

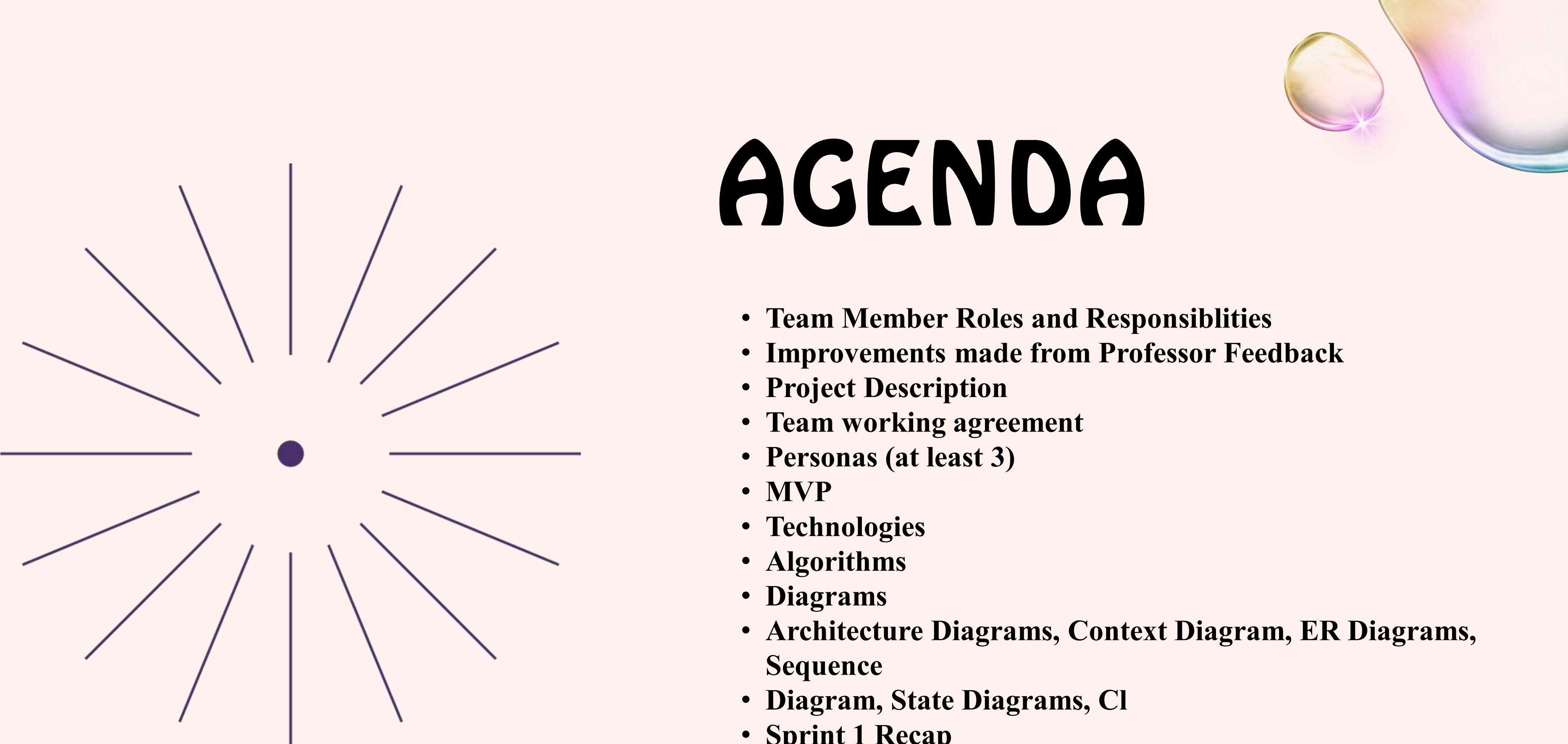


MEAL MATE



SUBJECT: CS691
Computer Science
Project 1





AGENDA

- **Team Member Roles and Responsibilities**
- **Improvements made from Professor Feedback**
- **Project Description**
- **Team working agreement**
- **Personas (at least 3)**
- **MVP**
- **Technologies**
- **Algorithms**
- **Diagrams**
- **Architecture Diagrams, Context Diagram, ER Diagrams, Sequence**
- **Diagram, State Diagrams, CI**
- **Sprint 1 Recap**
- **Product Backlog**



AGENDA

- **Stories or Tasks committed for this Sprint (Story and Acceptance Criteria)**
- **Sprint Summary**
- **Test Cases**
- **Stories completed and Stories not completed**
- **API usage in the Application**
- **Metrics**
- **Team velocity**
- **Burndown Charts**
- **Completed/Committed Ratio**
- **Retrospective**
- **Sprint Backlog (Stories planned for sprint 3)**
- **Project Demo (current sprint)**
- **Github link**

Team Member Roles



Sarath Upadrasta
Full Stack Developer
and Devops



Archana
Project Manager
Quality Analyst & Tester



Dharavath, Harika
Mobile Application
Developer and UI/UX

Team Member Roles



Pavan
Cloud Engineer and
Developer



Avhad, Dipali Vijay
Developer and tester



Kundan Sai Datta
Prasad, Gowru
Backend Developer
and DevOps

Improvements made from Professor's Feedback

- Consistency in Color Palette
- Uniform Placement of Titles
- Incorporating Diagram in Algorithm Slide
- Distinguishing between Task and Issue
- Inclusion of User Stories in Backlogs
- Enhancing Burndown Chart
- Audio Check before Presentation

Project Description

Project Name:	<u>MealMate</u>
Team Name:	<u>MealMate</u>
Project Description:	<p>Introducing "Meal Mate" – your new kitchen companion! Simplifying meal planning with smart technology. Just snap a pic of your veggies, and we'll handle the rest, suggesting recipes tailored to your ingredients. Say goodbye to cooking stress!</p> <p>For customers who want to know the recipes using vegetable images, the <u>MealMate</u> is a mobile app that provides recipes suggestions , unlike the traditional way where we had to <u>look into the youtube</u> channels or recipe books our solution provides the easy way to get the suggested recipes using the available vegetables at the home.</p>
Benefit Outcomes:	<ul style="list-style-type: none">• Users can effortlessly discover recipes with Meal Mate by simply snapping a pic of your veggies, eliminating the need for browsing YouTube or recipe books• Users can enjoy convenient access to personalized recipe suggestions based on available vegetables at home with Meal Mate, streamlining your cooking experience.
GitHub Wiki:	https://github.com/upadristasarath/CS691_CapstoneProject_MealMate



Team work Aggrement

Team Agreement

Participation :

- Attendance at all meetings is essential for effective teamwork.
- Regular absence may negatively impact team performance. Members should notify the team leader in advance if unable to attend and make arrangements to catch up before the next meeting.

Communication :

- Zoom meetings will be held weekly for meaningful discussions, fostering team cohesion. It's encouraged for members to keep their cameras on to enhance trust and transparency.
- For quick queries and urgent matters, a WhatsApp group will facilitate discussions on minute details and doubts.
- Google Docs will serve as the platform for sharing final deliverables, allowing collaborative editing by team members.
- Slack, our designated platform, offers various channels for different aspects of project management, ensuring efficient coordination among team members.

Work Division :

- Responsibilities should be evenly distributed among team members to ensure fairness.
- Completion of assigned tasks before the deadline is crucial to maintain team performance. In case of difficulties, members are encouraged to seek assistance from peers to meet deadlines collectively.

Meetings :|

- Weekly virtual meetings on Zoom will be held every Monday and Wednesday, with mandatory attendance unless under exceptional circumstances.
- The team leader will organize and conduct meetings, ensuring all members receive necessary details.
- Meeting minutes will be documented after each session to monitor project progress.
- Active participation in discussions and providing updates on individual progress are expected from all team members.

Team Members:

Sarath Upadrista - SU72648N

Pavan kumar Varkala - PV24664N

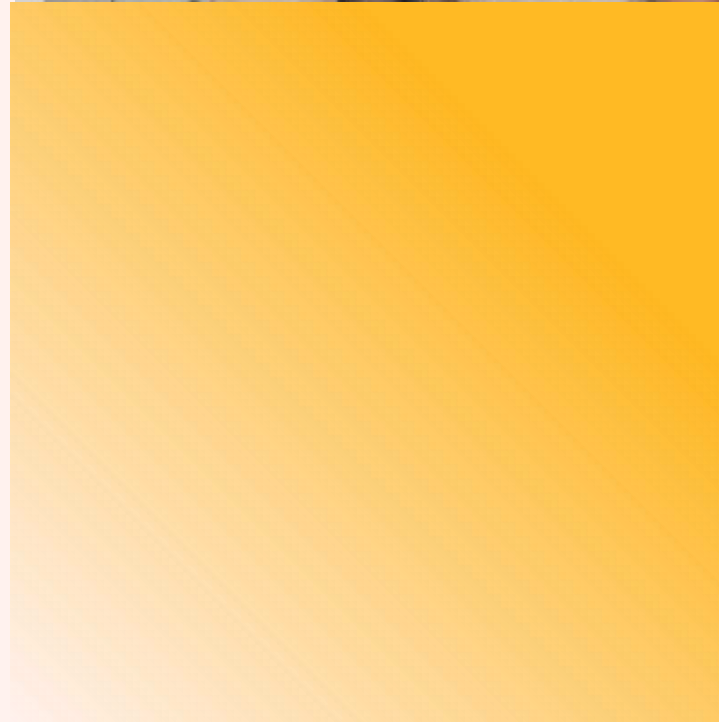
Dipali Avhad -DA55674N

Archana Barka - AB96045N

Gowru, Kundan Sai Datta Prasad - kg99457n

Dharavath, Harika - hd34397n

Personas





Sarah

Age: 24

Occupation: Marketing Manager

Location: Dew Drive

Income Range: \$45,000 - \$139,999

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.

GOALS

- Find convenient solution for meal planning
- Find tool to help her quickly and easily plan nutritious meals

MOTIVATIONS

- Comfort
- Convenience
- Price



FRUSTRATIONS

- Frustrated by the lack of time to plan and prepare meals
- often resorting to unhealthy takeout options due to her busy schedule

PERSONALITY

- Helpful
- Independent
- Resourceful

INTERESTS

- Enjoys Experiments with recipes
- Cooking
- maintaining a healthy lifestyle



Michael

Age: 25

Occupation: Recent College Graduate

Location: New York

Income Range: \$55,000 - \$139,999

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.

GOALS

- Improve cooking skills and become confident kitchen
- Find tool to prepare recies easily

MOTIVATIONS

- Comfort
- Convenience
- Price



FRUSTRATIONS

- Frustrated in lack of experience in the kitchen
- often struggles to come up with meal ideas and ends up ordering takeout instead

PERSONALITY

- Sportive
- Motivated
- Resourceful

INTERESTS

- interested to cook simple and nutritious meals to enjoy at home
- improve culinary skills



Emily

Age: 35
Occupation: Stay-at-Home Mom
Location: Florida
Income Range: \$55,000 - \$239,999

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.

GOALS

- Find convenient solution for meal planning
- Find tool to help her quickly and easily plan nutritious meals

MOTIVATIONS

- Comfort
- Convenience
- Price

FRUSTRATIONS

- frustrated by the challenge of finding new and exciting recipes
- feels guilty about wasting food

