

WP 3 – IMPLEMENTATION OF TRACEABILITY based on a digitalized system throughout food chain “from farm to fork”

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CONTENT

1. TSP-UTM WP3 Roles and involvement
 - 2.1. WP3 Status and Updates
3. Jassp Task Progress Review
 - 3.1. NFT Market Place
 - 3.2. Mobile App Toolbox
 - 3.3. Implementation Highlights
4. References

DOCUMENT SUMMARY INFORMATION

Project Name	More on the adoption of a healthy Mediterranean diet
Project Acronym	MoreMedDiet
Project No	101102316
Type of Action	PRIMA Call 2022/ Section 2
Topic	2.3.1.-2022
Starting Date of Project	01 June 2023
Duration of the Project	36 months
Project Website	https://www.era-learn.eu/network-information/networks/prima/section-2-2013-multi-topic-2022/more-on-the-adoption-of-a-healthy-mediterranean-diet
Work Package	WP3. IMPLEMENTATION OF TRACEABILITY based on a digitalized system throughout food chain “from farm to fork”
Deliverable Number	D3.3
Deliverable Title	Alpha version of the prototype Platform- Blockchain Traceability
Task	Task 3.2. , 3.4. , 3.2.
Lead Author	TSP, UTM
Contributors	TSP, UTM, JASSP
No. Page	29
Version	1.0
Due Date	M22 (March 2025)
Submission Date	31/03/2025

1. TSP - UTM WP3 Roles and involvement

- TSP is leader of Task 3.2 : The core blockchain-based platform infrastructure and digital identity wallets
- TSP is involved in Task 3.3, Task 3.4
- WP3 deliverables from TSP as lead are D3.2 Software design document, D3.3 Alpha version of the prototype platform.
- TSP was heavily involved in D3.4 the Beta version lead by UTM.

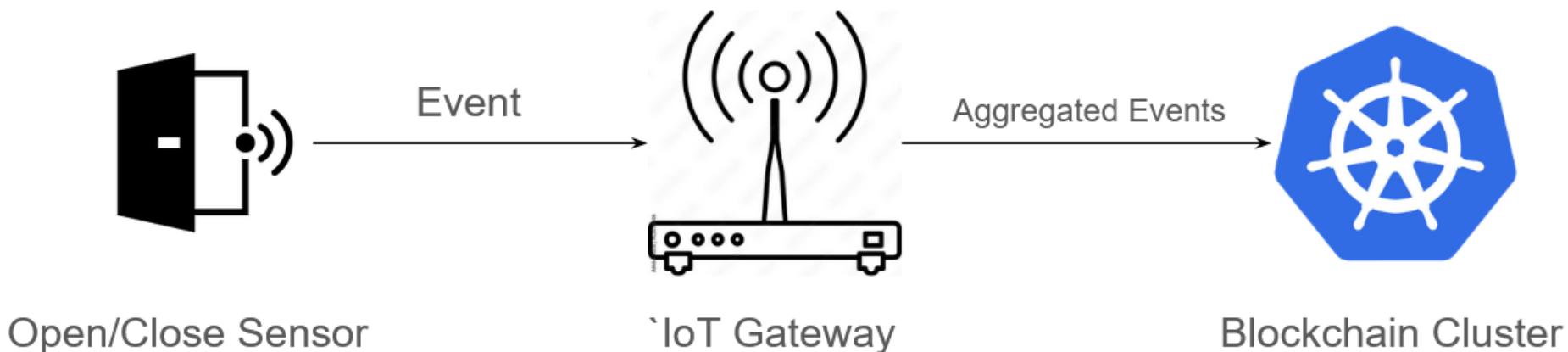
TSP - UTM – WP3 Status and Updates

- Interns in our team: 3 interns joined our team during this last year and contributed in various areas to the WP: Mohamed in DevOps (6 months), Igor in Smart Contracts and blockchain-based automation, Marwen on IoT integration.
- On-premise deployment of the blockchain **Kubernetes** cluster
- Automated deployment process and continuous delivery with **Argo CD**
- Integrated logging with **Grafana**
- GitHub repositories for continuous integration



