

Project: MealMate

Subject: CS691
Computer Science
Project 1

Agenda

- ▶ The Objective of this meeting is to give an overview of the Project
- ▶ The aim of this meeting is to evaluate our progress towards meeting deadlines, ensure alignment on our advancements, tackle any obstacles, and coordinate our next steps regarding development.
- ▶ We will discuss the importance of submitting deliverables on time, marking significant dates, and incorporating them into a shared calendar.
- ▶ Topics for the presentation will be deliberated upon, and the presentation will undergo iterative updates.
- ▶ We will verify the requirements from the client's perspective, considering aspects such as personas and all project necessities.
- ▶ Risk assessment will be a topic of discussion.
- ▶ Active participation, attendance, cooperation, teamwork, and attention from each team member are essential for the project's success.



Team Members Roles



Sarath Upadrasta
Business Analyst &
Developer



Archana
Project Manager
Quality Analyst & Tester



Dharavath, Harika
Database Administrator

Team Members Roles



Pavan
Developer



Avhad, Dipali Vijay
Developer



Kundan
Developer

Improvements made from Professor's Feedback

- Post the deliverable 1 presentation, we received feedback from the professor on adding the personas and making few changes in our retrospective section which we did accordingly which can be seen in the further slides.

PROBLEM STATEMENT

These days, people who live alone or with their families often struggle with planning meals. It can be tough to decide what to cook, especially when you have lots of different vegetables at home. You have to check what veggies you have before you can pick a recipe. So, figuring out meals can take a lot of time and effort. People find it hard because they have to think about what everyone likes to eat and what's healthy too. Sometimes, it feels like a big job just to get dinner ready. So, meal planning can be a bit of a hassle for many folks.



PROJECT DESCRIPTION

Introducing the "MealMate" web app - your new kitchen companion! Our goal is to make meal planning easier and more fun using the latest technology. With our app, all you have to do is snap a picture of the veggies you have, and we'll do the rest! Using smart image processing, we'll suggest recipes just for you based on what's in your kitchen. Say goodbye to the hassle of deciding what to cook and hello to delicious meals tailored to your ingredients. "MealMate" promises to make cooking simpler and more enjoyable for everyone.



Personas



Persona 1



Demographics:

Name: Sarah

Age: 32

Occupation: Marketing Executive

Profile:

Sarah is a busy marketing executive who often struggles with meal planning due to her demanding job. She enjoys cooking but finds it challenging to make time for it amidst her busy schedule.

Interests:

Sarah enjoys experimenting with new recipes and flavors when she has the time. She is interested in maintaining a healthy lifestyle but struggles to find the time to plan and prepare nutritious meals.

Frustration:

Sarah is frustrated by the lack of time she has to plan and prepare meals, often resorting to unhealthy takeout options due to her busy schedule.

Goals:

Sarah's goal is to find a convenient solution for meal planning that fits into her busy lifestyle. She wants a tool that can help her quickly and easily plan nutritious meals using the ingredients she already has at home.

Persona 2



Demographics:

Name: Michael

Age: 25

Occupation: Recent College Graduate

Profile:

Michael is a recent college graduate who has just moved into his first apartment. He is eager to learn how to cook but feels overwhelmed by the variety of ingredients available at the grocery store.

Interests:

Michael is interested in learning how to cook simple and nutritious meals that he can enjoy at home. He wants to improve his culinary skills and become more confident in the kitchen.

Frustration:

Michael is frustrated by his lack of experience in the kitchen and feels overwhelmed by the prospect of cooking for himself. He often struggles to come up with meal ideas and ends up ordering takeout instead.

Goals:

Michael's goal is to improve his cooking skills and become more confident in the kitchen. He wants a tool that can provide him with easy-to-follow recipes based on the ingredients he has on hand, helping him to experiment with new flavors and techniques.

Persona 3



Name: Emily

Age: 35

Occupation: Stay-at-Home Mom

Profile:

Emily is a dedicated stay-at-home mom who prioritizes providing healthy meals for her family. She wants to reduce food waste and find creative ways to incorporate vegetables into her family's diet.

Interests:

Emily is passionate about cooking and enjoys finding new recipes to try. She is interested in nutrition and wants to ensure that her family eats balanced meals that are both healthy and delicious.

Frustration:

Emily is frustrated by the challenge of finding new and exciting recipes that her family will enjoy. She often feels guilty about wasting food and wants to find ways to reduce food waste in her household.

Goals:

Emily's goal is to find a tool that can help her plan healthy and balanced meals for her family while also reducing food waste. She wants an app that can suggest creative recipes based on the ingredients she has in her pantry, making mealtime both nutritious and enjoyable for her family.