PERSONALITY

- Helpful
- Independent
- Resourceful

INTERESTS

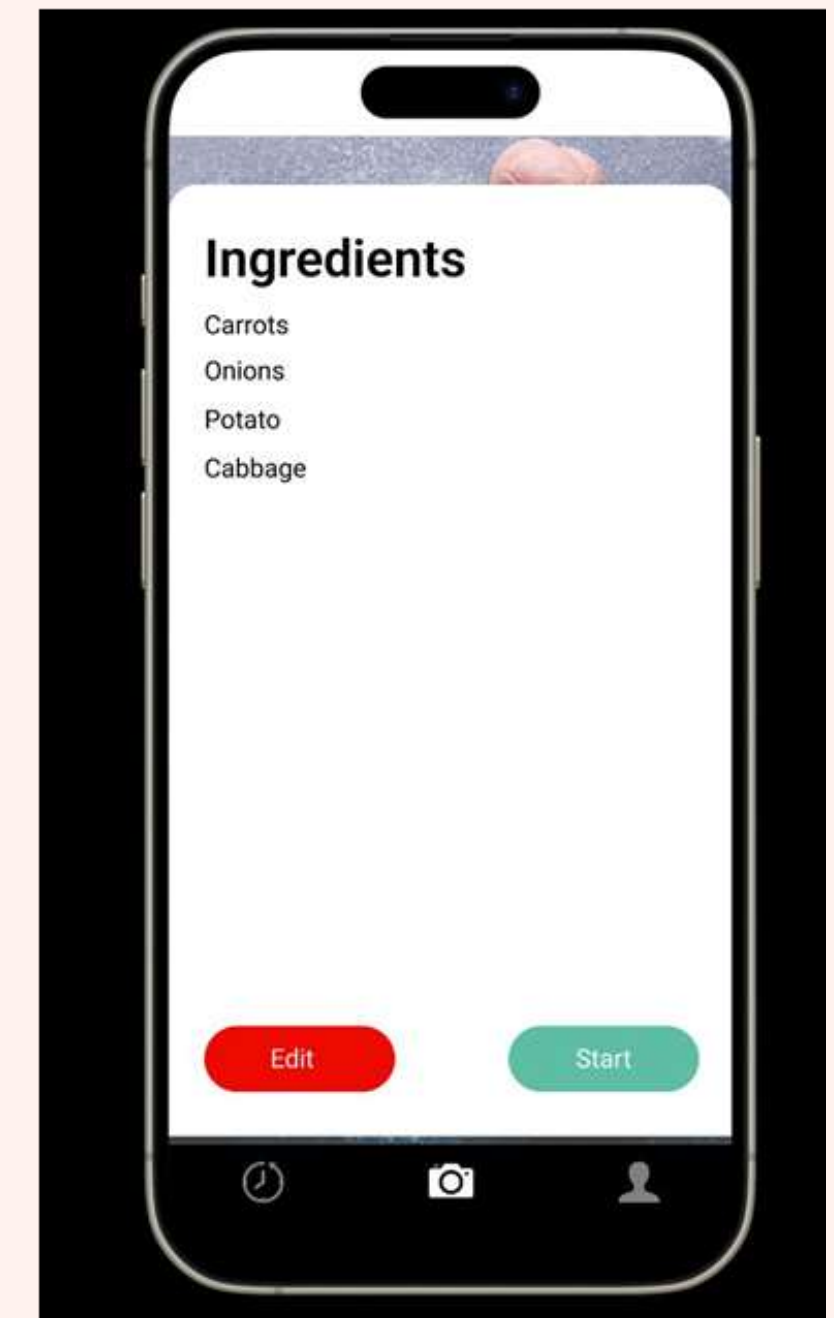
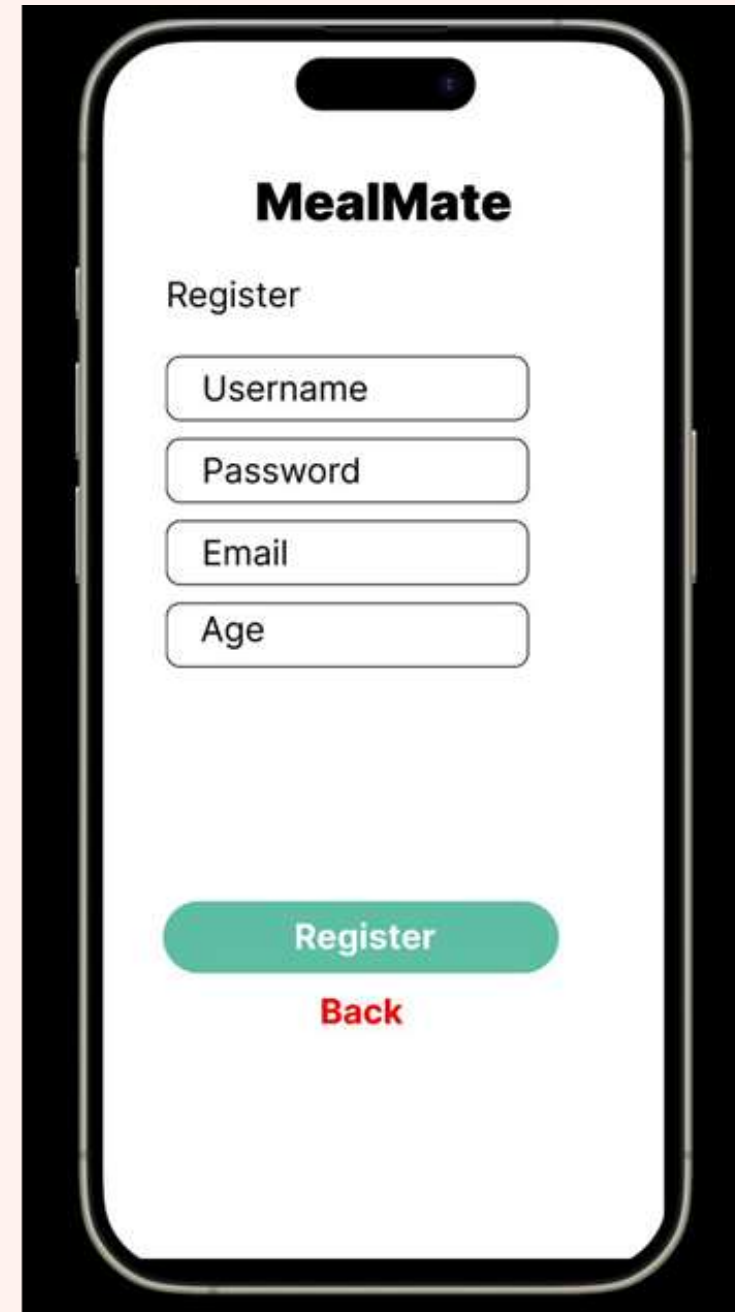
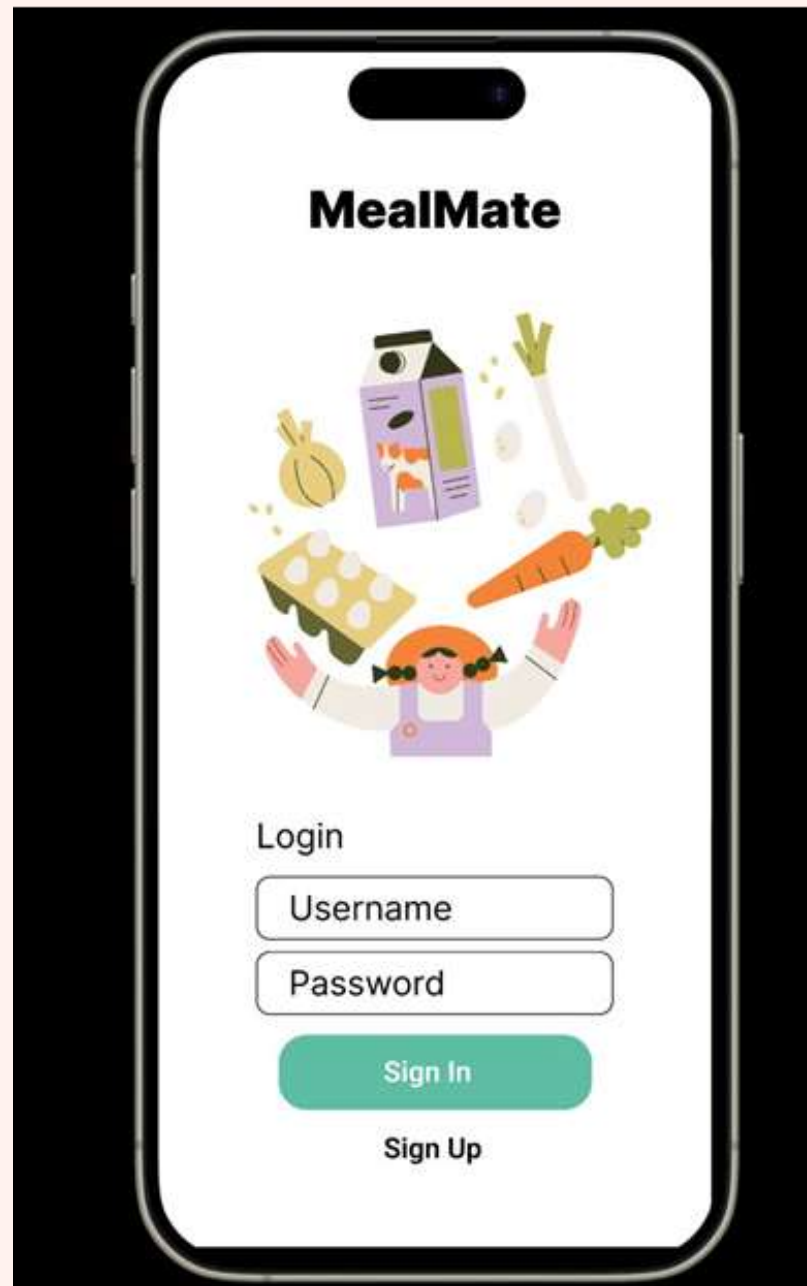
- passionate about cooking by finding new recipes
- interested in nutrition

Minimal Viable Product (MVP)

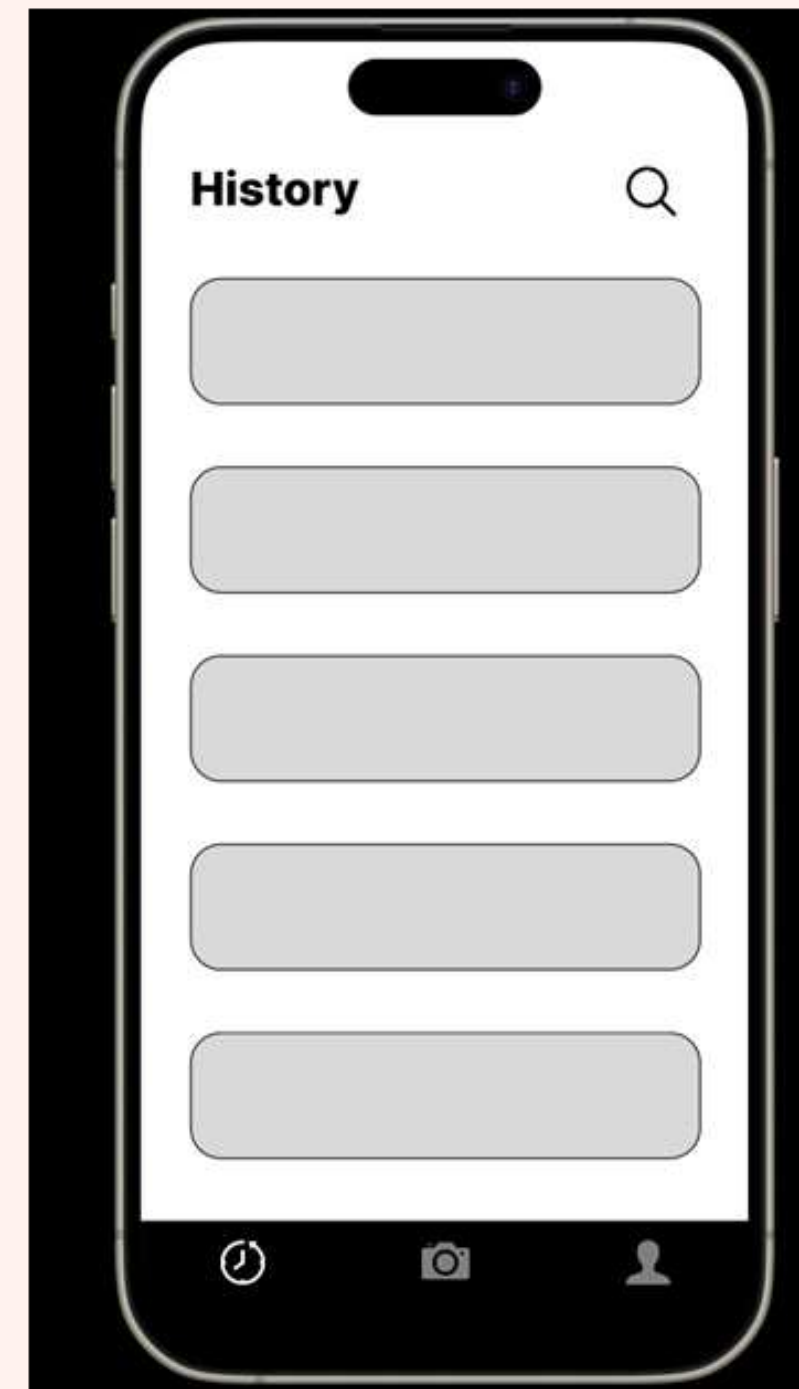
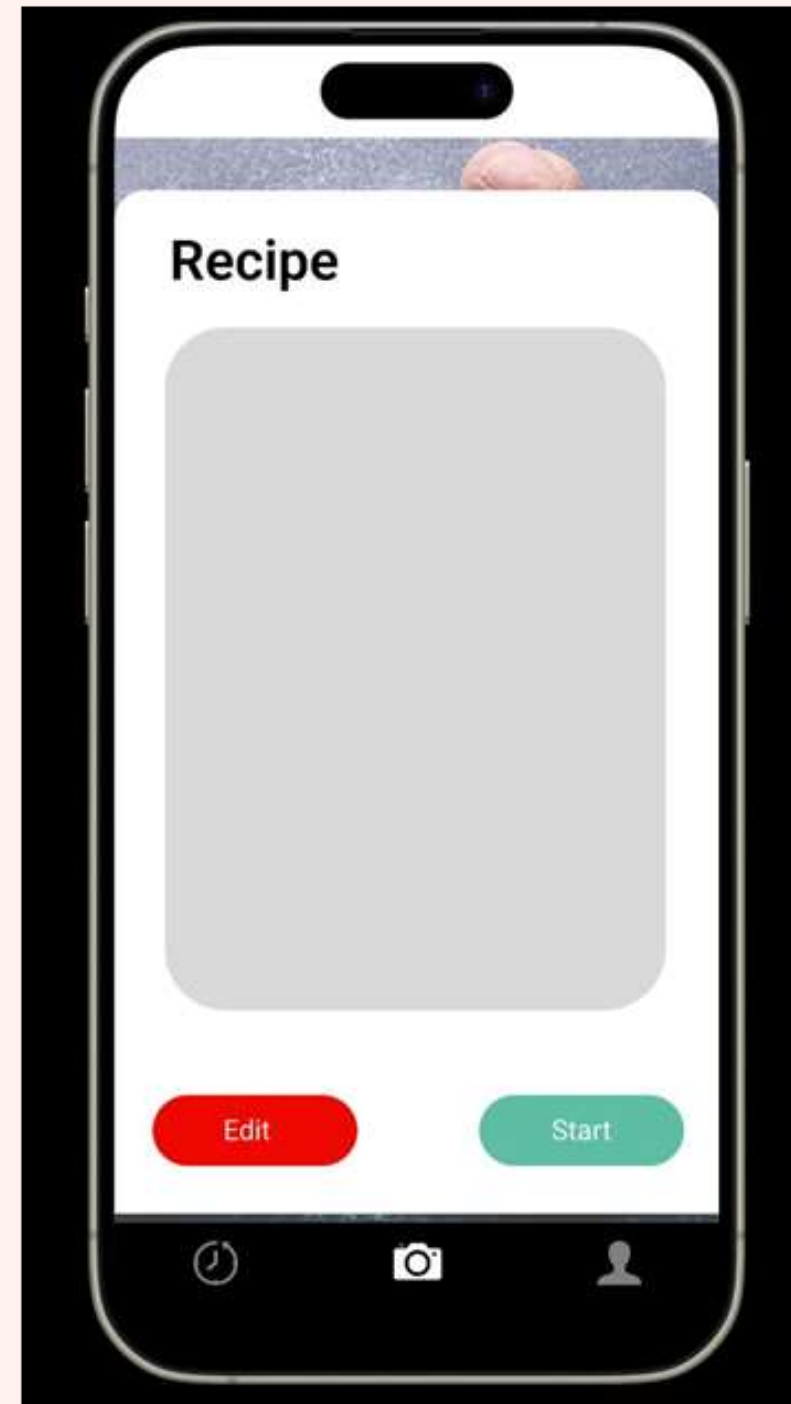
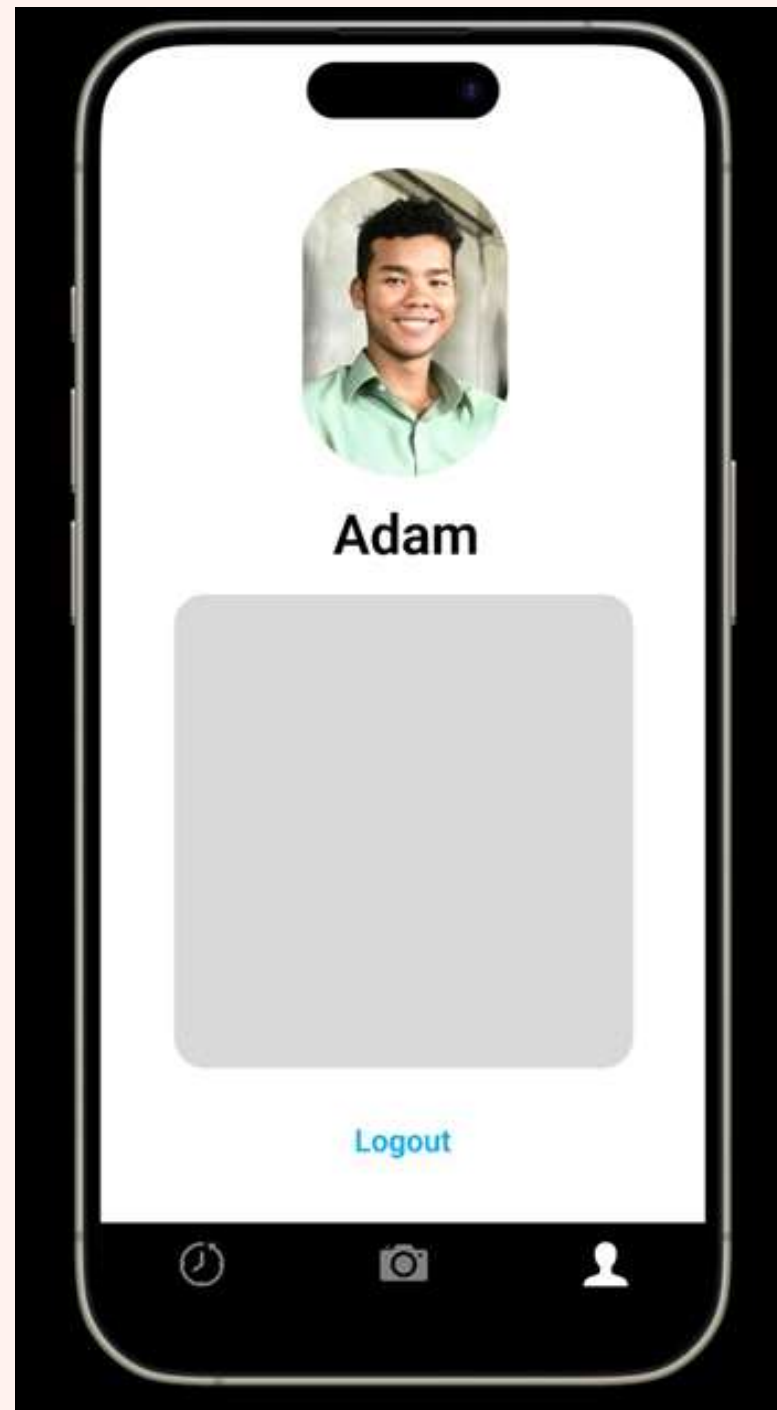
The following are the features that we are covering in our MVP:

- uLogin Screen
- uSign in
- uHome Page
- uCamera screen
- uProfile Screen
- uHistory

Minimal Viable Product (MVP)

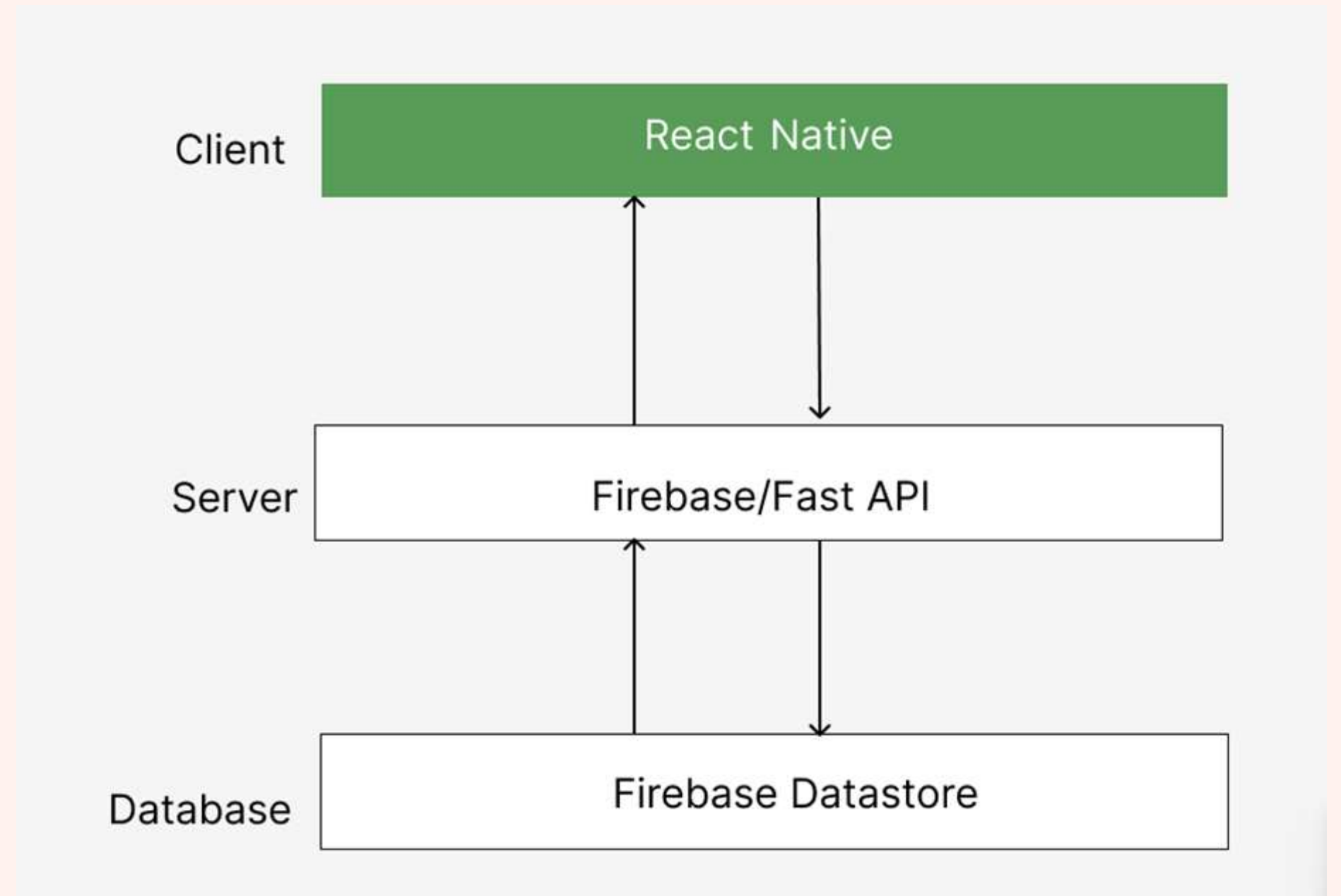


Minimal Viable Product (MVP)



Technologies

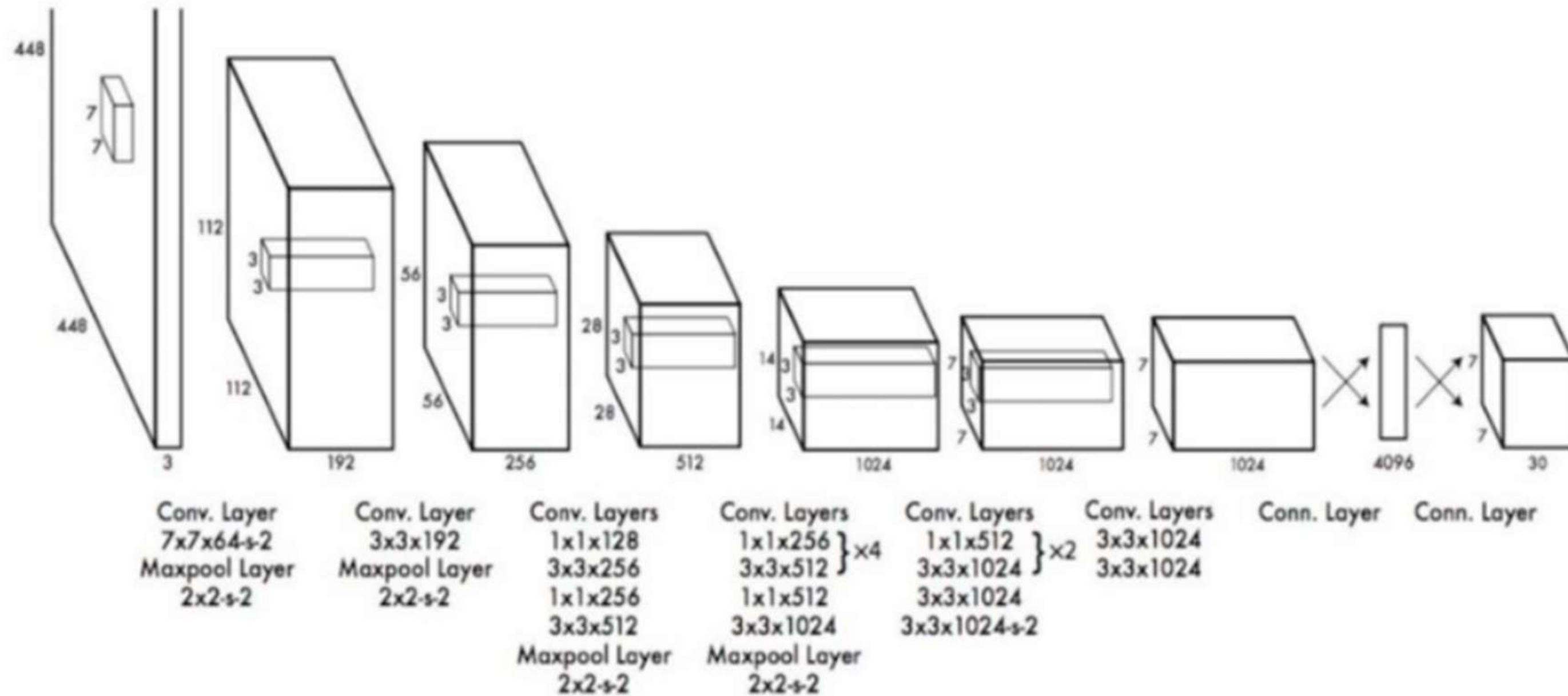
- React Native
- Python
- FastAPI
- Firebase Datastore
- ChatGPT API
- Git/Github
- JIRA



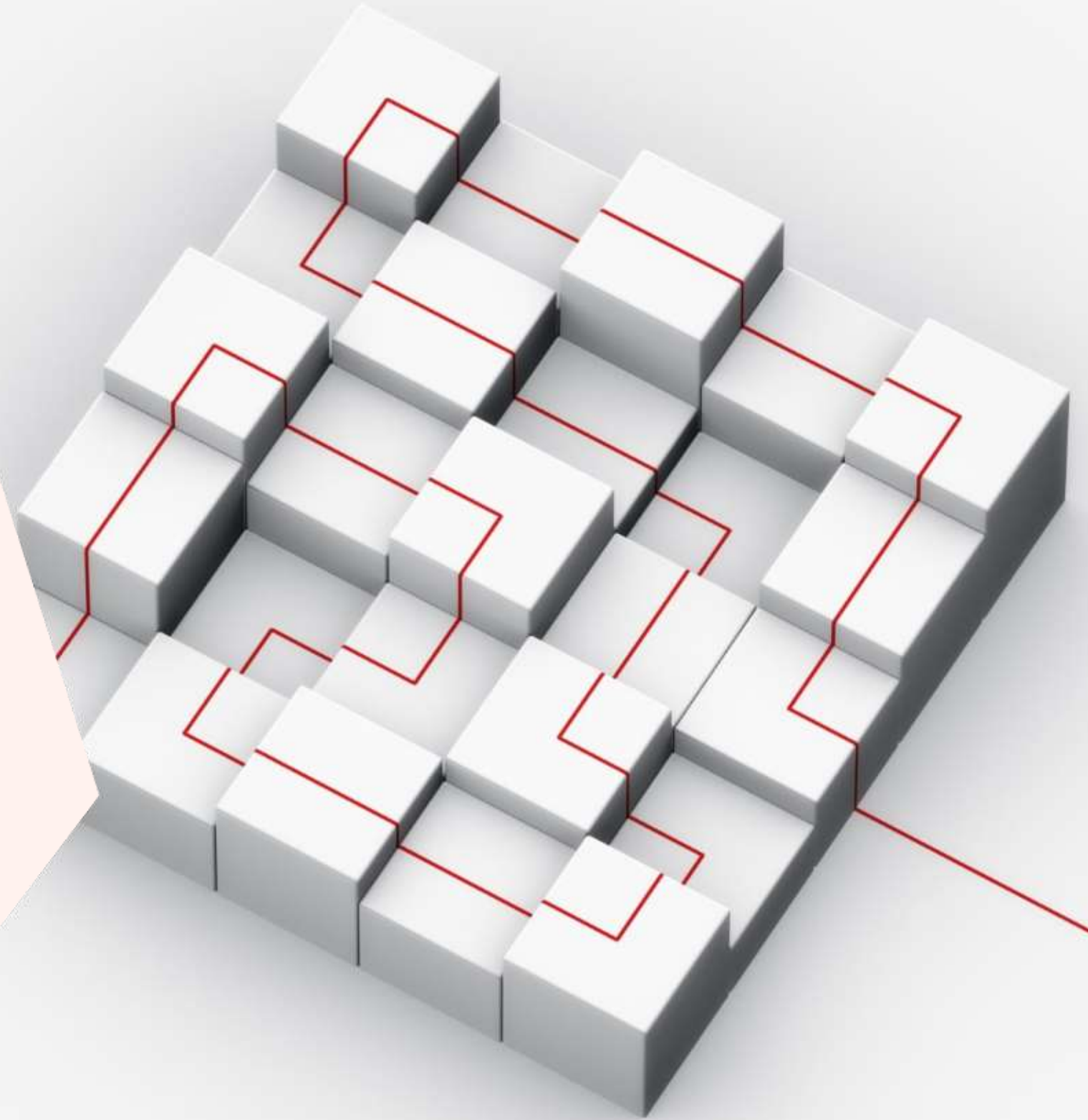
Algorithms

YOLOv7 (You Only Look Once version 7) is the latest version in a series of advanced deep learning models known for their impressive ability to detect objects in images and videos. This new version offers even better accuracy and speed, making it highly effective for real-time object detection. YOLOv7 stands out for its ability to quickly and accurately identify and classify multiple objects in photos or video feeds, which makes it a valuable tool for applications that need fast and reliable object detection, such as self-driving cars, security cameras, and industrial automation. Its enhanced performance, combined with its flexibility and ease of integration with existing systems, keeps YOLOv7 at the leading edge of object detection technology.