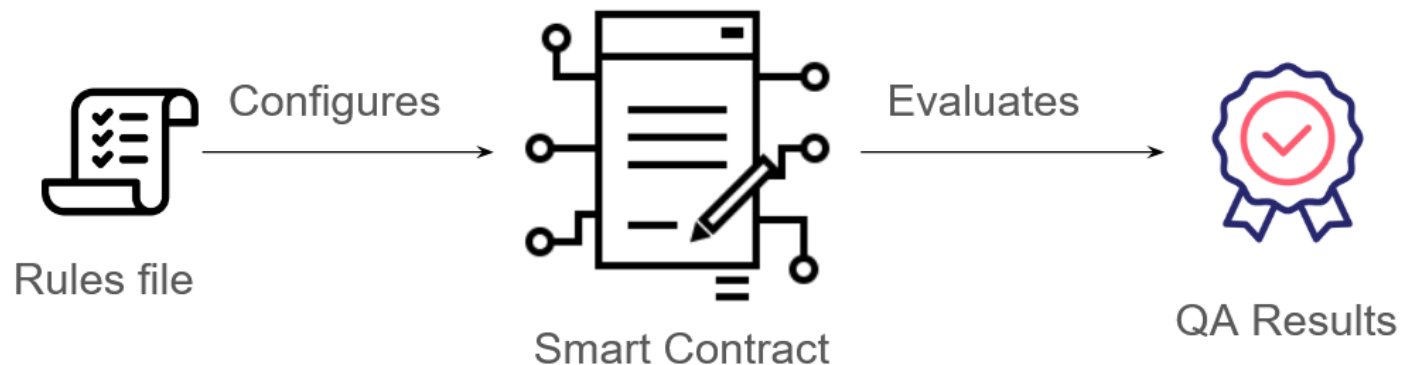
TSP - UTM – WP3 Status and Updates

- Real-life integration of a contact sensor, industrial-grade IoT gateway and the blockchain platform
- Ready to integrate other sensor types (4G SIM required)



TSP - UTM – WP3 Status and Updates

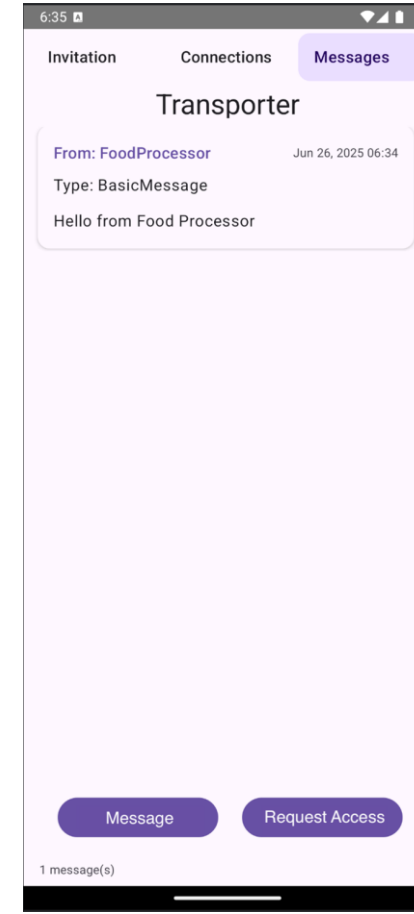
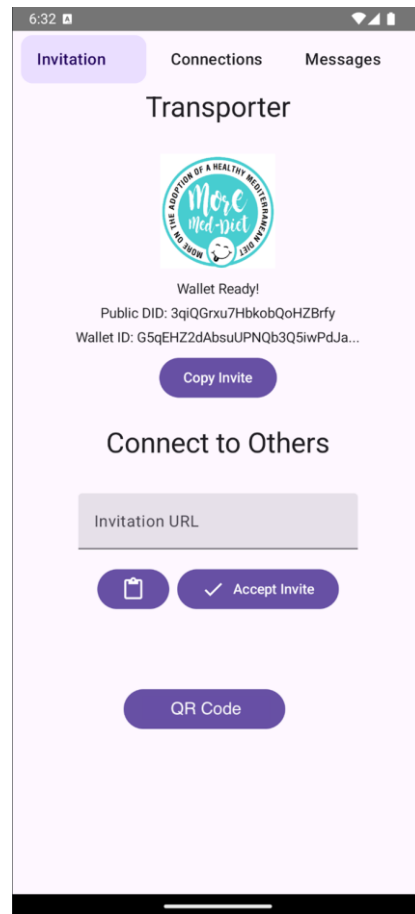
- Real-time monitoring and alerting smart-contract implemented and deployed on the blockchain
- QA smart contract (originally developed by UTM) that is configurable, i.e. can be applied to any product with any monitoring rules.
- Smart contracts evaluates the QA of a product on the fly when a property is updated (by an IoT sensor)



TSP - UTM – WP3 Status and Updates

- **Digital Identity wallet** for food-chain stakeholders developed as a mobile application.
- Wallet developed in Kotlin, multi-platform (Android and iOS)
- Uses Kotlin Aries Framework, utilizing Self-Sovereign Identities and Verifiable Credentials (VC).