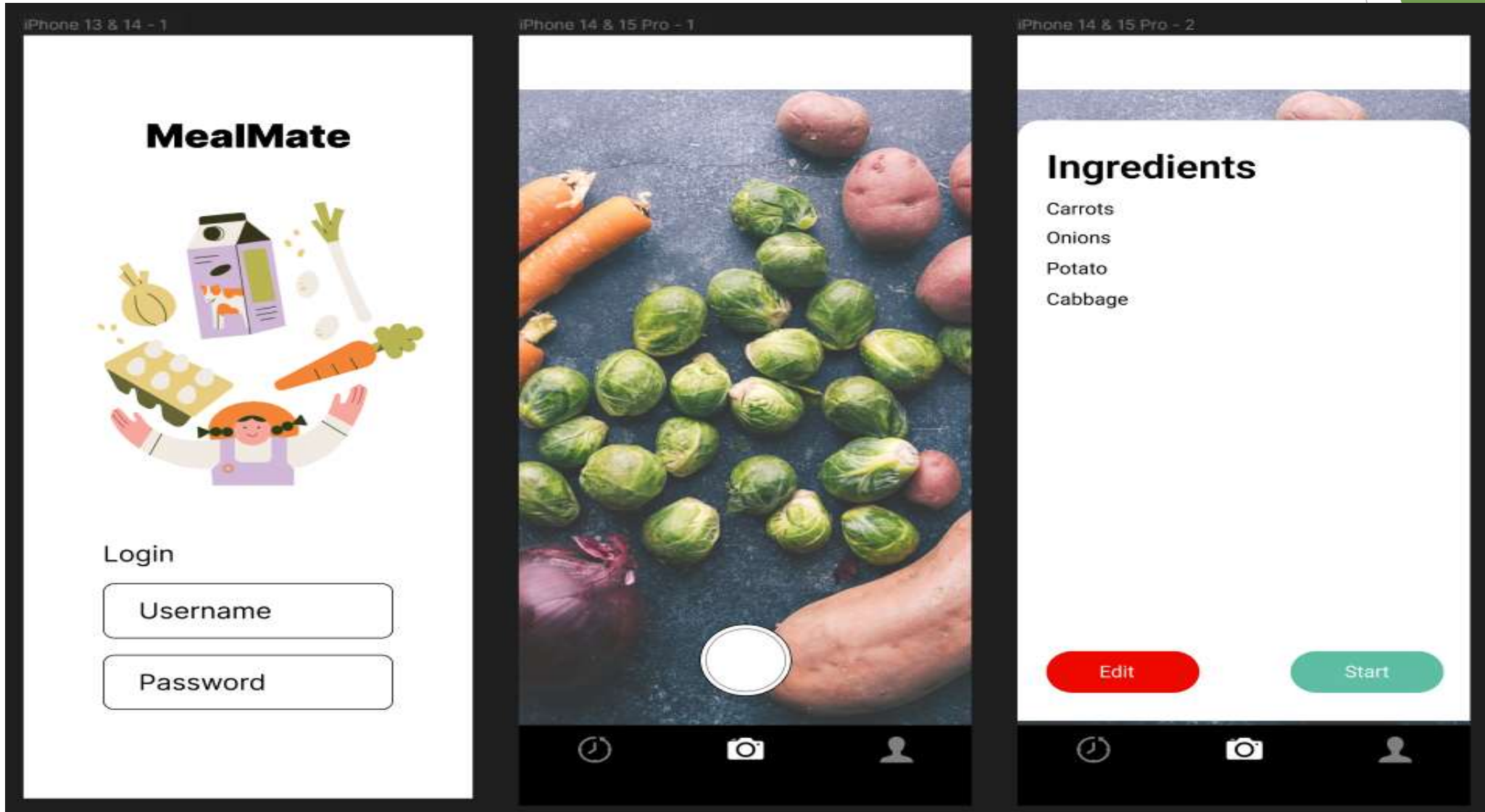
Minimal Viable Product (MVP)

Minimal Viable Product (MVP)

The following are the features that we are covering in our MVP:

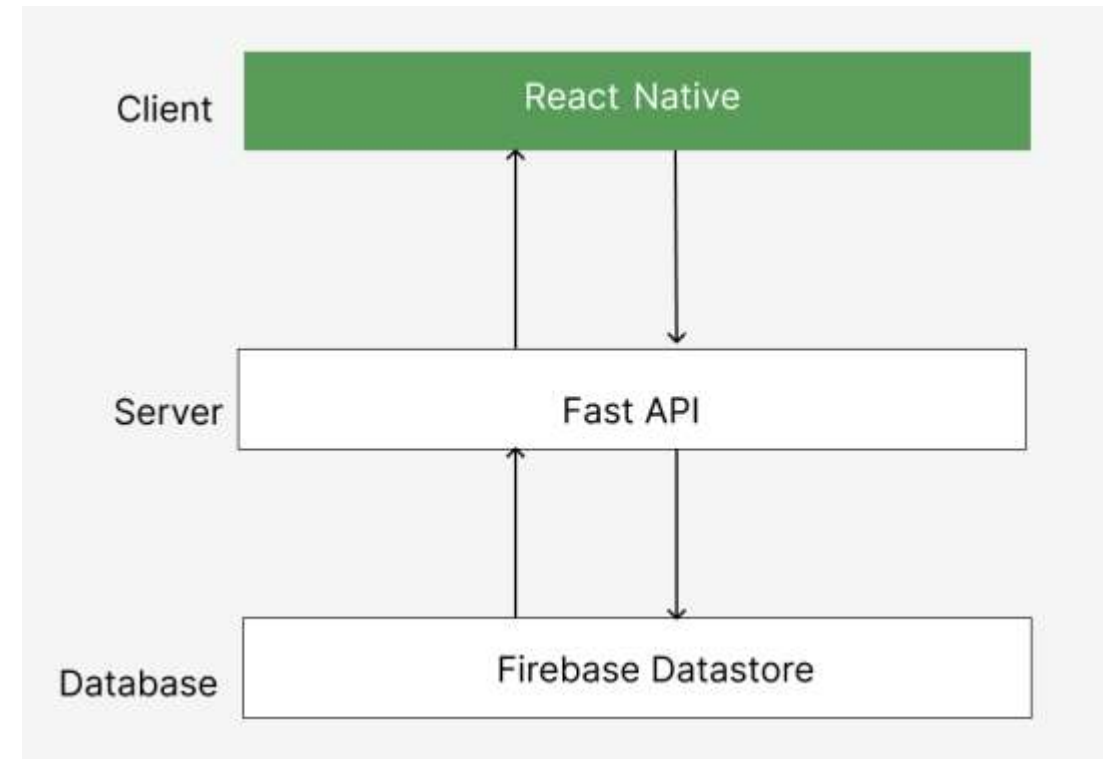
- ▶ Login Screen
- ▶ Sign in
- ▶ Home Page
- ▶ Camera screen
- ▶ Profile Screen
- ▶ History