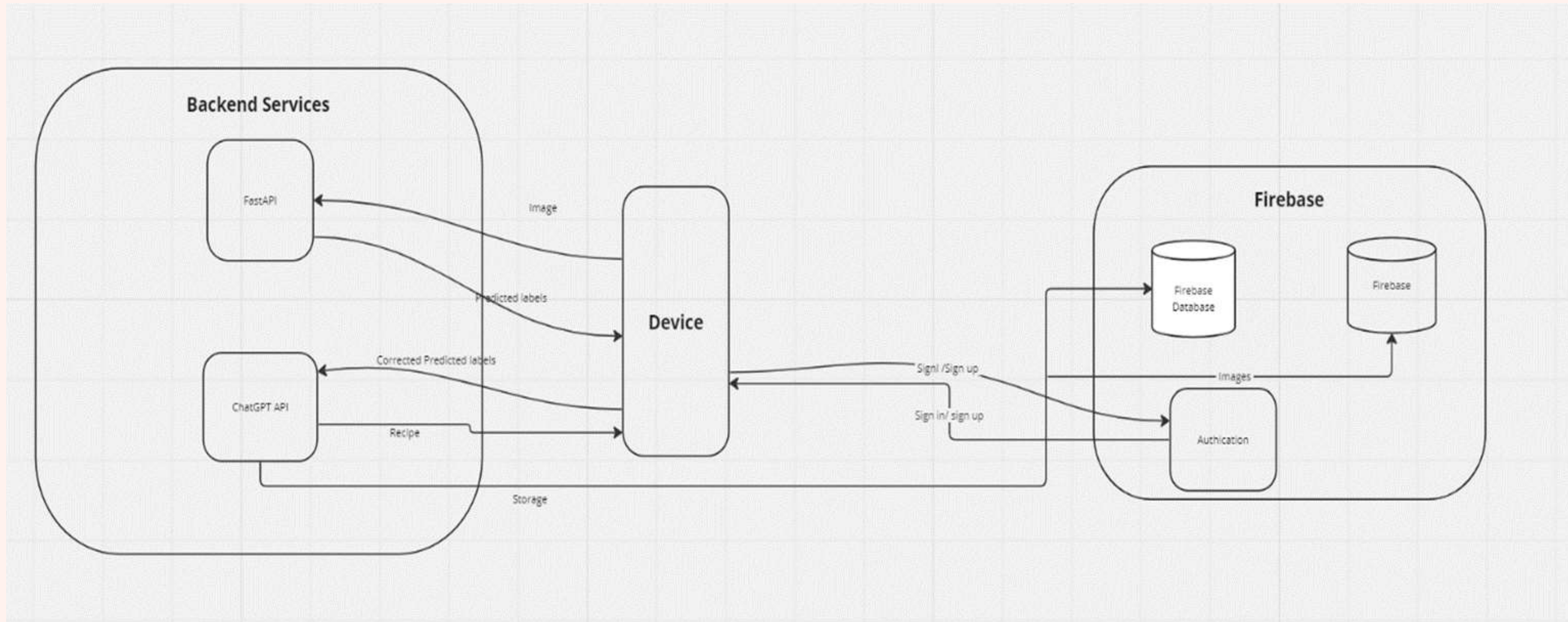
Algorithms



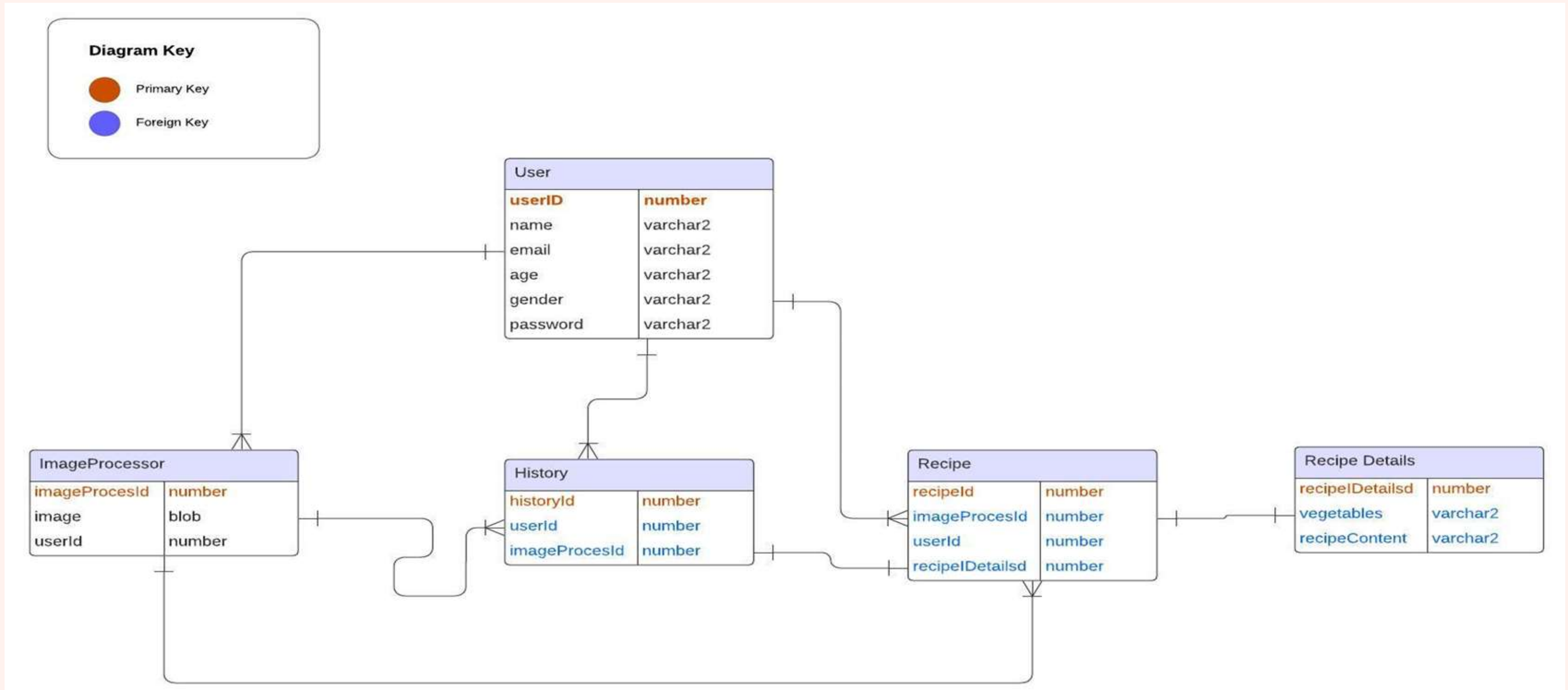
ARCHITECTURE DIAGRAM



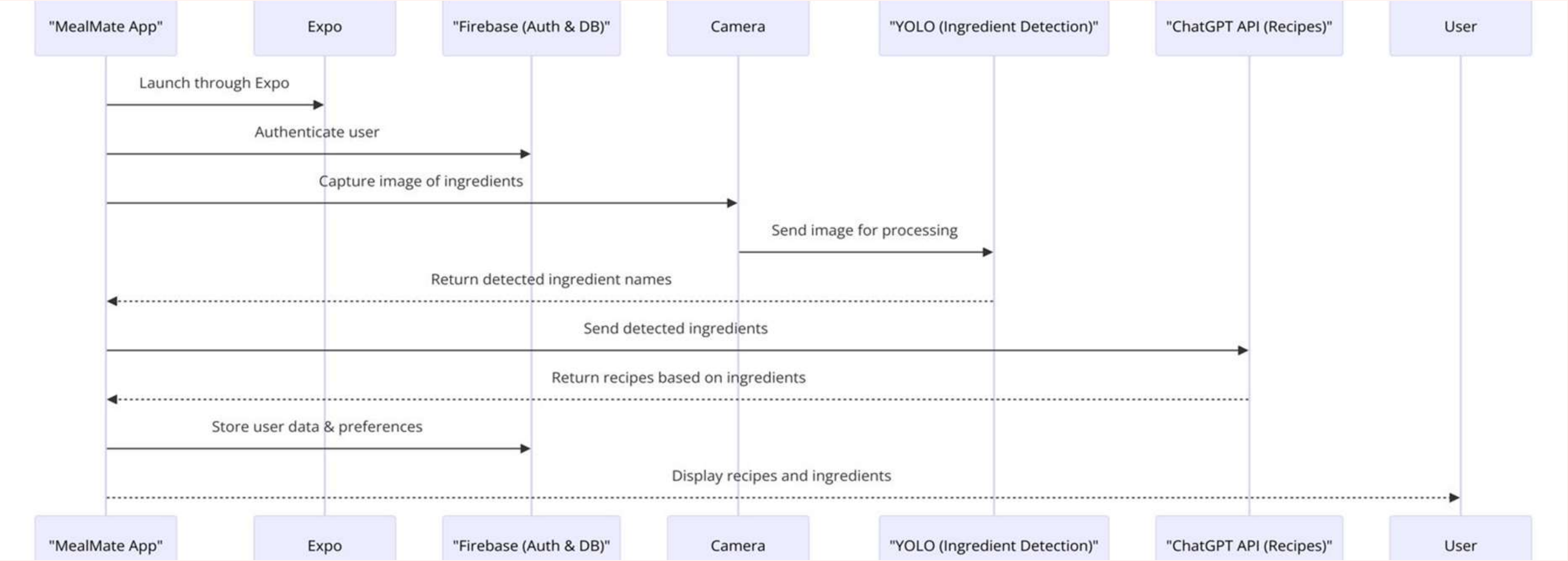
Conceptual Architecture Diagram



ER Diagram



Sequence Architecture Diagram



Sprint 1-3 Recap



Sprint 1

Issue Type	Key	Name
Task	ML-1	Defining the scope of the project
Task	ML-2	Establish Team roles
Task	ML-3	Finalizing the technologies
Task	ML-4	Setup Development tools (Github and JIRA)
Task	ML-5	Establish weekly meetings
Task	ML-6	Work on Deliverable 1

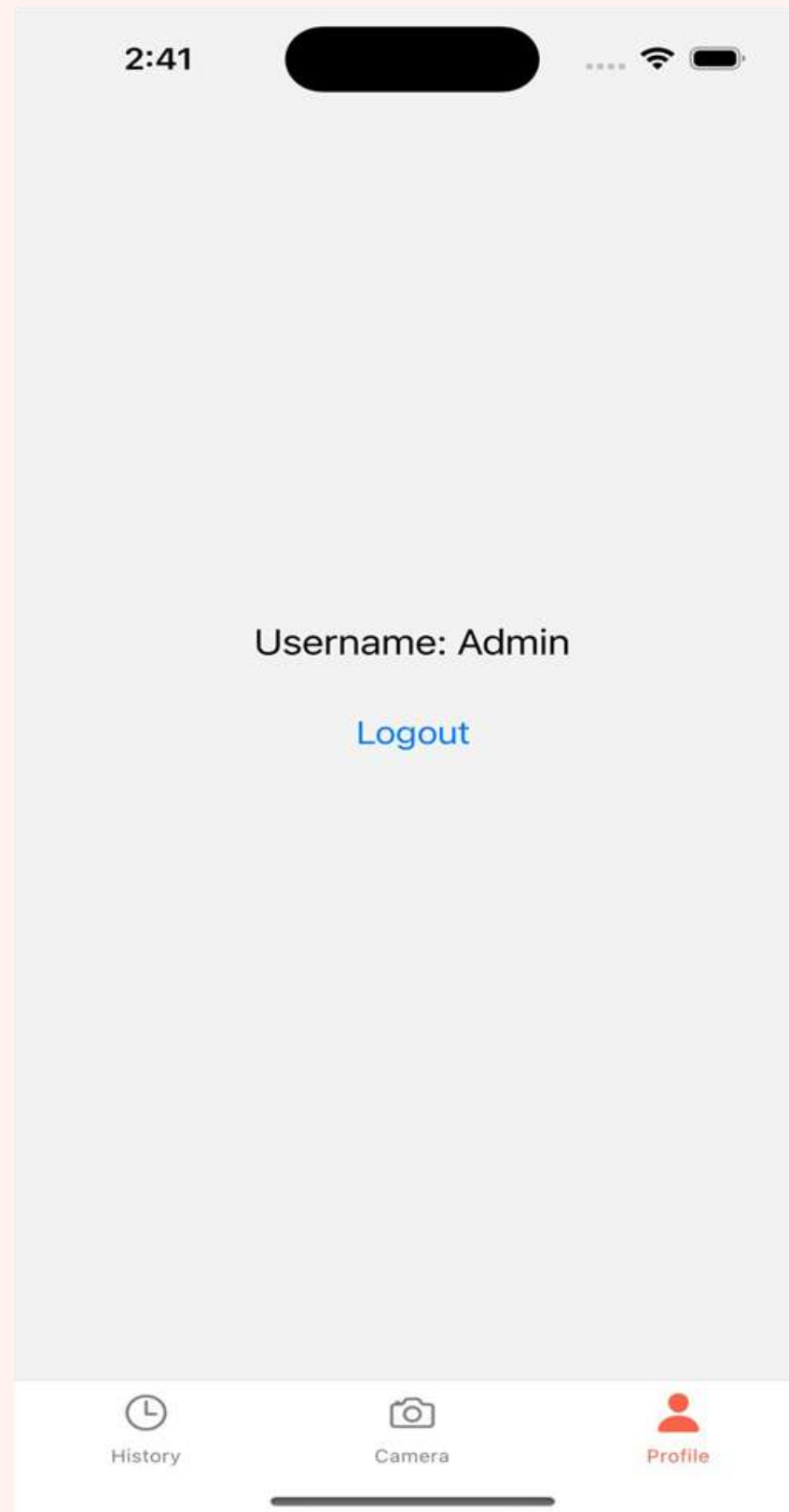
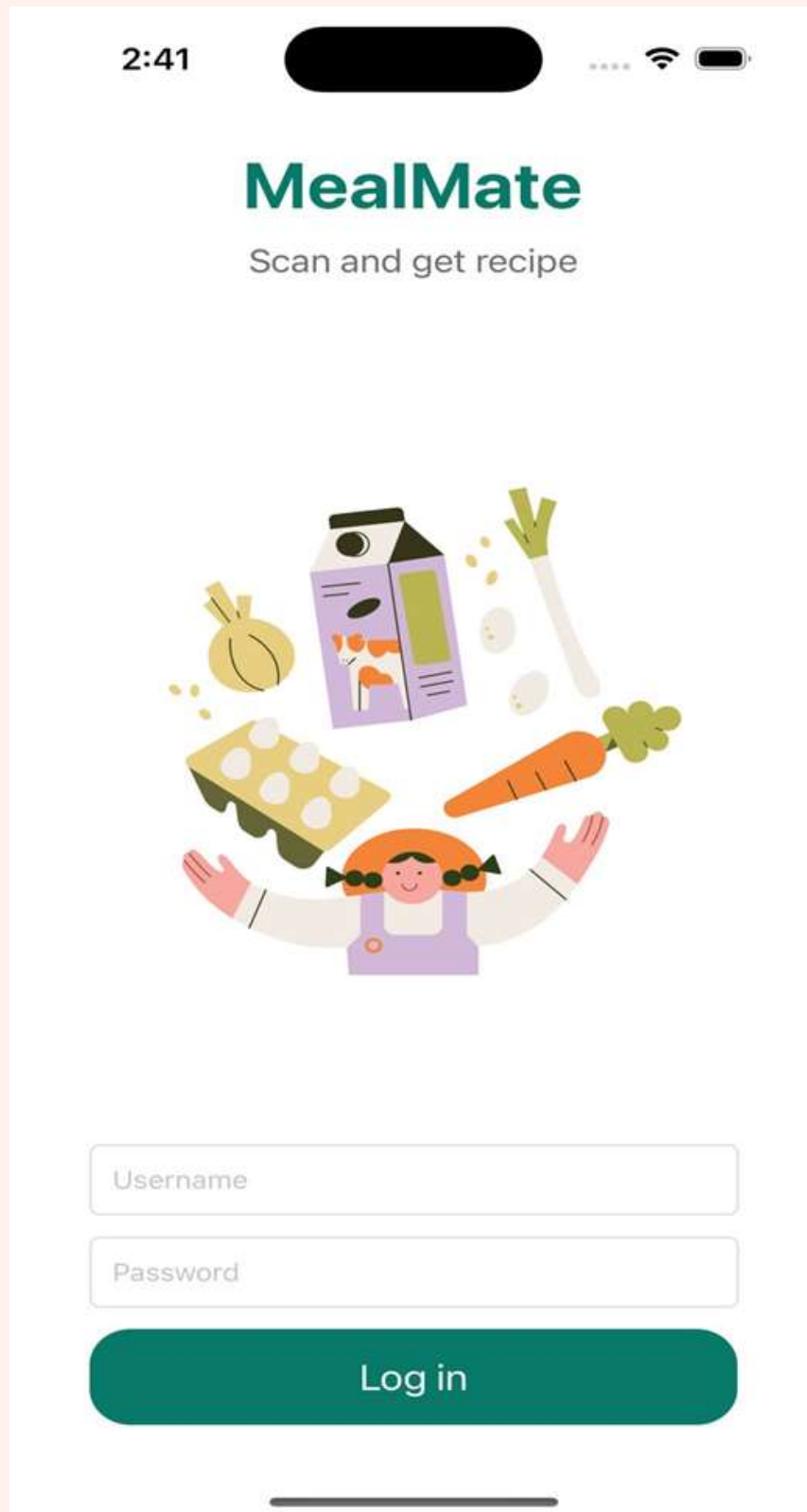
- In sprint 0 and 1 we choose the topic and our mobile application idea.
- We created our schedule, and team working agreement and assigned each team member their roles.
- We also set up our development tools which we used for 4 sprints to create, maintain and update our web application and communication.

