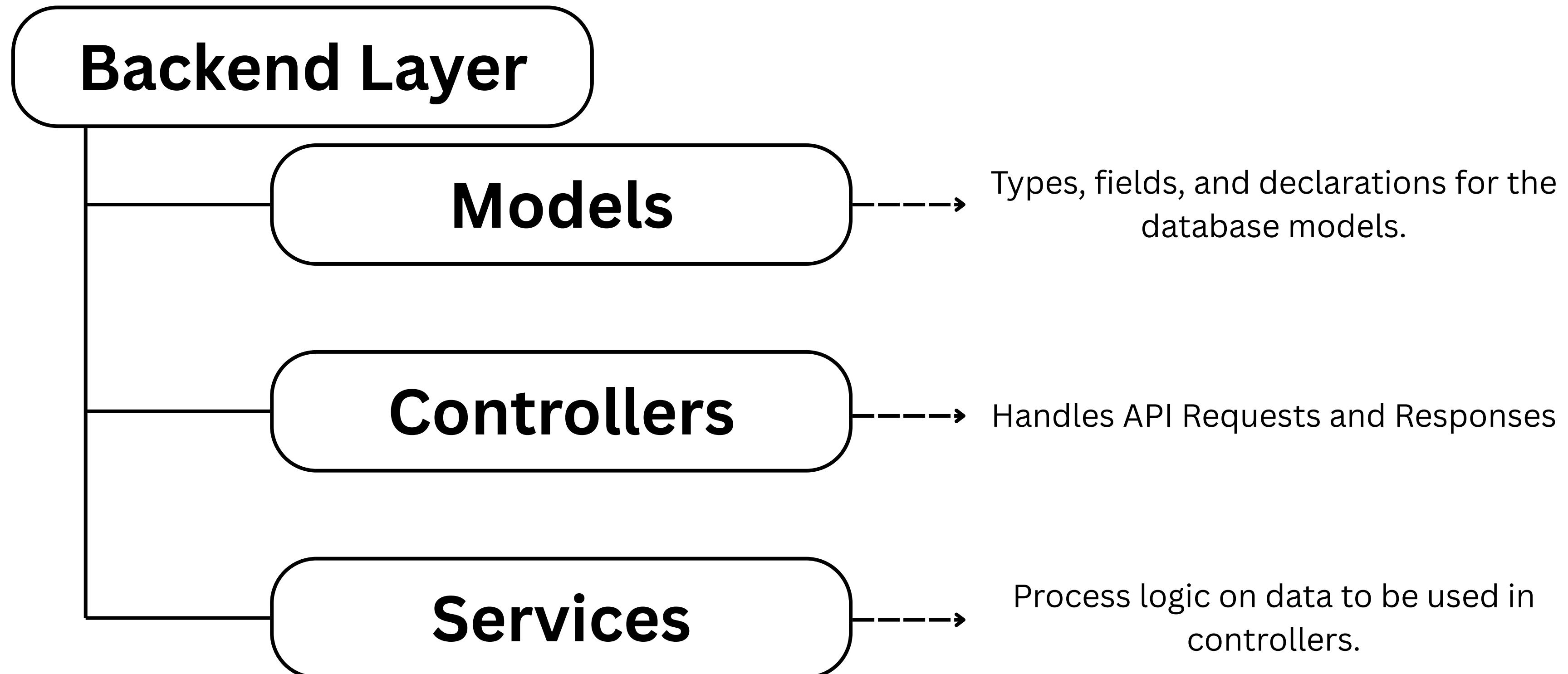
# FRONTEND LAYER DESIGN



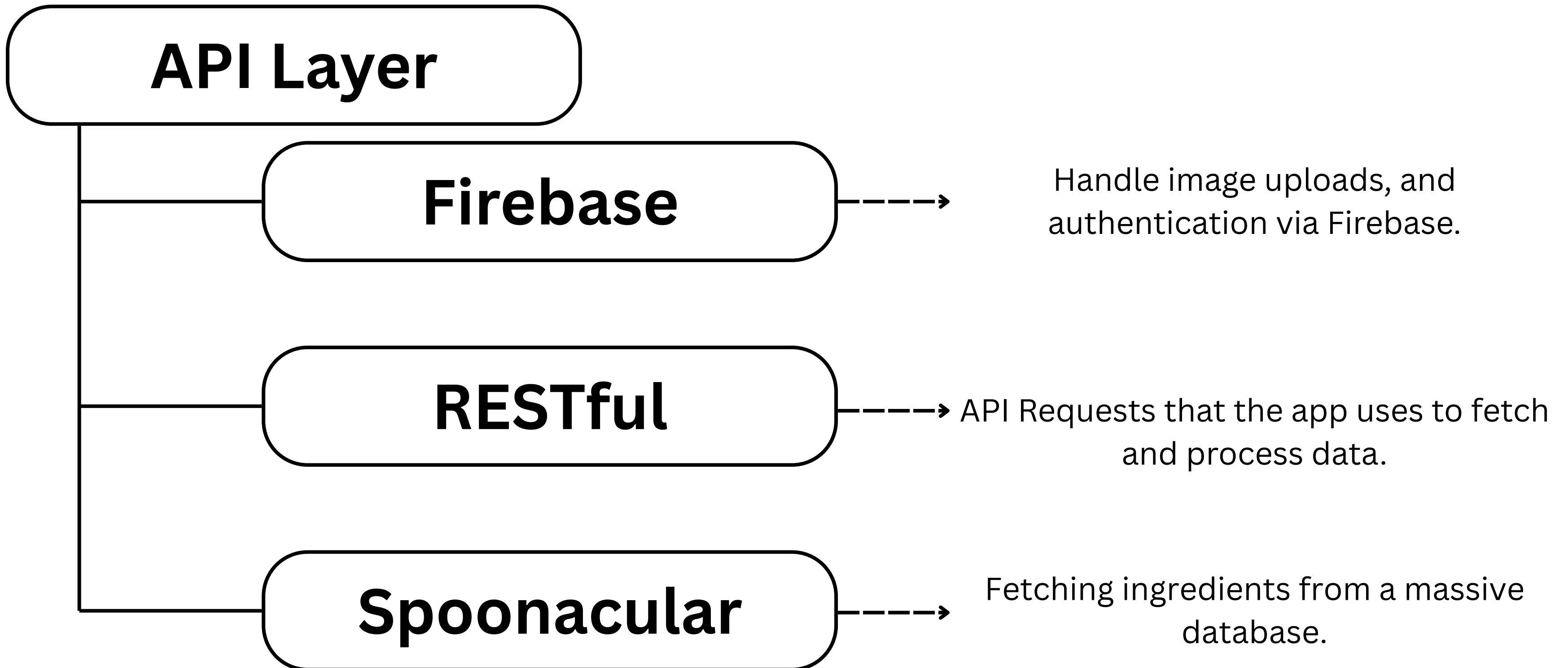
## Frontend Layer



# BACKEND LAYER DESIGN



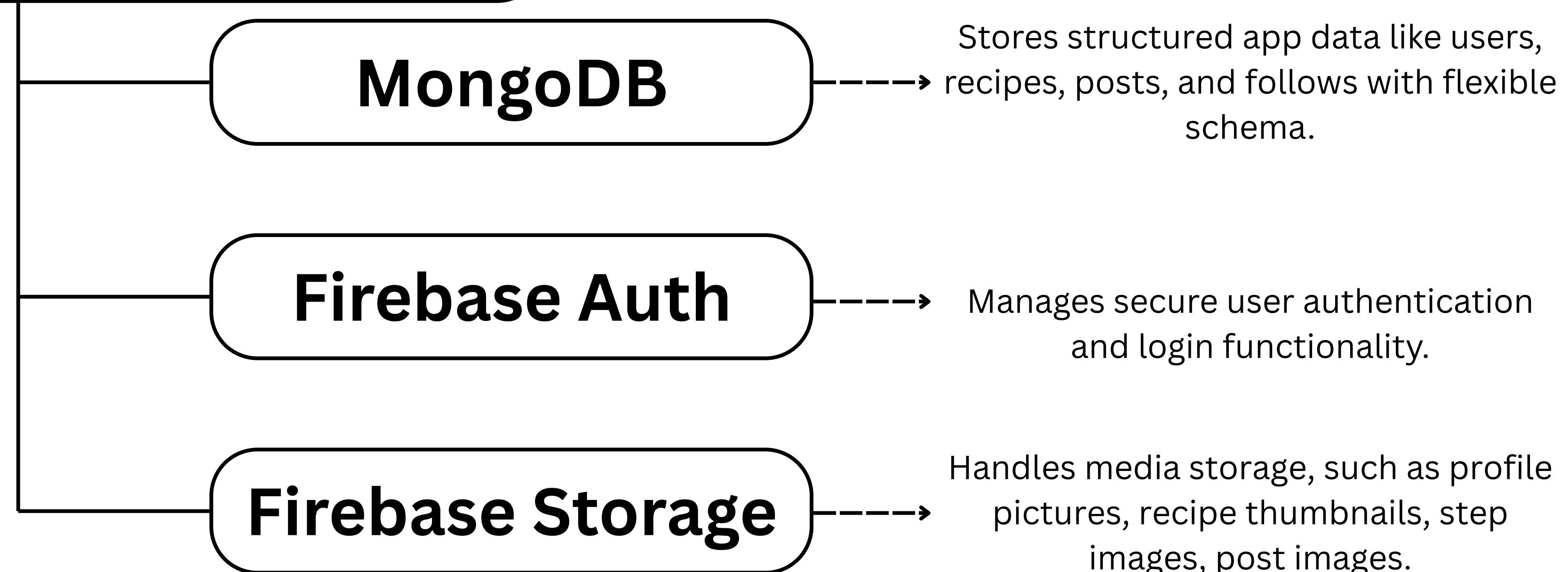
# API LAYER DESIGN



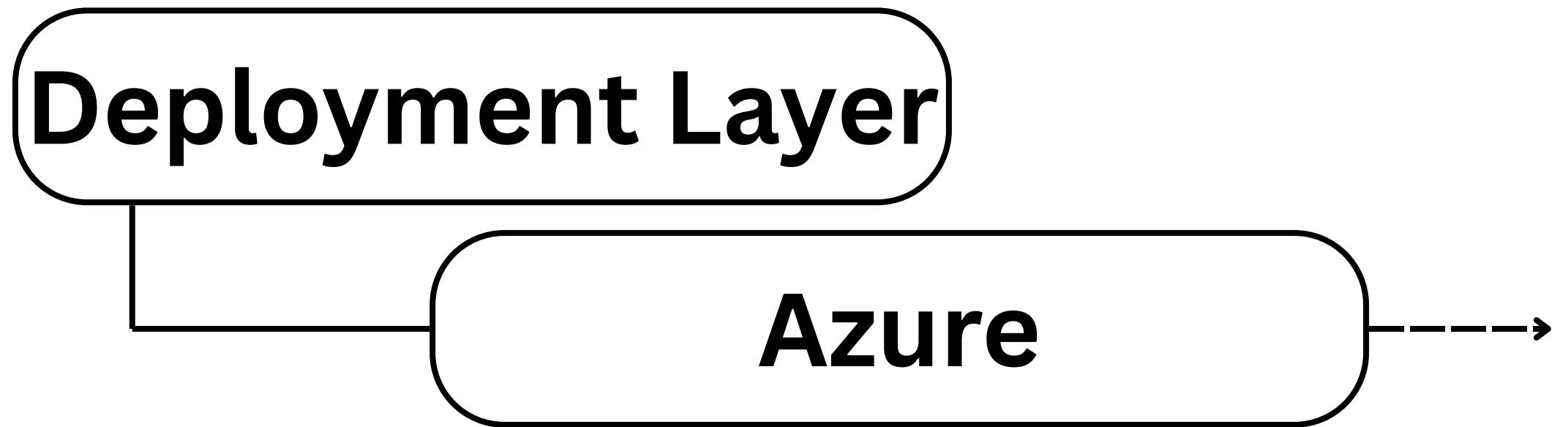
# DATABASE LAYER DESIGN



## Database Layer



# DEPLOYMENT LAYER DESIGN



Hosts backend server and API endpoints, ensuring reliable and scalable access.



# DESIGN PATTERNS USED

- MVC Pattern:
  - Separates data (Models), UI (Views), and business logic/API handling (Controllers).
- Singleton Pattern:
  - Ensures single instances for global services like Firebase Auth and Firebase Storage clients.
- Observer Pattern:
  - React hooks and Firebase real-time updates (e.g. useEffect, pull-to-refresh, live feed).
  - Firebase push notifications.
- Factory Pattern:
  - Reusable UI components (e.g. FoodItem, SocialPostItem).
- Facade Pattern:
  - API service layers (e.g. frontend ENDPOINTS, backend services for calling external APIs) simplify complex operations for consumers.
  - Spoonacular

05.

## FUTURE PLANS



1

## MORE DEPENDABLE ML MODELS

Right now we use centralized algorithms for recommendation and for you pages, dependable ML models could be trained for faster and more accurate results.

Since our application does not have a significant user database, we do not have many sponsors to lighten some of our operations.

## SPONSORSHIP DEALS

3

2

## DETAILED NUTRITIONAL INFORMATION

Although Yes Chef! presents an intuitive experience, the amount of data we feed to users is still limited.

Yes Chef! Uses very standard ways of integrating social features. Friendly races and more interaction could be implemented.

## BETTER SOCIAL FEATURES

4

# References

- [1] "Online food delivery - Turkey: Statista market forecast," Statista, <https://www.statista.com/outlook/emo/online-food-delivery/turkey#revenue> (accessed Dec. 20, 2024).