Minimal Viable Product (MVP)

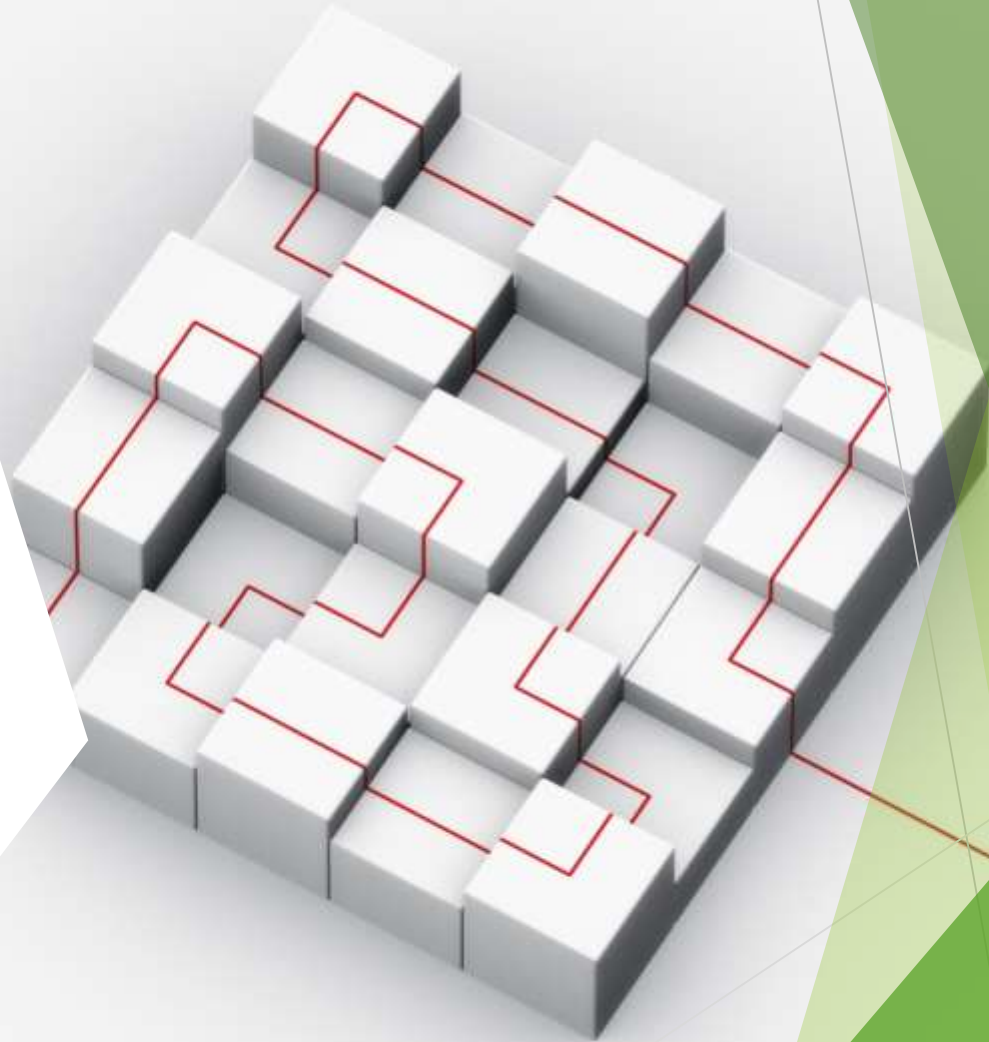


Technologies

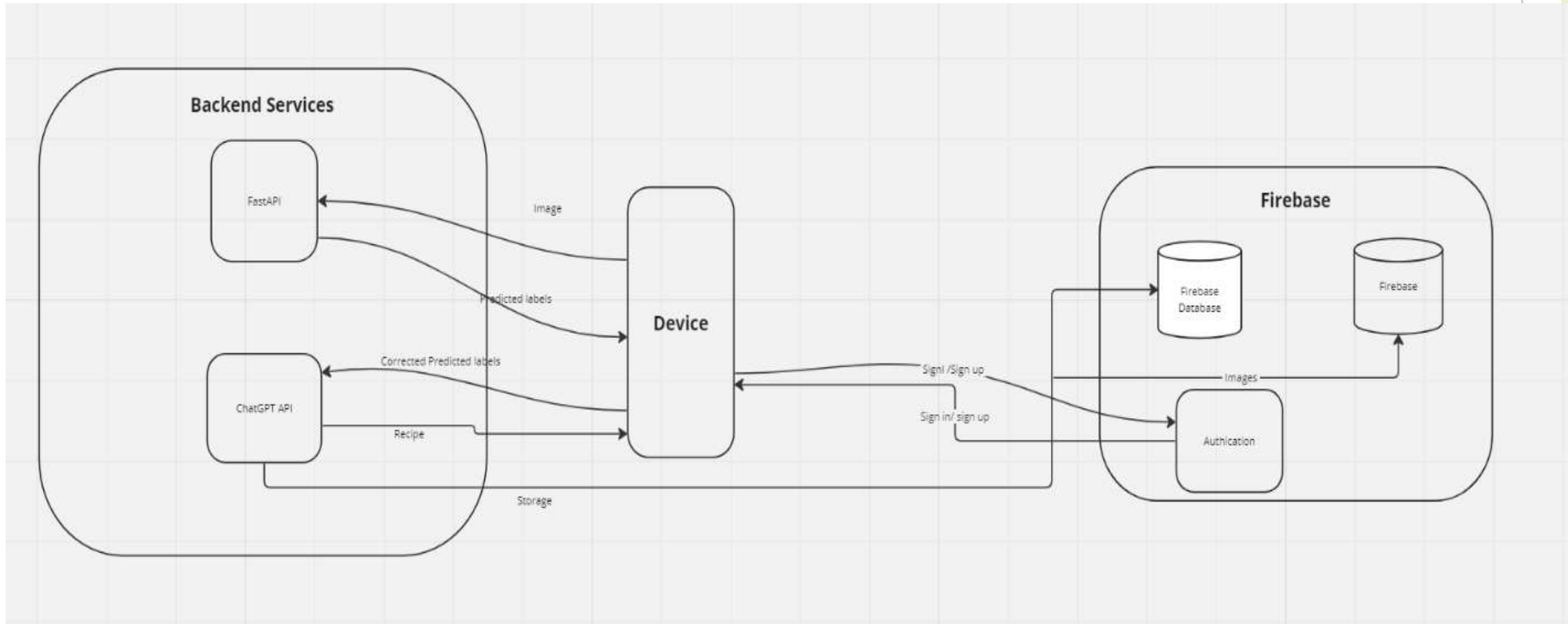
- ▶ React Native
- ▶ Python
- ▶ FastAPI
- ▶ Firebase Datastore
- ▶ ChatGPT API
- ▶ Git/Github
- ▶ JIRA