Sprint 2

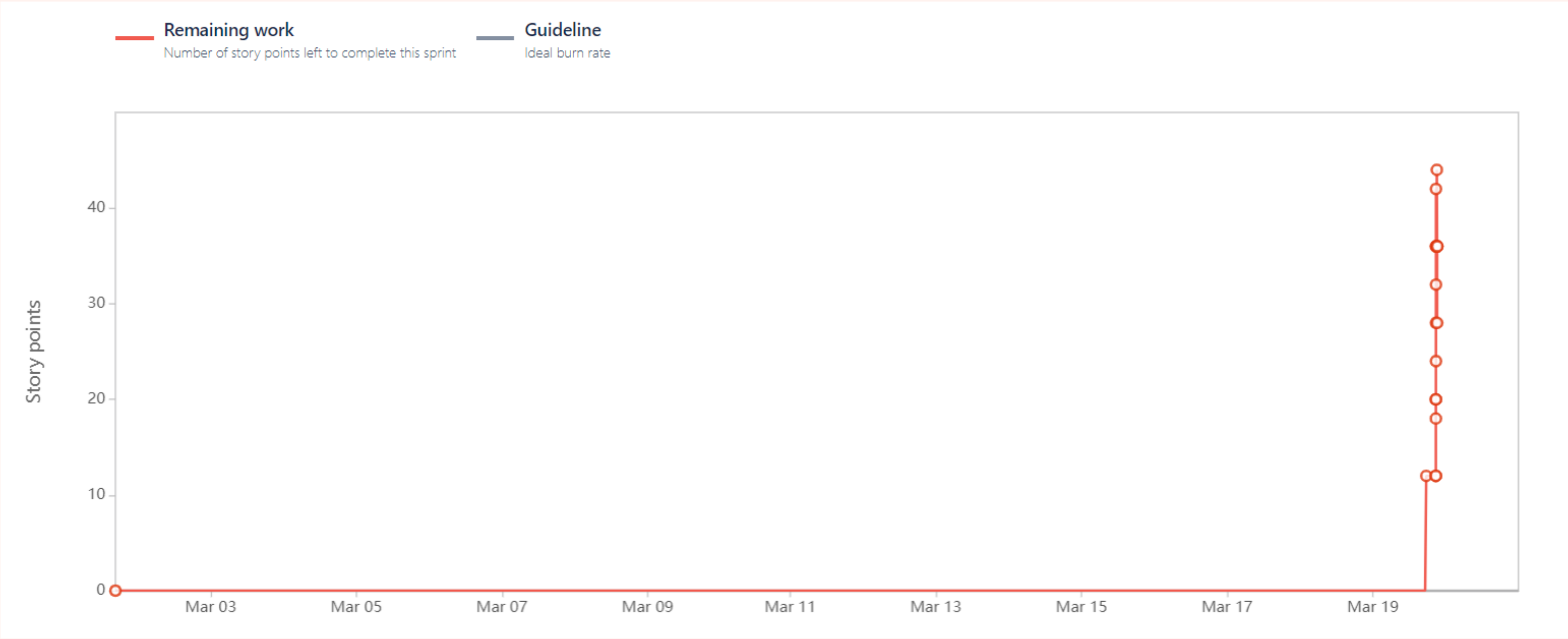
Issue Type	Key	Name
Task	ML-10	As a customer, I want to be able to create an account, so that I can access the Meal Mate application
Task	ML-11	As a Customer, I want to be able to login to the Meal Mate App, so that I can view my Profile information
Task	ML-12	As a Customer, I want to be able to open the Profile screen, so that I can view and edit his profile
Task	ML-34	As a Customer, I want to be able to open the Camera screen, so that I can Open the camera
Task	ML-33	As a Customer, I want to be able to open the History screen, so that I can view the history

- In sprint 2 we have started the project with Minimum Viable Product (MVP)
- We have used Figma to design the MVP screens

Sprint 2



Sprint 2 Burndown chart

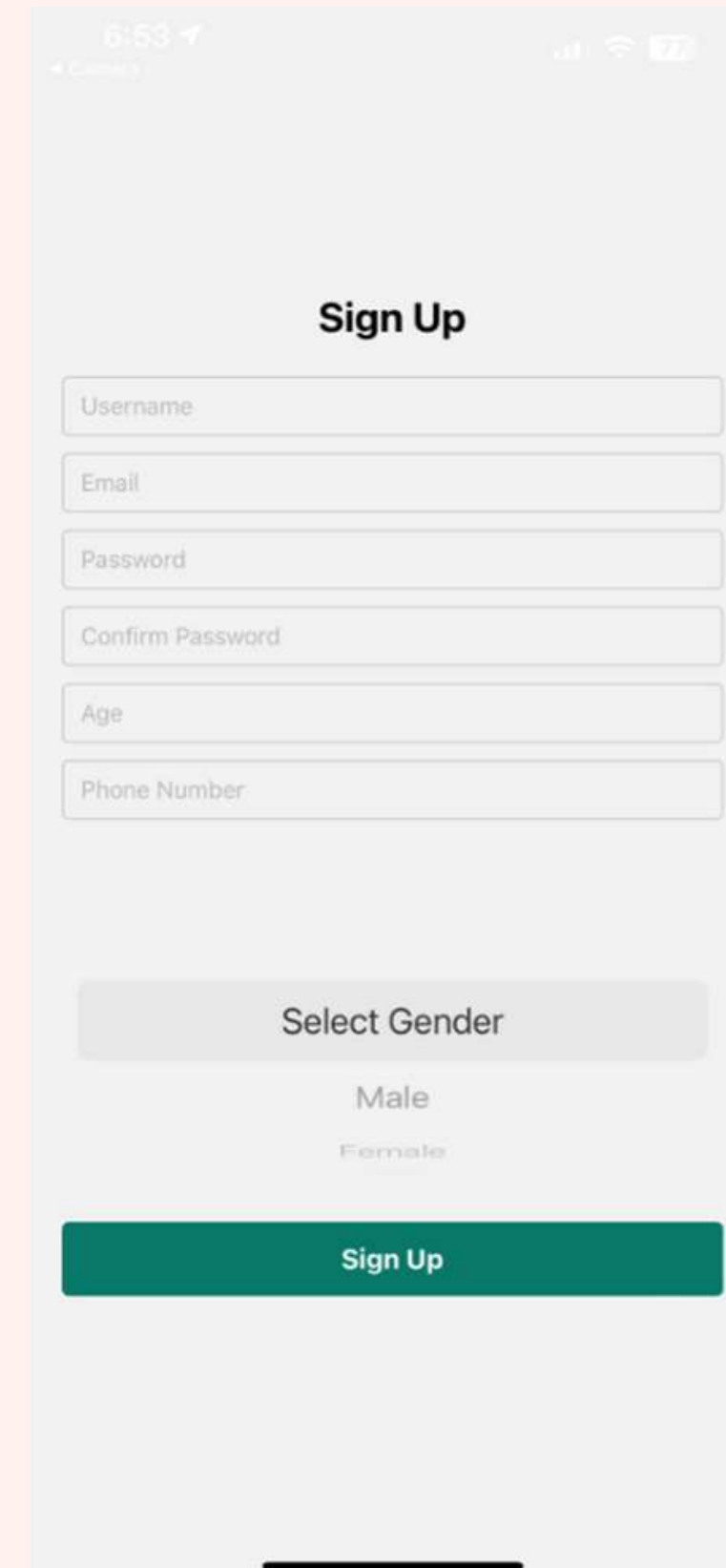
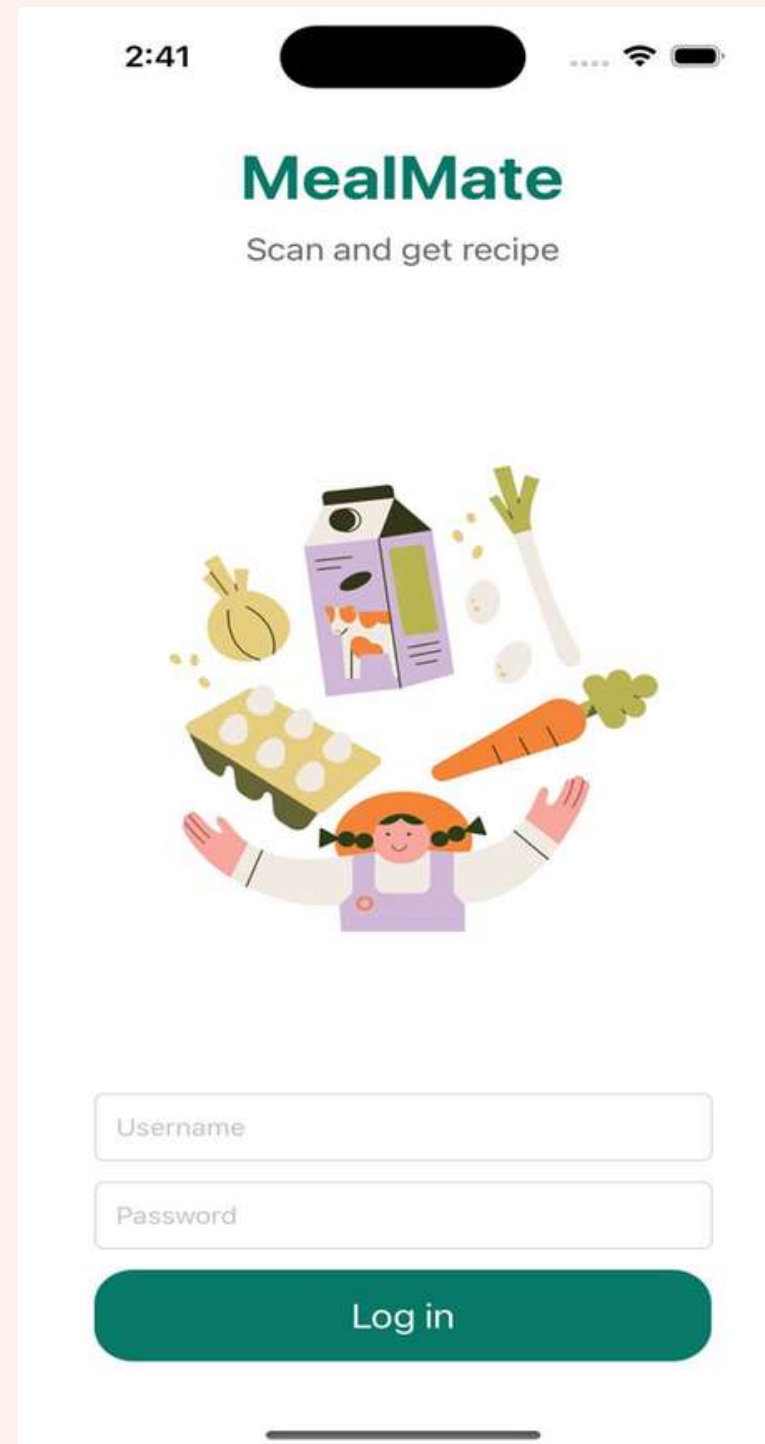


Sprint 3

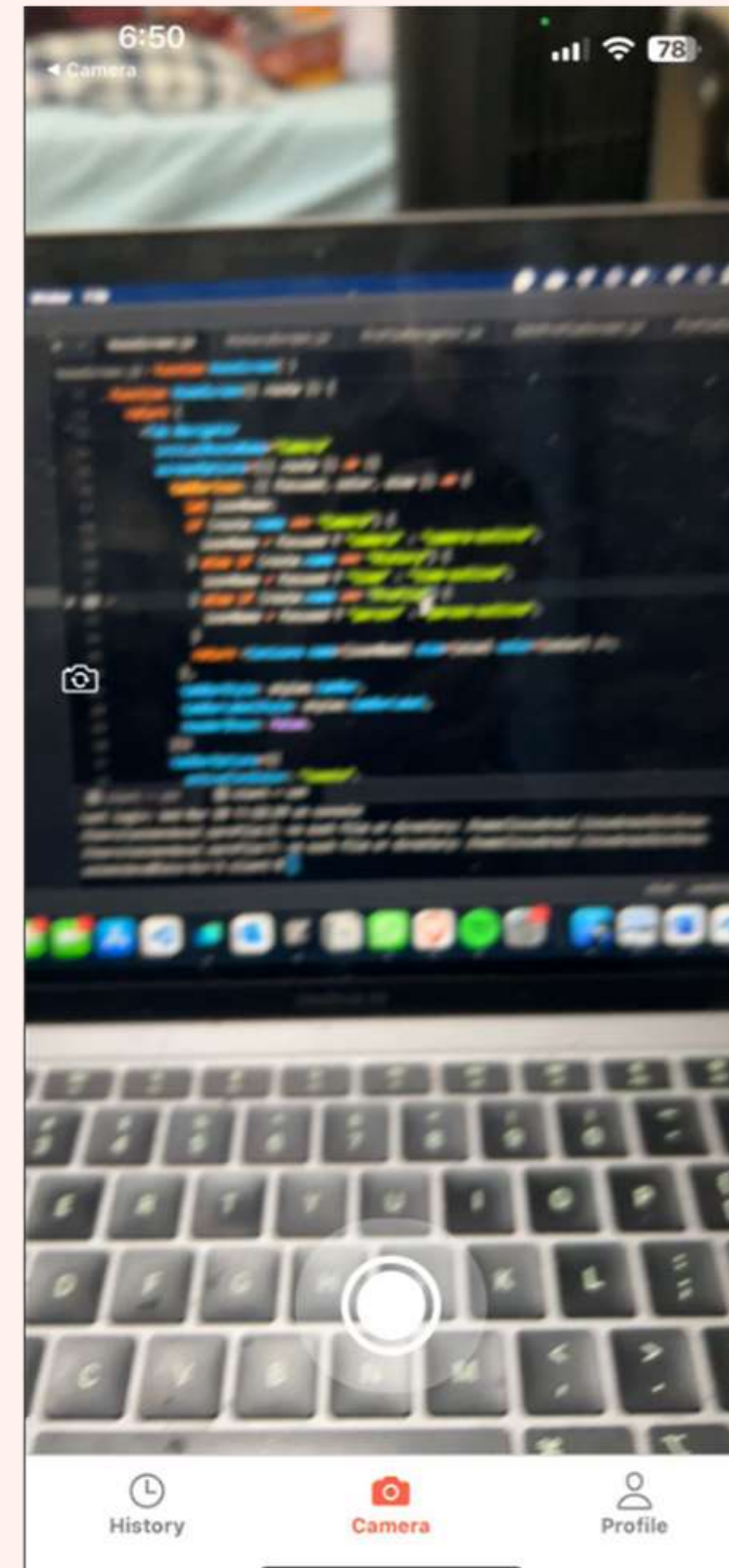
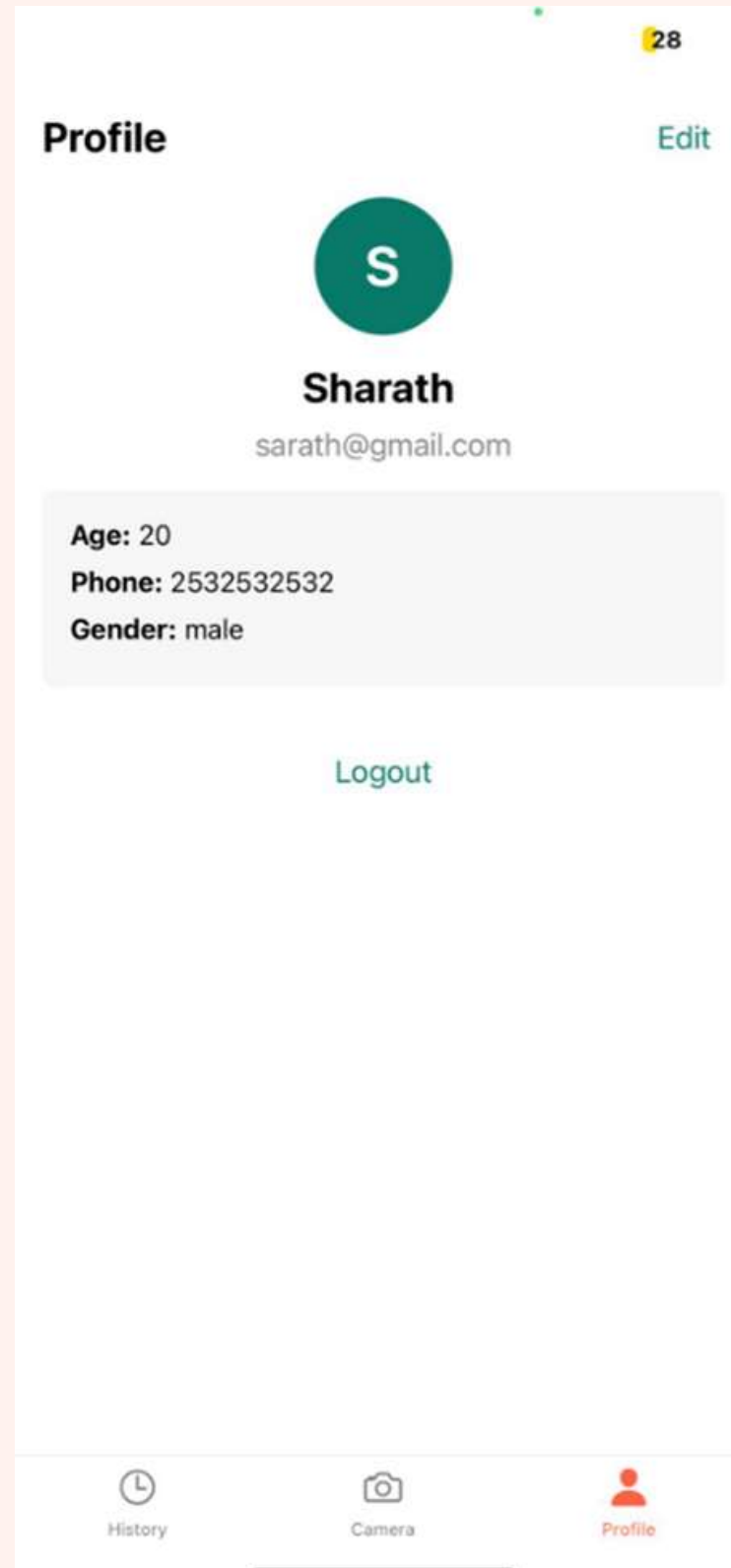
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Task	ML-34	As a Customer, I want to be able to open the Camera screen, so that I can Open the camera
Task	ML-33	As a Customer, I want to be able to open the History screen, so that I can view the history