TSP – Application Overview



DOCUMENT SUMMARY INFORMATION

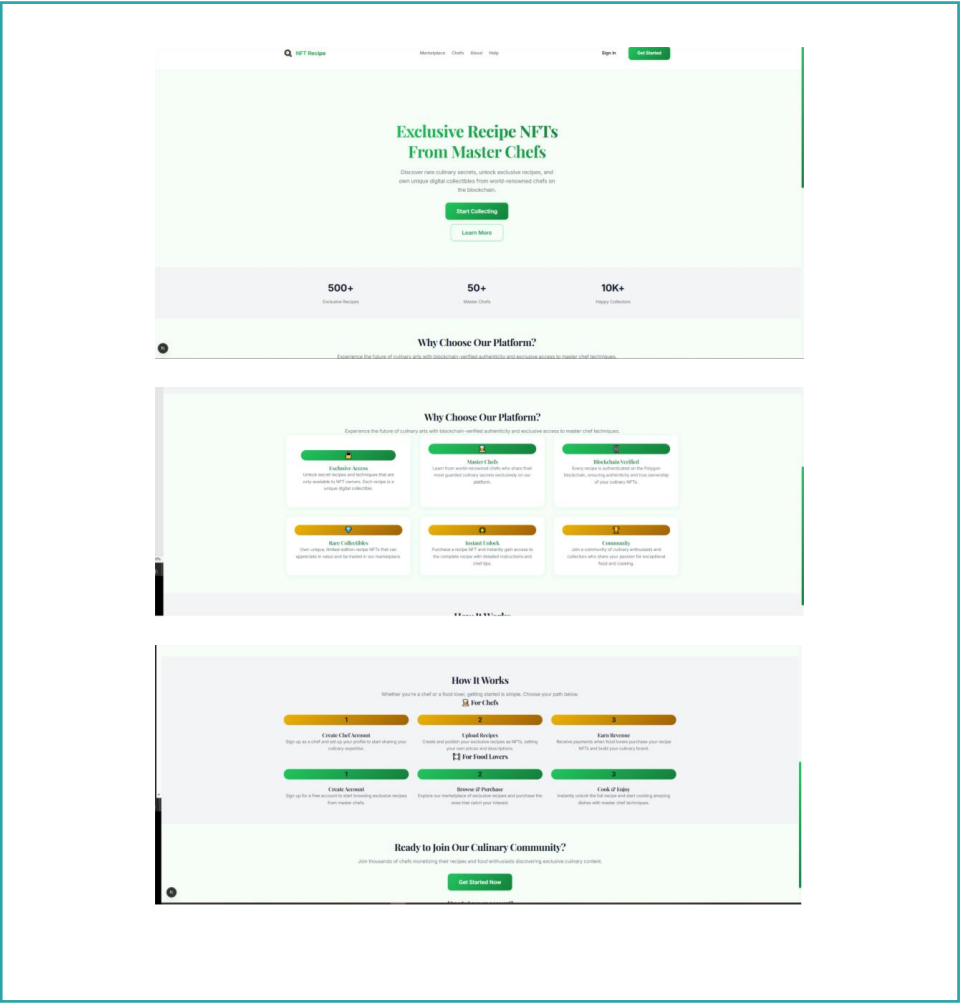
Project Name	More on the adoption of a healthy Mediterranean diet
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Work Package	WP3. IMPLEMENTATION OF TRACEABILITY based on a digitalized system throughout food chain “from farm to fork”
Deliverable Number	D3.8
Deliverable Title	Alpha version - Mobile applications toolbox (3 apps)
Task	Subtask 3.5.3
Lead Author	JASSP
Contributors	TSP, UTM
No. Page	46
Version	1.0
Due Date	31/05/2025
Submission Date	21/05/2025

3. Jassp Task Progress Review

- First version of the mobile app developed.
- Core features already functional.
- Ongoing improvements planned
- NFT Marketplace Overview
- MMD Mobile App Overview