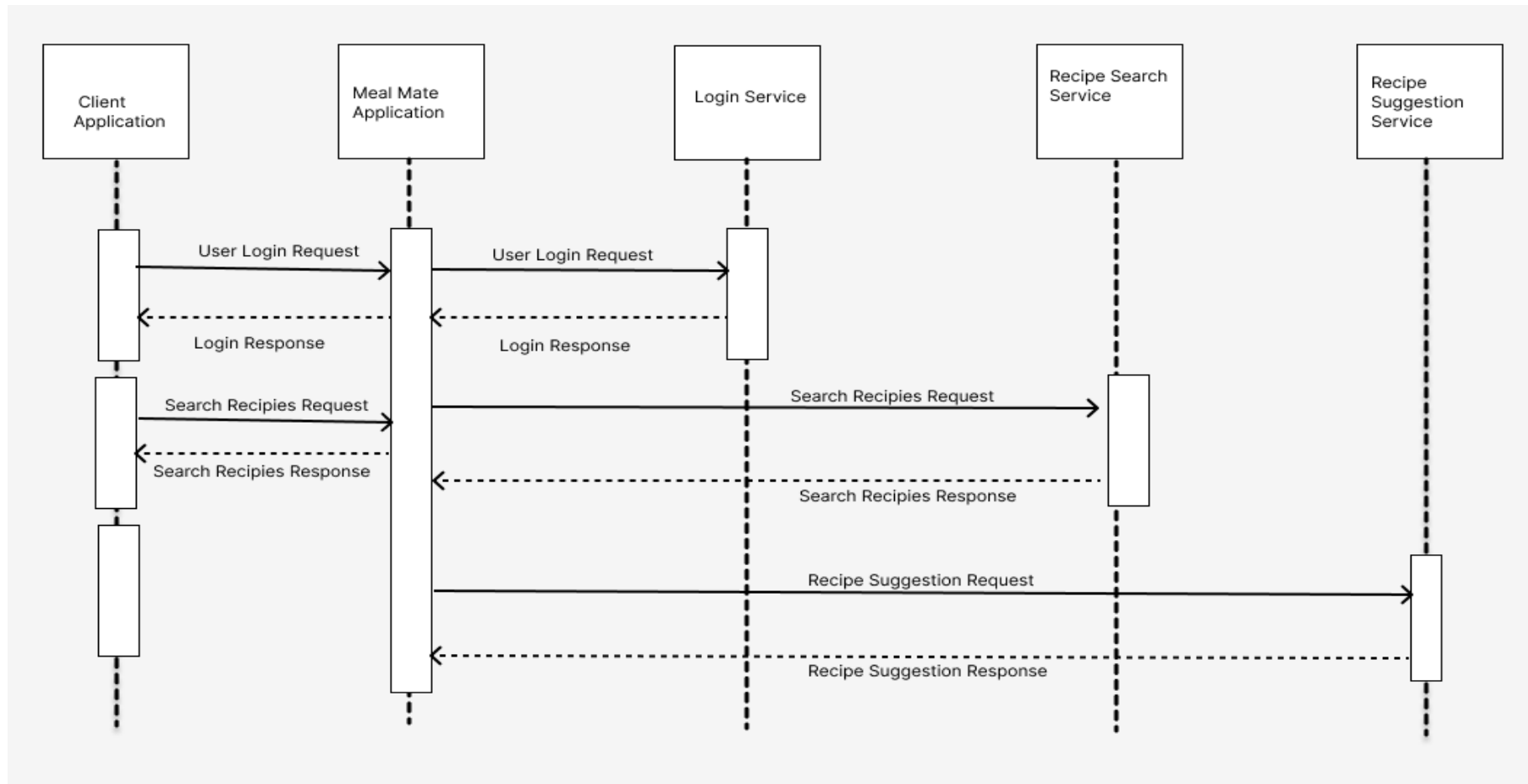
Architecture Diagram



Conceptual Architecture Diagram



Sequence Architecture Diagram



Product backlog

| | A | B | C |
|---|--|--------|---|
| 1 | Product Backlogs | Status | |
| 2 | Create user documentation or manuals for using the application | TO-DO | |
| 3 | Perform thorough testing, including functional, integration, and user acceptance testing | TO-DO | |
| 4 | Develop functionality to allow users to manually input ingredients | TO-DO | |
| 5 | Implement backend logic to store and manage user ingredients. | TO-DO | |
| 5 | Integrate ingredient data with the recipe retrieval system | TO-DO | |
| 7 | Add functionality for users to update their profile information | TO-DO | |
| 8 | Implement profile picture upload feature | TO-DO | |
| 9 | Enhance UI/UX for the profile section | TO-DO | |
| 0 | Enhance user interface for taking pictures and displaying ingredient results. | TO-DO | |
| 1 | Improve image processing algorithms for ingredient detection | TO-DO | |
| 2 | Implement error handling for cases where ingredient detection fails | TO-DO | |
| 3 | Develop a feature to track user activity and recipe history | TO-DO | |
| 4 | Implement a UI to display past recipes viewed by the user | TO-DO | |
| 5 | Integrate with external APIs or databases to fetch recipes based on detected ingredients | TO-DO | |
| 6 | Develop algorithms to filter and sort recipe results effectively | TO-DO | |
| 7 | Implement additional security measures such as encryption for user data | TO-DO | |
| 8 | Enhance authentication mechanisms to prevent unauthorized access | TO-DO | |
| 9 | Optimize app performance for smoother user experience | TO-DO | |
| 0 | Address any reported bugs or issues | TO-DO | |
| 1 | Conduct usability testing and incorporate feedback for improvements | TO-DO | |
| 2 | Prepare for scaling the application to handle increased user traffic | TO-DO | |
| 3 | Plan deployment strategies for multiple platforms (iOS, Android). | TO-DO | |
| 4 | Implement a feedback mechanism for users to provide suggestions or report issues | TO-DO | |
| 5 | Regularly review user feedback and prioritize feature enhancements accordingly | TO-DO | |
| 6 | | | |