- In sprint 3 we created Registration page by integrating it with Firebase
- We have created Profile screen, where user can update the Phone number
- We have created history screen by listing down the history items

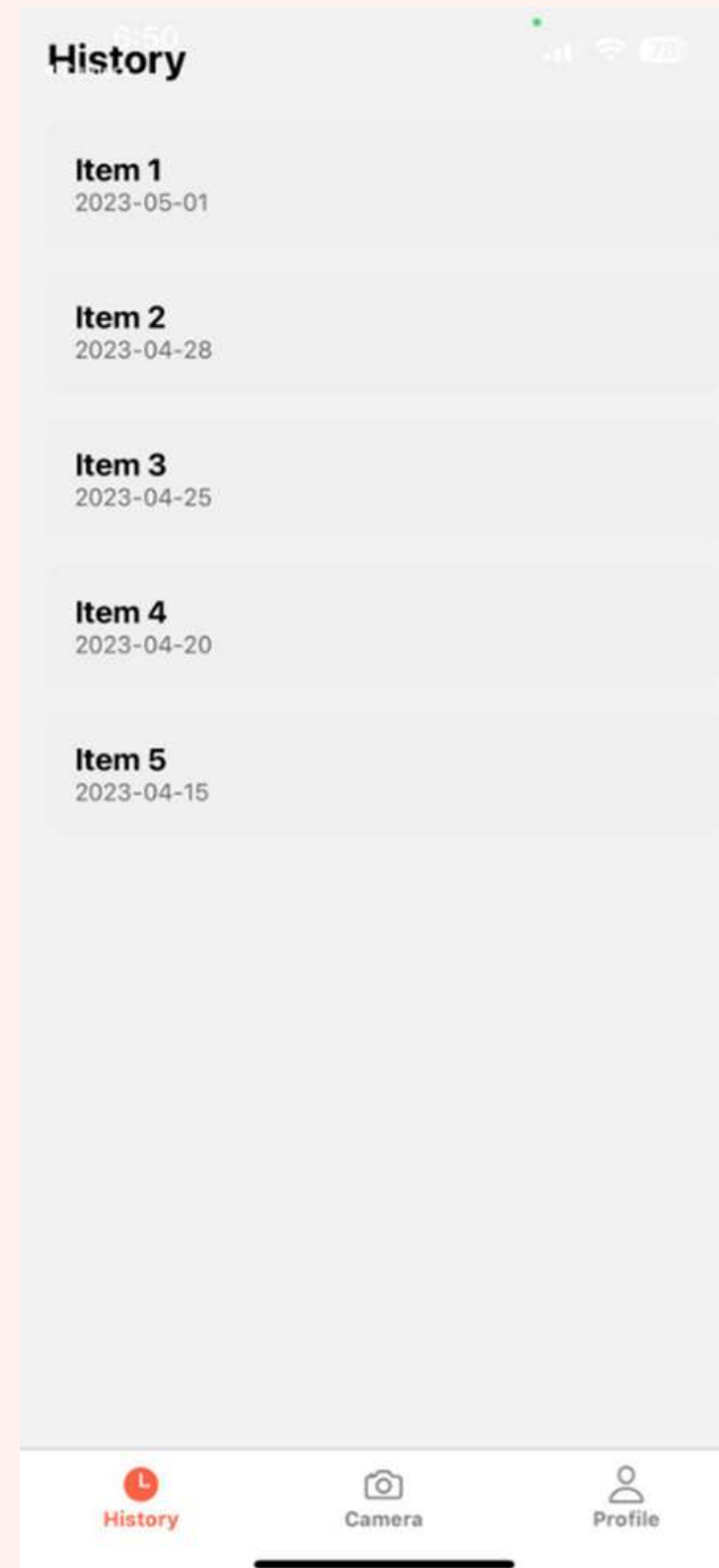
Sprint 3



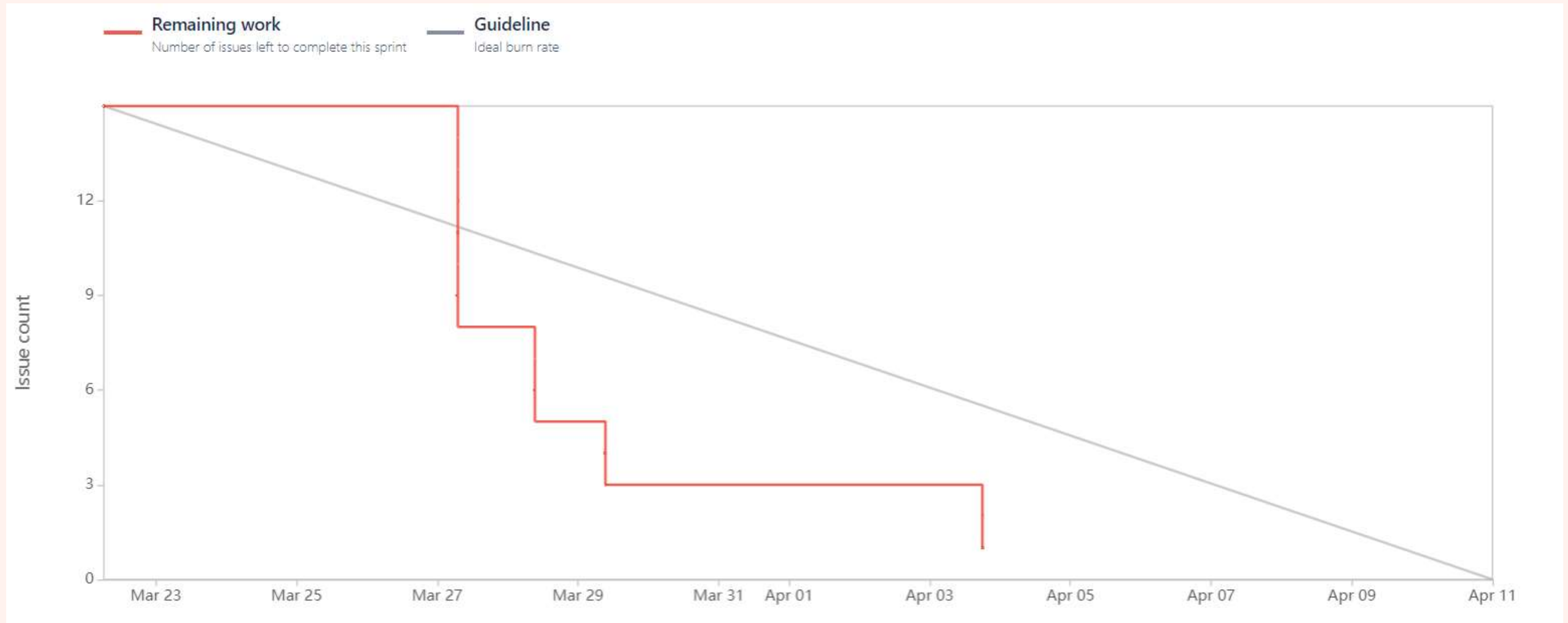
Sprint 3



Sprint 3



Sprint 3 Burndown chart



Improvements Made from Professor Feedback from Sprint 1 - 3

- **Added Personas Screen, which we missed in Sprint 1**
- **Removed “How could we do things differently” section from Retrospective slide in Sprint 1**
- **The slides order is followed as per the checklist in Sprint 2**
- **We linked the test cases with User Stories ID’s, that link them with the corresponding stories**
- **The user stories format was changed to “As a [user], I want [functionality], “so that” [benefit from it]**

Sprint 3 Backlog

Issue Type	Key	Name
Task	ML-10	Smoke Testing
Task	ML-38	Integration Testing
Task	ML-47	Improve the performance of the APP
Task	ML-34	API Document updation
Task	ML-39	Improving the User Interface (Front End)

ACCEPTANCE CRITERIA AND USER STORIES

User Stories And Acceptance Criteria	
User Story ID	Summary
ML-47	As a signed-in Customer I want to be able to take the picture in Camera screen So that I can see the list of vegetables
	Scenario: Customer wants to see the recepie suggestions "Given I'm in the role of Customer When I open the camera page Then the app should allow me to take the picture and list the vegetables

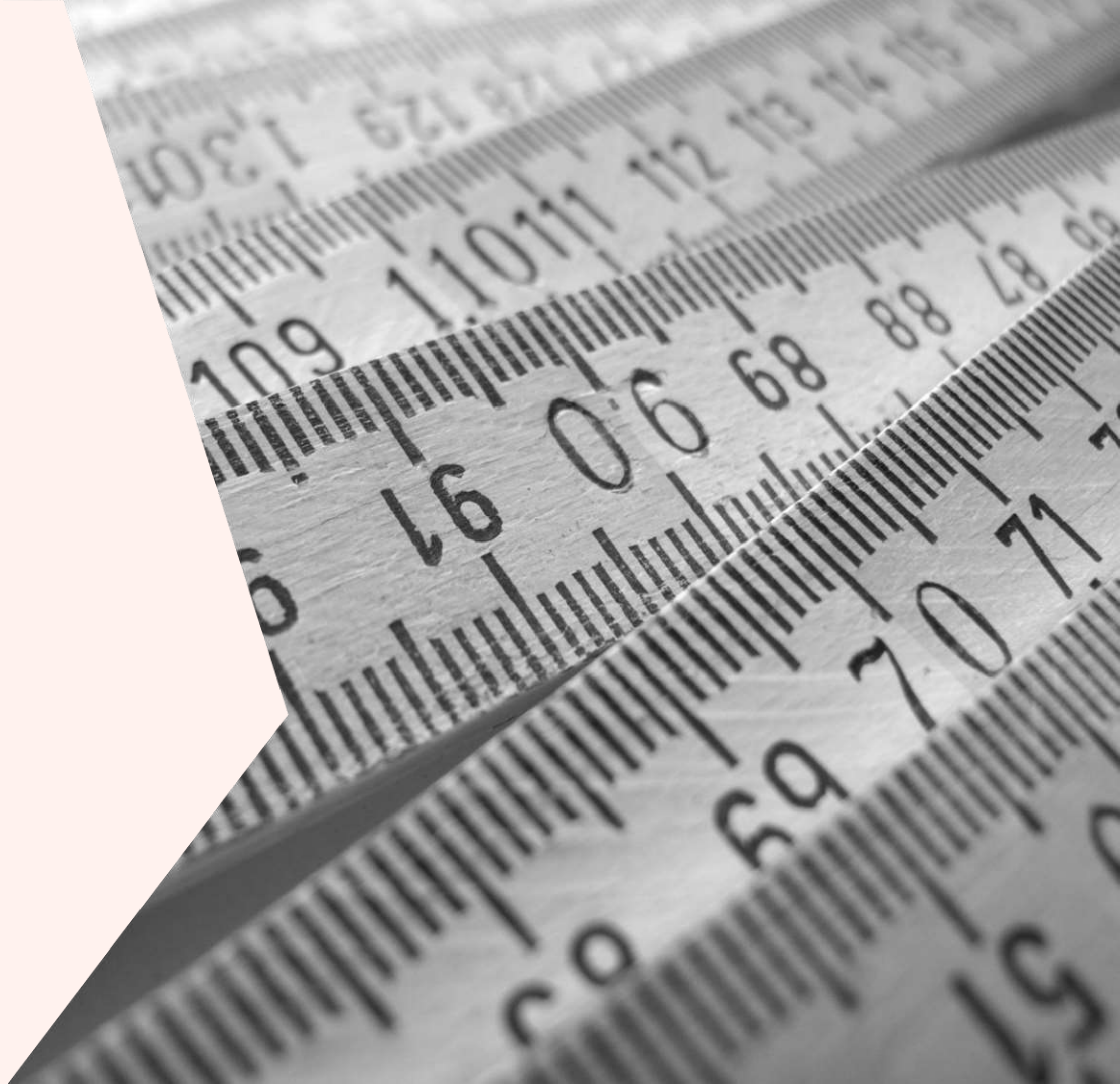
Test Cases

				Test Cases				
Test case id	Unit to test	Assumptions	Test data	Steps to be executed	Expected Results	Actual Res	Pass/Fail	Comment
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 char	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	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 vegerables 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.			