3.1. NFT MarketPlace

- Design enhancement.
- BlockChain Improvement



Home Page

Join Our Community

I want to join as a:

Food Enthusiast

☒ Collect and cook exclusive recipes

Chef

☐ Share and monetize your recipes

First Name

John

Last Name

Doe

Username*

Choose a unique username

Email Address*

your@email.com

Blockchain Wallet Management

Don't worry about wallet setup! We handle all blockchain operations on your behalf. Your NFTs and transactions are

Join Our Community

I want to join as a:

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Last Name

Doe

Username*

Choose a unique username

Email Address*

your@email.com

Blockchain Wallet Management

Don't worry about wallet setup! We handle all blockchain operations on your behalf. Your NFTs and transactions are

Sign Up

Recipes Minted as NFTs (Polygon)

POL Price: \$0.227269 (-8.44%) Gas: 27.276 Gwei

Search by Address / Txn Hash / Block / Token / Domain Name

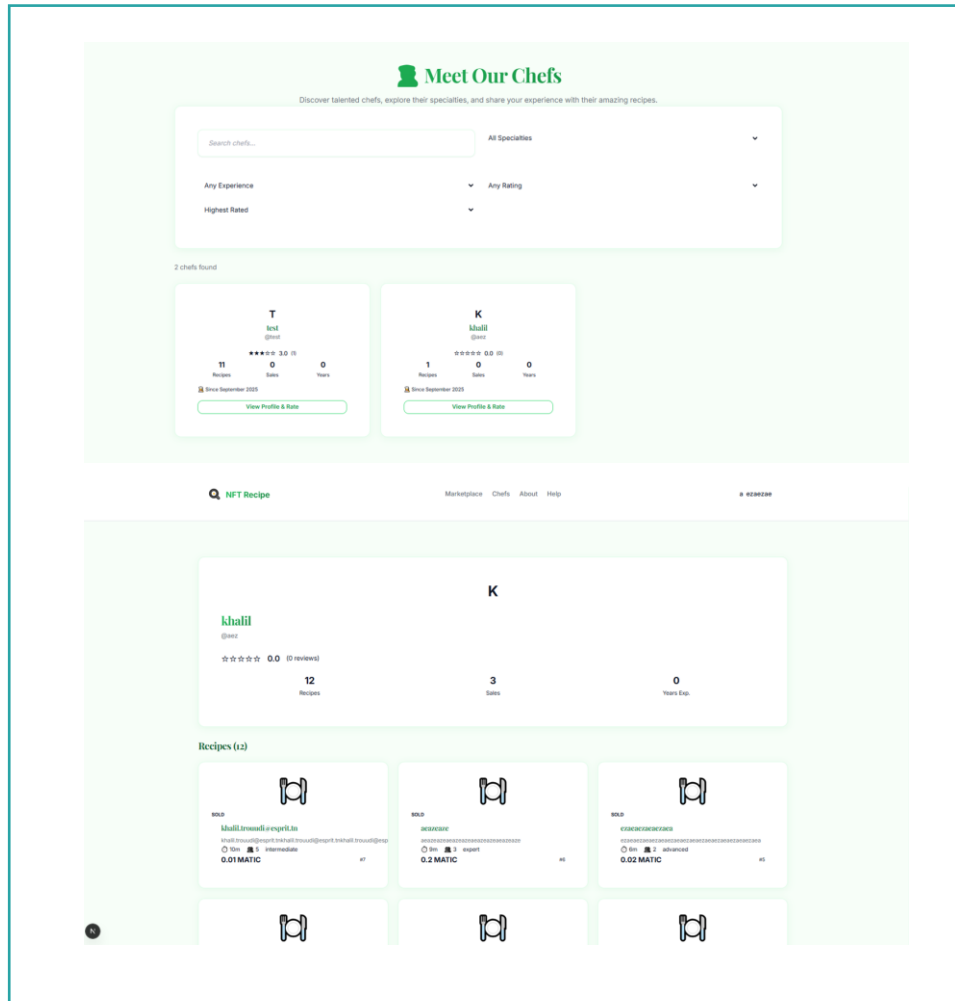
Transfers Holders Inventory Info Contract