Acceptance Criteria & User stories

| Acceptance Criteria | | |
|---------------------|---|--------|
| ID | Summary | Place |
| DC5-42 | <p>As a customer I want to be able to search on the webpage So that I can find necessary information</p> <p>Scenario: customer searches for an images</p> <p>"Given that I'm in a role of registered or guest customer When I open the "Recipes" page Then the system shows me the list of all the vegetables And the system shows the "Search" section in the right bottom corner of the screen When I fill in the "Search" field with the name of existing item in the list And I click the "Apply" button OR press the Enter key on keyboard Then the system shows Recipes And the system shows the number of search results in the top of the Search Results section"</p> | Search |
| DC5-40 | <p>As a customer I want to add different ingredients So that I will be able to make dish easy for me.</p> <p>Scenario: Adding Ingredients</p> <p>"Given As a user, navigate to the "Ingredients" section of the app. When the customer see a list of ingredients detected from a previous photo or manually entered. And customer tap on the "Add Ingredient" button Then a text field appears where customer can type the name of the ingredient. After entering the name, customer tap "Add" or press Enter. The ingredient is added to the list, and I can now use it to search for recipes.</p> | Camera |
| DC5-43 | <p>As a customer I want to be able to recover my account customer ID/Name So that I will be able to access my account in case I forgot the account.</p> <p>Scenario: Editing Profile Information</p> <p>"Given I navigate to the "Profile" area of the app as a user. When the customer can see my name, email address, and maybe some other information on my current profile. And customer select "Edit Profile" by tapping on it, now they able to make modifications because the fields are editable. Once the data has been updated, I hit "Save" or a button akin to it. The modified information is reflected in my profile and the changes are saved.</p> | Login |
| DC5-39 | <p>As a customer I want to be access the my recipe history. So that I will be able to access any time if I want have same recipes</p> <p>Scenario: Browsing Recipe History</p> <p>"Given I go to the "History" portion of the program as a user. When I get a list of the recipes that I have previously viewed or searched for. Then I go down the list in search of a certain thing I want to look at again. When When I locate the item I want, I tap on it to see more information. Then I may prepare the recipe again or save it for later use by using the app, which shows the recipe details.</p> | |



UNCLEAR
ACCEPTANCE
CRITERIA

DEVELOPMENT

CHECKING
OF RESULTS

REQUEST
FOR CHANGE

DEVELOPMENT
(Implementation of changes
according to new requirements)

CHECKING
OF RESULTS



CLEAR
ACCEPTANCE
CRITERIA

DEVELOPMENT

CHECKING
OF RESULTS

Acceptance Criteria & User stories

[illegible]

Acceptance Criteria & User stories

[illegible]

Test Cases

| Test Cases | | | | | | | |
|--------------|-----------------|---|---|-------------------------------------|--|---------------|-----------|
| Test case id | Unit to test | Assumptions | Test data | Steps to be executed | Expected Results | Actual Result | Pass/Fail |
| DCST - 1 | Login | Login should be successful | Email - test@mealmate.com, Password - test123 | Homepage -> Login | Check results on entering valid User Id & Password | | |
| DCST - 2 | Login | It should show an error as "Invalid Username or Password" | Email - test@mealmate.com, Password - test | Homepage -> Login | Check results on entering Invalid User ID & Password | | |
| DCST - 3 | Login | It should show an error as "Invalid Username or Password" | Email - xyz@mealmate.com, Password - test | Homepage -> Login | Check response when a User ID is Empty & Login Button is pressed | | |
| DCST - 4 | Sign Up | Sign Up should be successful | Email - any, Password - anything in between 8 to 16 | Homepage -> Sign Up | Check results on entering valid User Id & Password | | |
| DCST - 5 | Sign Up | It should show an error as "Username already in use" | Email - test@mealmate.com, Password - test123 | Homepage -> Sign Up | Check results on entering Already in Used User ID | | |
| DCST - 6 | Sign Up | It should show an error as "Enter the Password with given parameters" | Email - test@mealmate.com, Password - test | Homepage -> Sign Up | Check response when a Password is containing all the given parameters | | |
| DCST - 7 | Forgot password | Should direct to the email to reset the password | | Homepage-> Login -> Forgot Password | Password Reset and directed to login page again | | |
| DCST - 8 | Profile | Profile creation should be successful | | Homepage-> Login-> Profile | Check all the details filled with valid zip codes and phone numbers. | | |
| DCST - 9 | Profile | Show an error with missing fields | | Homepage-> Login-> Profile | Check to missing/mandatory fields" | | |
| DCST - 10 | Homepage | should display home page with camera icon | | Homepage | Check if the categories are correct | | |
| DCST - 11 | Recipe Page | Recipe should display the list of suggested vegetables | | Homepage -> Recipe | Check if the vegetables are displaying or not | | |
| DCST - 12 | Homepage | Customers should be able to access the homepage | | Homepage | Once directed with url, you will be first redirected to homepage. | | |
| DCST - 15 | History | Customer should be able to search for images listed | | Homepage-> History | History must provide the search box for user to search for desired services. | | |
| DCST - 16 | History | History displayed in search field should be relevant to logged in user only | | Homepage-> History | Search box on History must display relevant information previously searched by the user. | | |