Stories/Task Completed And Not Completed

Issue Type	Key	Name	Status
Task	ML-10	Smoke Testing	Done
Task	ML-38	Integration Testing	Done
Task	ML-47	Improve the performance of the APP	Done
Task	ML-34	API Document updation	Done
Task	ML-39	Improving the User Interface (Front End)	Done

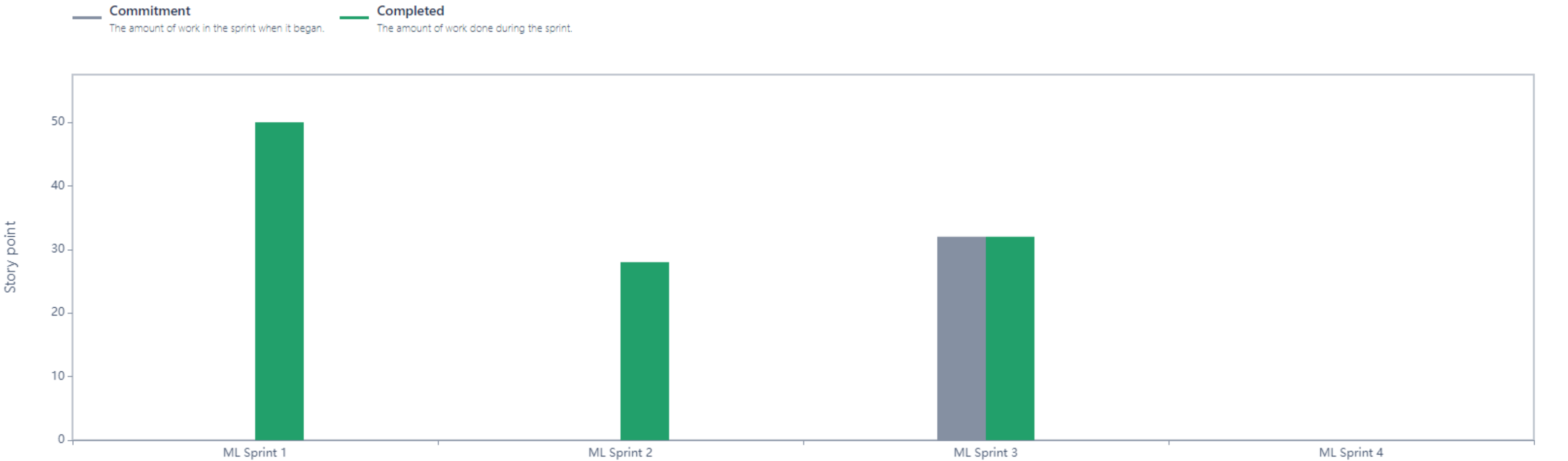
Metrics



Team Members Velocity report

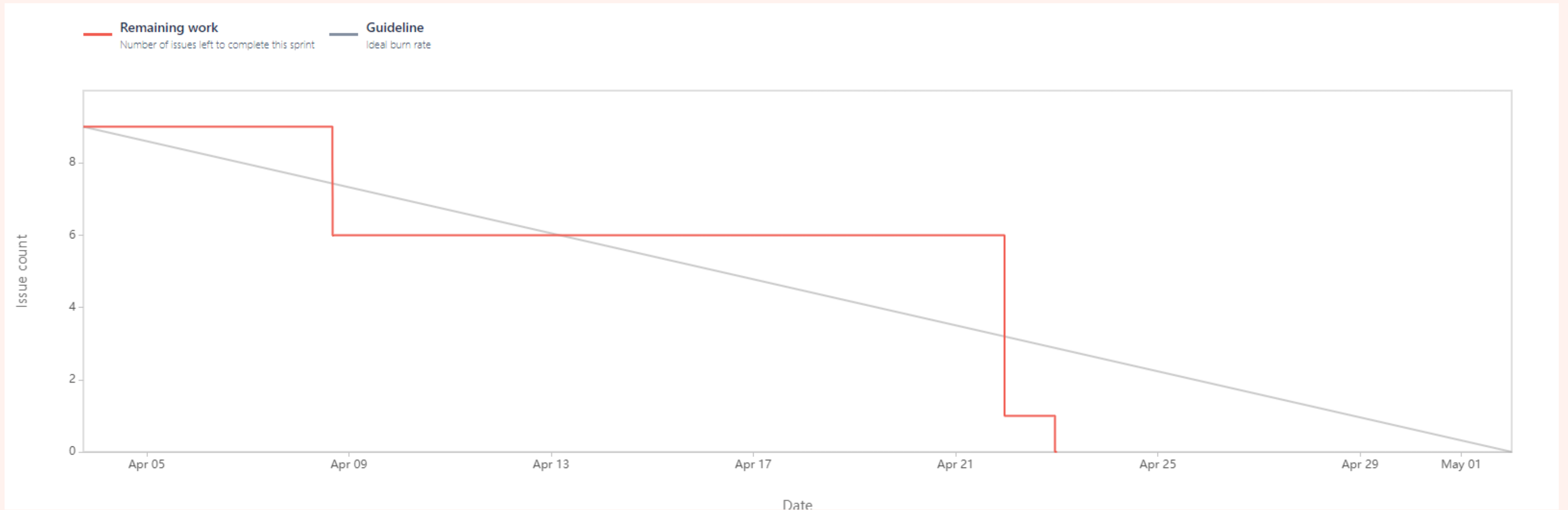
Velocity report

[How to read this report](#)

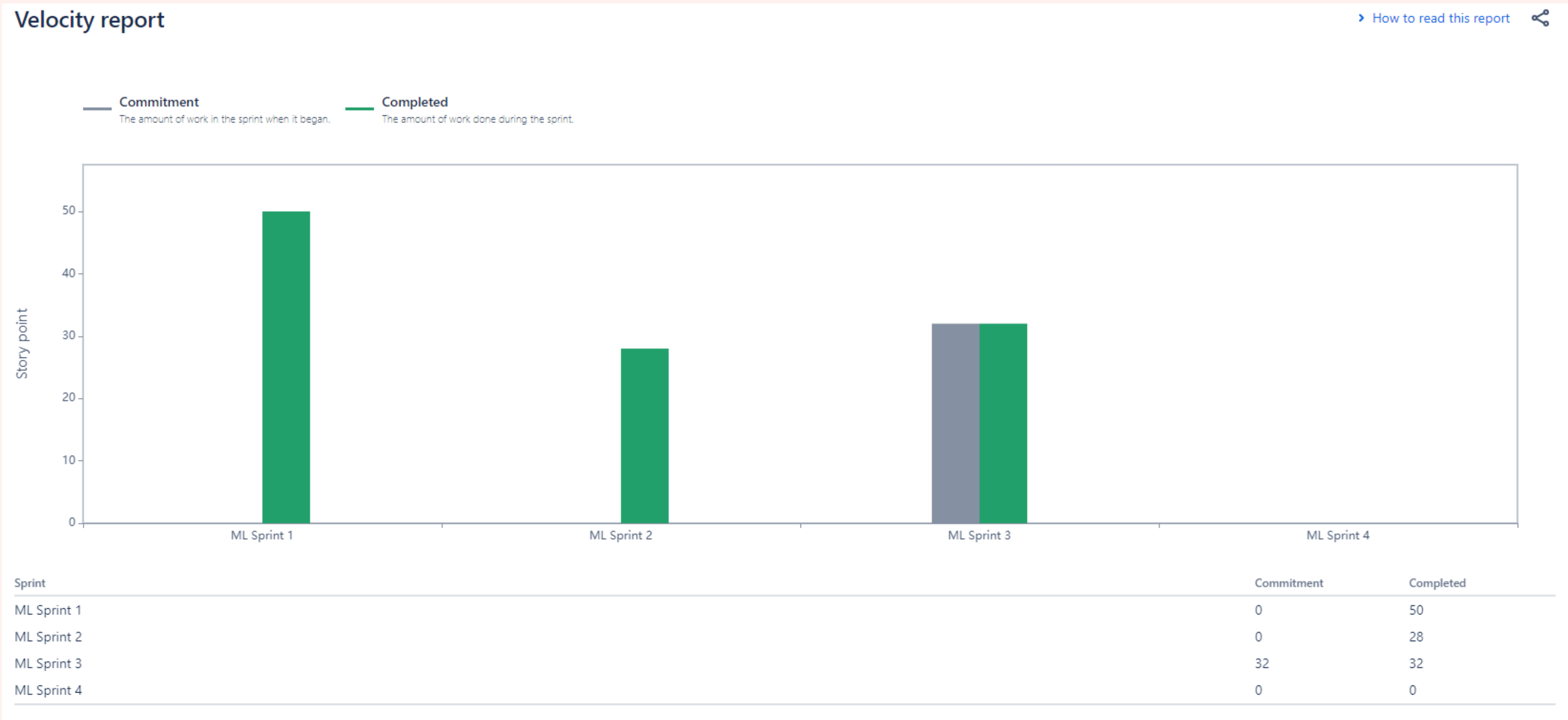


Sprint	Commitment	Completed
ML Sprint 1	0	50
ML Sprint 2	0	28
ML Sprint 3	32	32
ML Sprint 4	0	0

Sprint Burndown Chart



Completed/Committed Ratio



RETROSPECTIVE



WHAT WENT WELL

- We kept in touch throughout the project to ensure everyone knew what to do and any issues were quickly resolved.
- The team enjoyed working together.
- We found creative ways to solve any problems that came up, helping the project run smoothly.
- We delivered on schedule without any bugs.
- We had a tight schedule, but we stayed organized and got everything done. Our brainstorming sessions for user stories really helped.
- We planned well before starting, allowing us to break the project into smaller tasks and set realistic deadlines.

WHAT NEEDS IMPROVEMENT

- We had to work with new technologies and tools, which was tough for some team members.
- Sometimes we weren't all on the same page, which led to delays and confusion.
- Some team members didn't know much about the subject, which made it hard to make good decisions and caused a few mistakes.
- The process for giving feedback had issues, and it took a long time to review some topics.

NEXT STEPS

- We can also use analytics on the survey results to understand user behavior and spot areas that need improvement.
- We could offer training or resources to fill any knowledge gaps and keep everyone on the same page.
- We should update the status of assigned tasks regularly.
- To get users more involved, we can do public surveys to find out what people need and expect.