A total of 10 transactions found

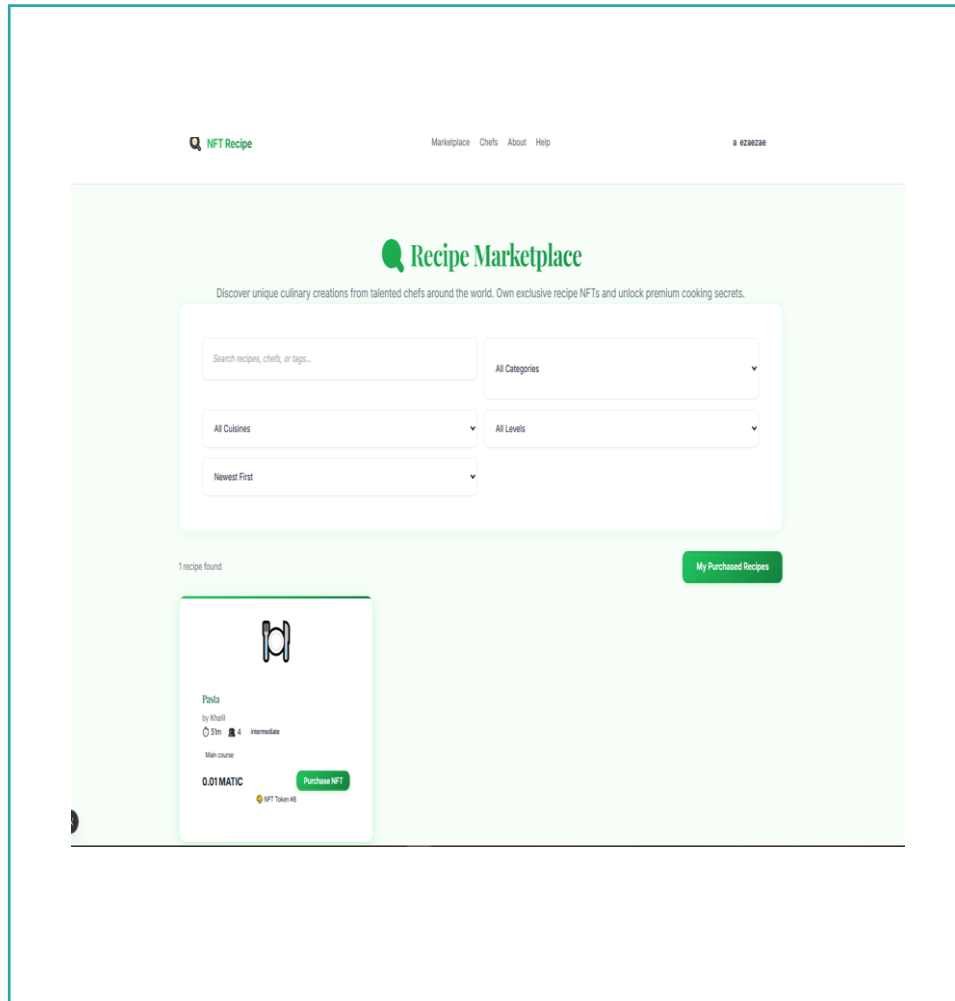
Download Page Data Advanced Filter First Page 1 of 1 Last

Transaction Hash	Method	Block	Age	From	To	Value	Item
0x9bd1d6533a...	0x38a7f57d	76473627	7 days ago	Null: 0x000...000	0xf2177c9e...9026d50f7	1	#7
0xb947571e01...	0x5dbd0738	76460537	7 days ago	Null: 0x000...000	0xfa8972Aa...45EDAD2b2	1	#7
0x42ac559f62a...	0x38a7f57d	76447443	8 days ago	Null: 0x000...000	0xf2177c9e...9026d50f7	1	#6
0x313316da39...	0x5dbd0738	76446171	8 days ago	Null: 0x000...000	0x61c16842...460767233	1	#6
0x049a15c131...	0x38a7f57d	76445525	8 days ago	Null: 0x000...000	0xf2177c9e...9026d50f7	1	#5
0x72b1845cf1...	0x5dbd0738	76445516	8 days ago	Null: 0x000...000	0x61c16842...460767233	1	#5
0x38c96dc63							#4