Sprint Backlog

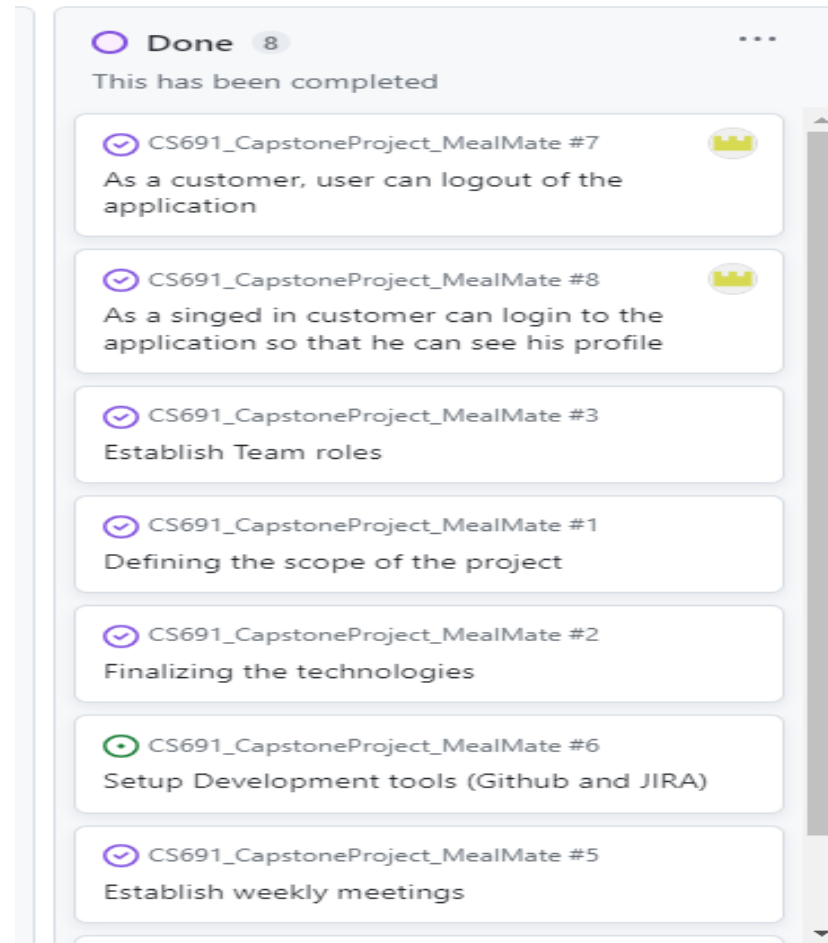
Sprint Backlog

| Sprint 3 | | | | |
|---|--------|----------|----------|--|
| Name | Status | Priority | Estimate | |
| Draft Technical Pager | TO-DO | | | |
| Develop Registration Page | TO-DO | | | |
| Develop Front-End HomePage | TO-DO | | | |
| Develop Front-End Profile Page | TO-DO | | | |
| Develop Front-End History Page | TO-DO | | | |
| Develop Front- Recipe Page | TO-DO | | | |
| Integrate Camera Feature to upload Images | TO-DO | | | |
| Develop API to Retrieve History | TO-DO | | | |
| Develop API to Retrieve Profile | TO-DO | | | |
| Swagger API and Postman Integration | | | | |
| Adding DB Schema and Dummy Data | TO-DO | | | |
| Demo | TO-DO | | | |
| | | | | |
| | | | | |

Sprint Backlog

| | A | B | C | D | E |
|----|---------------------------------------|----------|------------|---------------------|---|
| 1 | Sprint 4 | | | | |
| 2 | Name ▼ | Status ▼ | Priority ▼ | Estimation (Days) ▼ | |
| 3 | Finish Development of Frontend | TO-DO | | | |
| 4 | Add the Validations for all the forms | TO-DO | | | |
| 5 | Finish Development of Backend | TO-DO | | | |
| 6 | Finish Technical Paper | TO-DO | | | |
| 7 | Work on Deliverable 4 | TO-DO | | | |
| 8 | Complete Demo | TO-DO | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |

Stories Completed



RETROSPECTIVE





Sprint Backlog

What Went Well

- ▶ Because of Slack, we are able to communicate well be connected
- ▶ Teamwork helped in requirement gathering.
- ▶ We have listed down the technologies which will be used. Although we still need to learn the concepts in depth to be able to make a good product.



Sprint Backlog

What need improvements

- ▶ Meeting schedules have to be planned carefully.
- ▶ Team participation requires a slight improvement.