Project Demo



Sign Up

Username

Email

Password

Confirm Password

Age

Phone Number

Select Gender

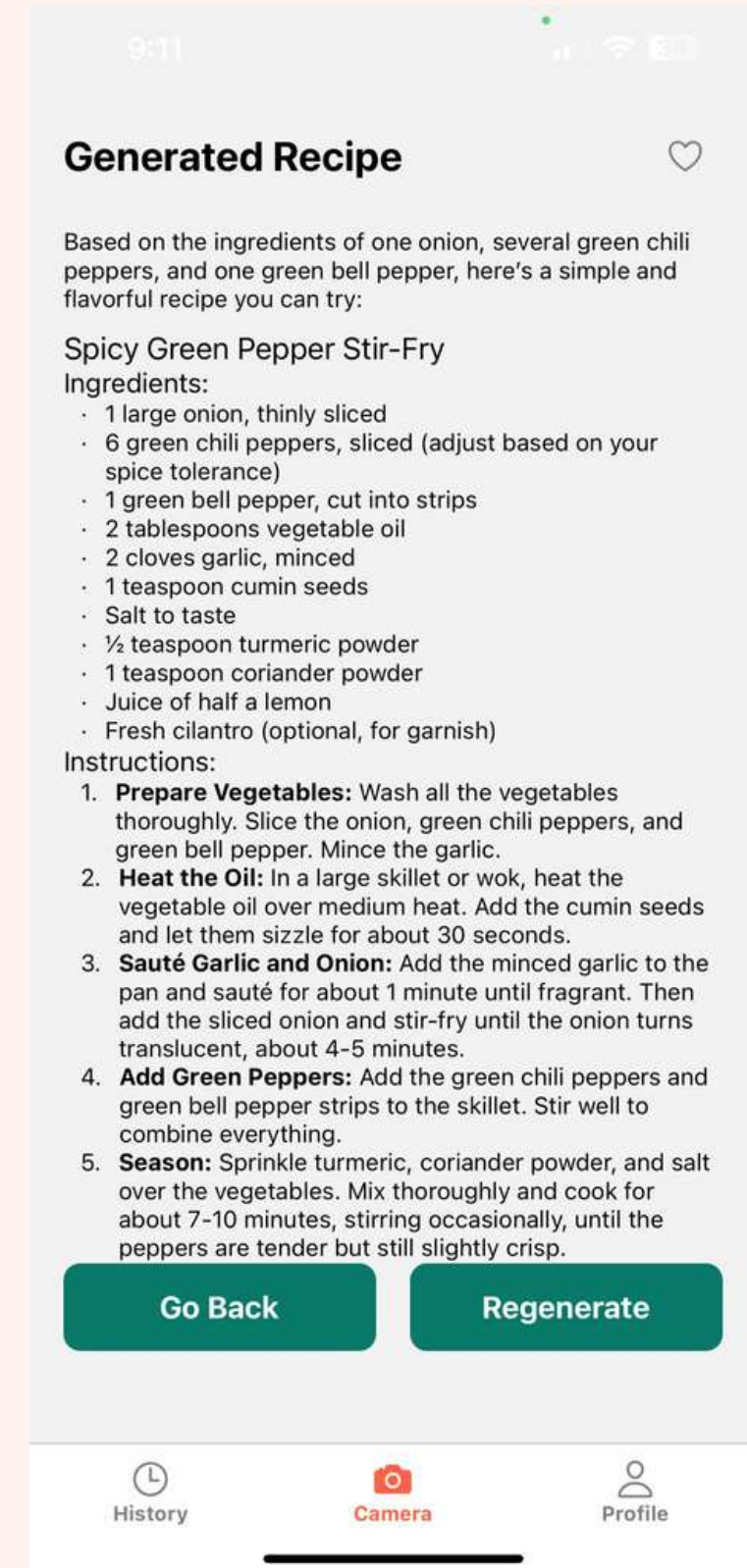
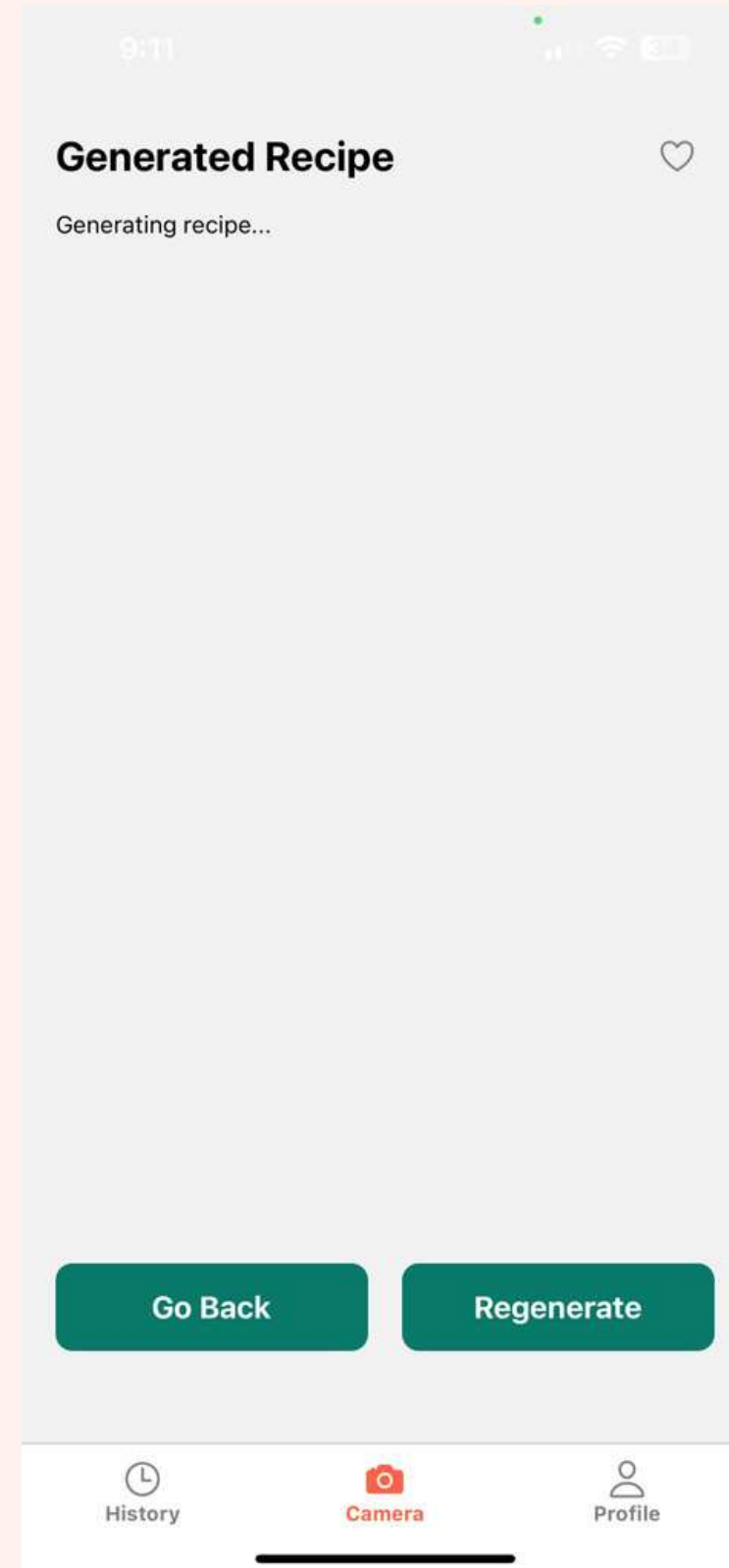
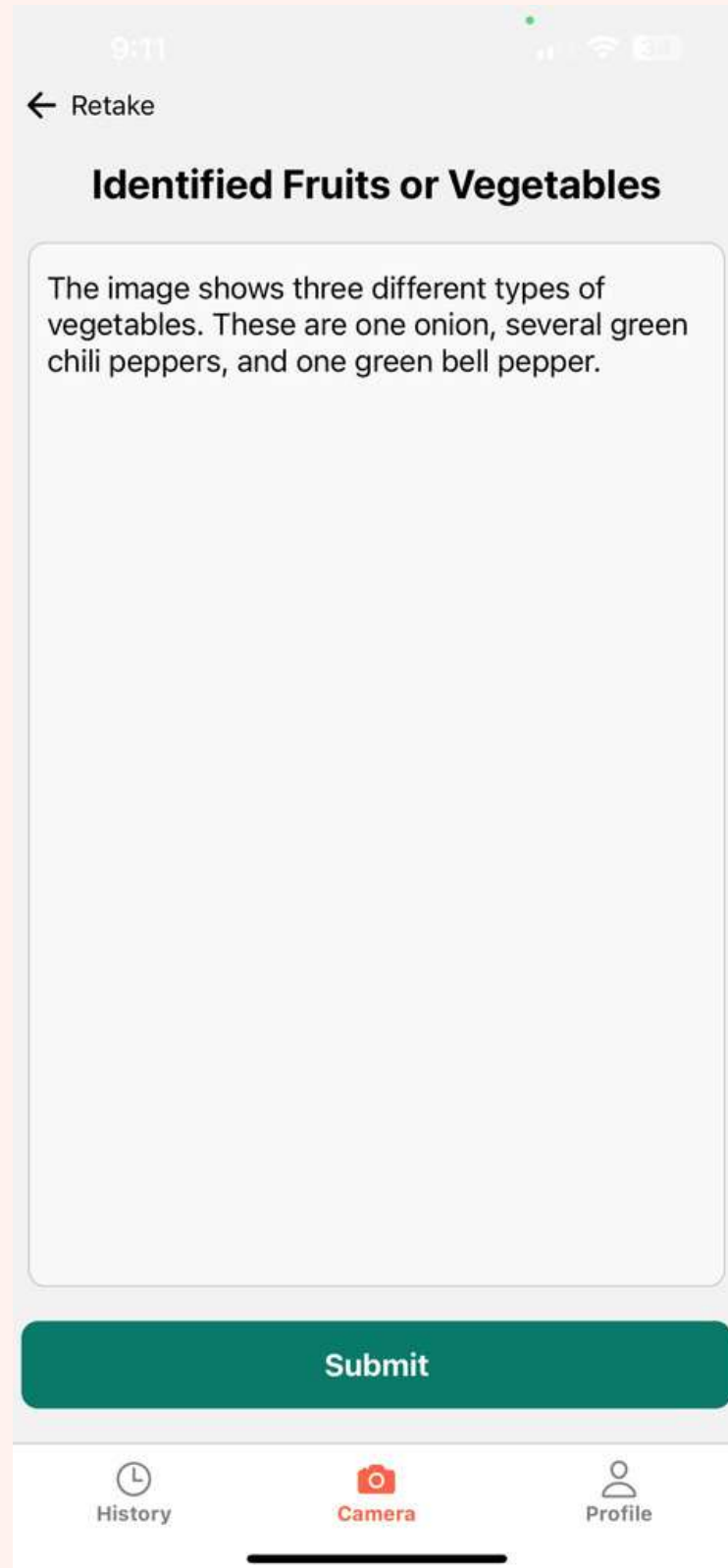
Male

Female

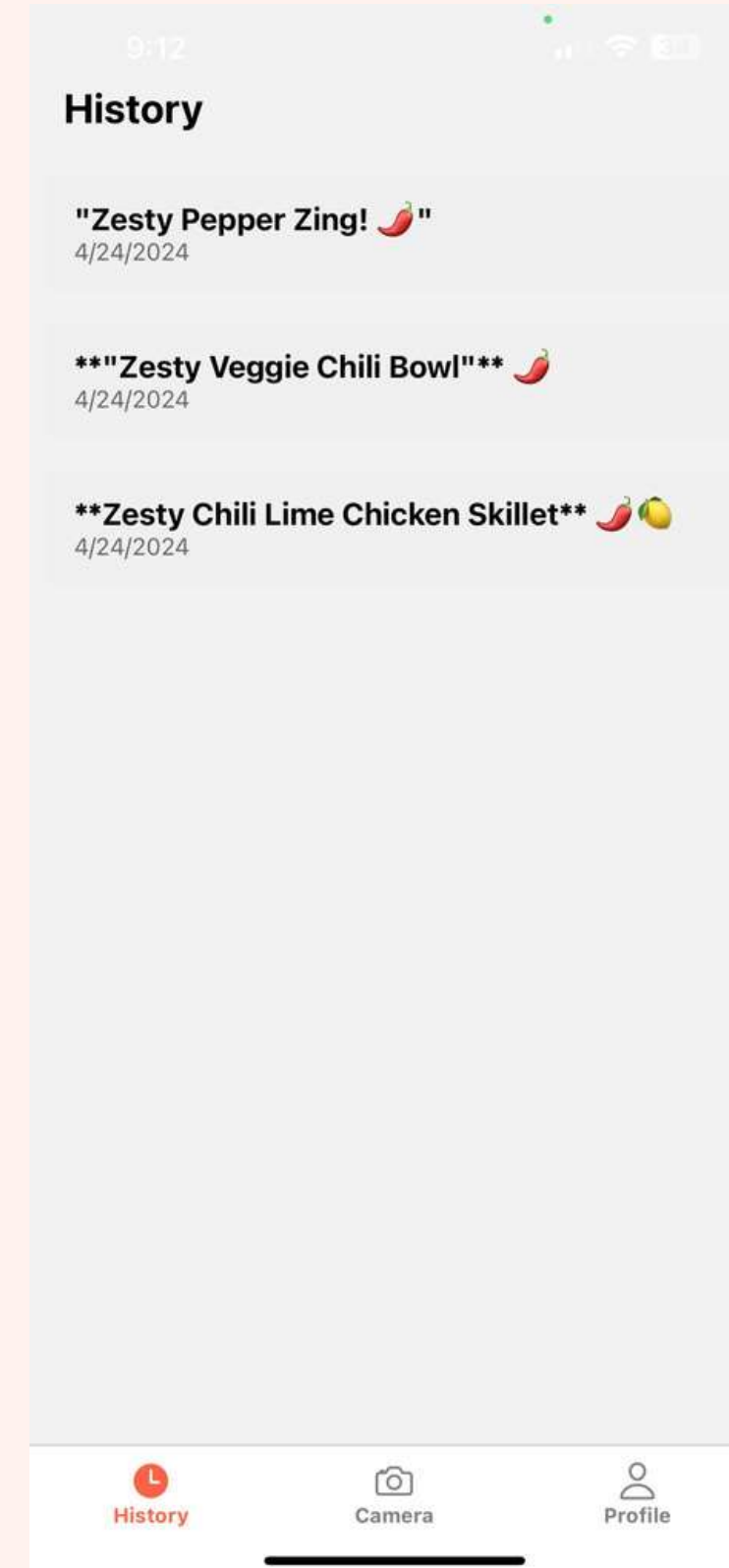
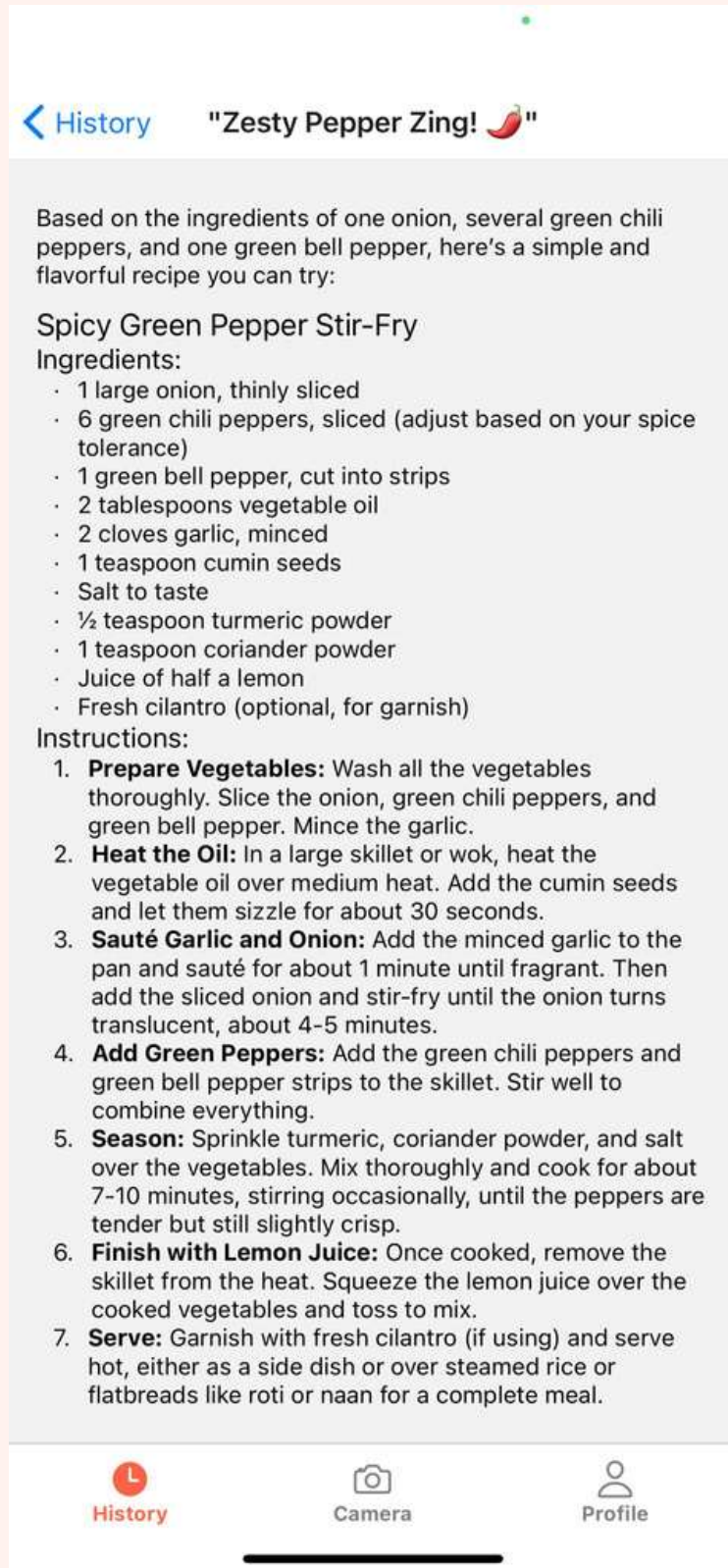
Sign Up



Project Demo



Project Demo



Links

Github Link

[Git Hub](#)

[URL](#)

Technical Paper Link

[Technical](#)

[Paper](#)

Deployment Manual Link

[Deployment](#)

[Manual](#)

Future Scope

- **Advanced Recipe Recommendations:** The app could use machine learning to improve recipe suggestions, considering users' past cooking history, dietary preferences, and food allergies. This personalized approach can make meal planning even more convenient.
- **Shopping List and Inventory Management:** Include a feature to automatically generate a shopping list based on planned recipes. The app could also track the inventory of ingredients, alerting users when they need to restock specific items.
- **Nutritional Information and Health Tracking:** Offer detailed nutritional information for each recipe and allow users to set dietary goals. Integration with fitness trackers or health apps could provide a comprehensive view of users' health and wellness.
- **Social Sharing and Community Engagement:** Enable users to share recipes, cooking tips, and photos of their meals with a broader community. Creating a space for users to interact can foster a sense of community and inspire creativity in the kitchen.
- **Voice Command Integration:** Incorporate voice recognition technology to allow hands-free operation. This can make it easier for users to interact with the app while cooking.
- **Integration with Smart Kitchen Devices:** Connect with smart appliances like ovens, refrigerators, or instant pots to streamline cooking processes. The app could send recipe instructions directly to these devices, simplifying cooking.
- **Dietary Plans and Custom Meal Prep:** Introduce features to create and manage weekly meal plans. Users can choose meal plans based on their dietary goals, lifestyle, or cuisine preferences.
- **Localized Recipe Suggestions:** Offer recipes based on local cuisine, supporting users from different regions. This could enhance cultural relevance and encourage users to try new dishes.

Live Application Demo



Sign Up

Username

Email

Password

Confirm Password

Age

Phone Number

Select Gender

Male

Female

Sign Up





Thank you!