Sprint Backlog

Next Steps

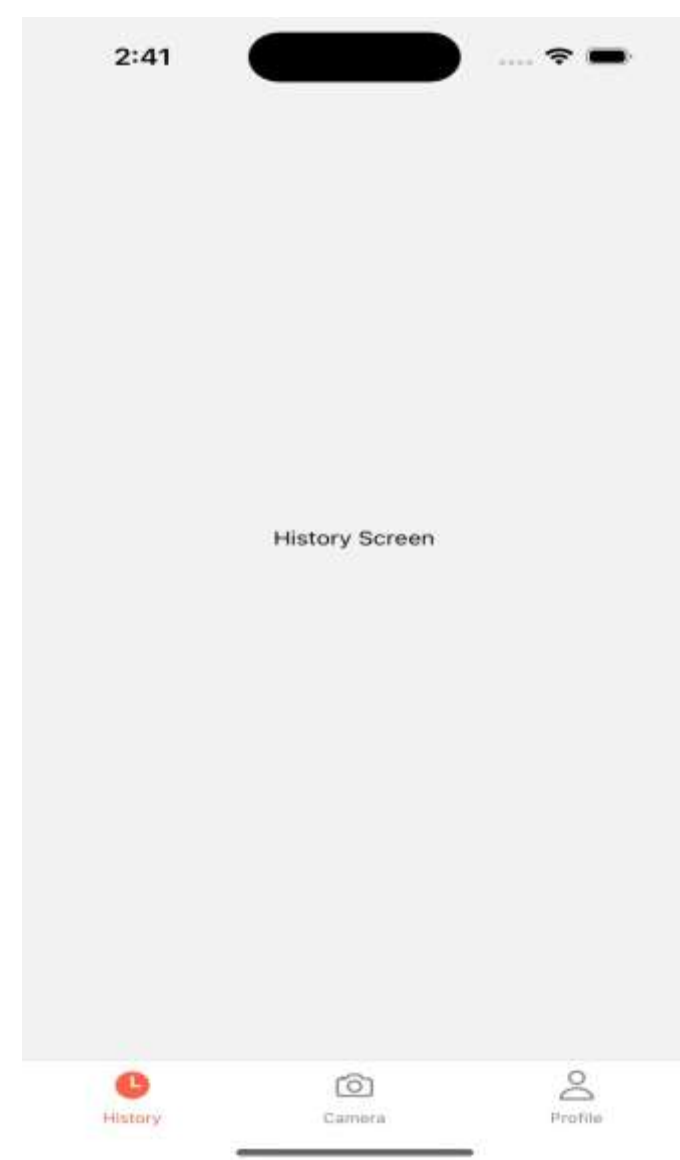
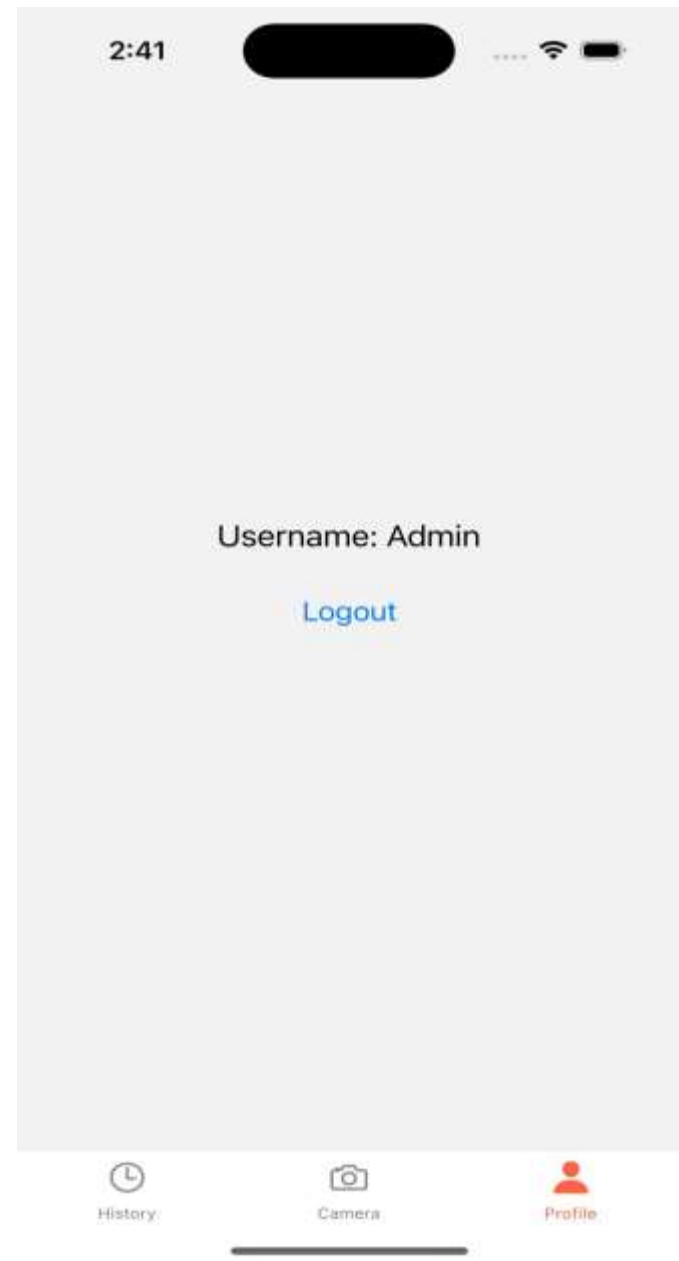
- ▶ Proper availability of time needs to be discussed.
- ▶ Get a clear idea of deadlines to finish the tasks as per schedule.
- ▶ Start working on the activities assigned.

Sprint 3 tasks

| Sprint 3 | |
|---|--------|
| Name | Status |
| Draft Technical Pager | TO-DO |
| Develop Registration Page | TO-DO |
| Develop Front-End HomePage | TO-DO |
| Develop Front-End Profile Page | TO-DO |
| Develop Front-End History Page | TO-DO |
| Develop Front- Recipe Page | TO-DO |
| Integrate Camera Feature to upload Images | TO-DO |
| Develop API to Retrieve History | TO-DO |
| Develop API to Retrieve Profile | TO-DO |
| Swagger API and Postman Integration | TO-DO |
| Adding DB Schema and Dummy Data | TO-DO |
| Demo | TO-DO |
| | |

Project Demo Sprint 2





Wiki page Link

https://github.com/upadristasarath/CS691_CapstoneProject_MealMate/wiki

The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic visual effect. The shapes are concentrated on the right side of the image, with some extending towards the left.

THANK YOU