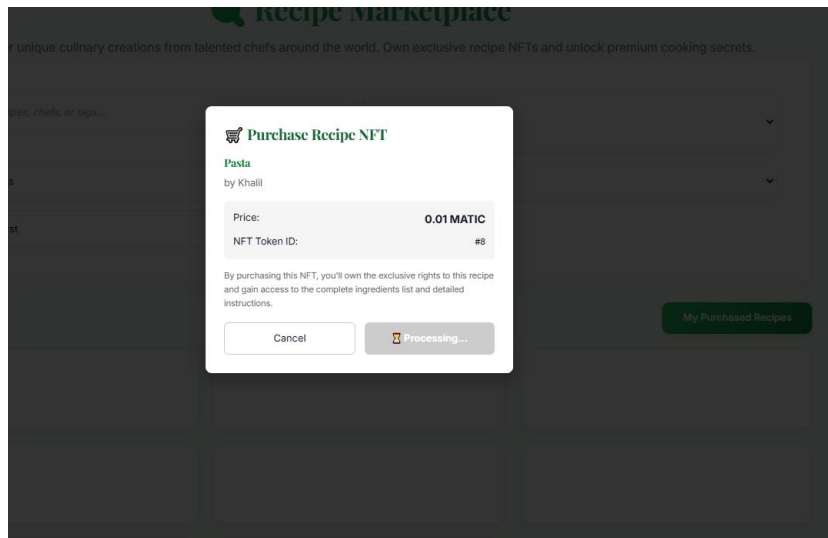
This website uses cookies to improve your experience. By continuing to use this website, you agree to its Terms and Privacy Policy. Got it!



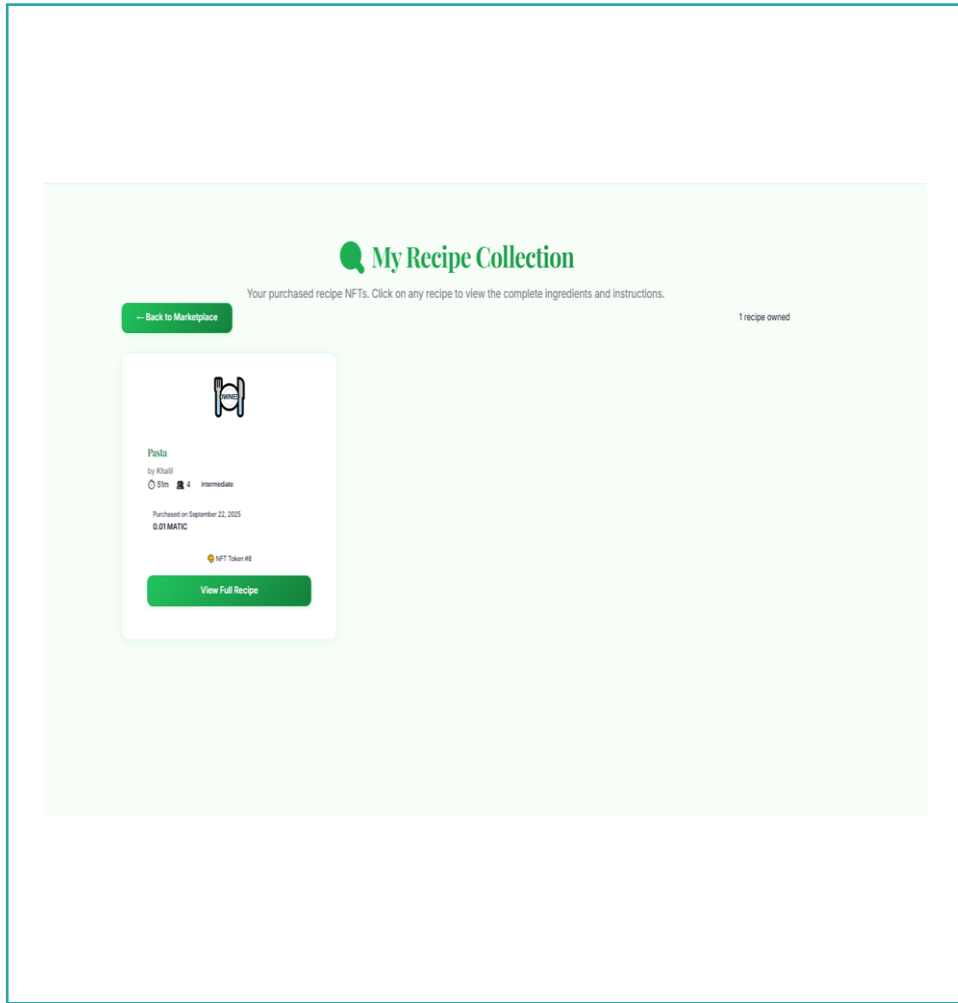
Chef Directory



Recipe MarketPlace



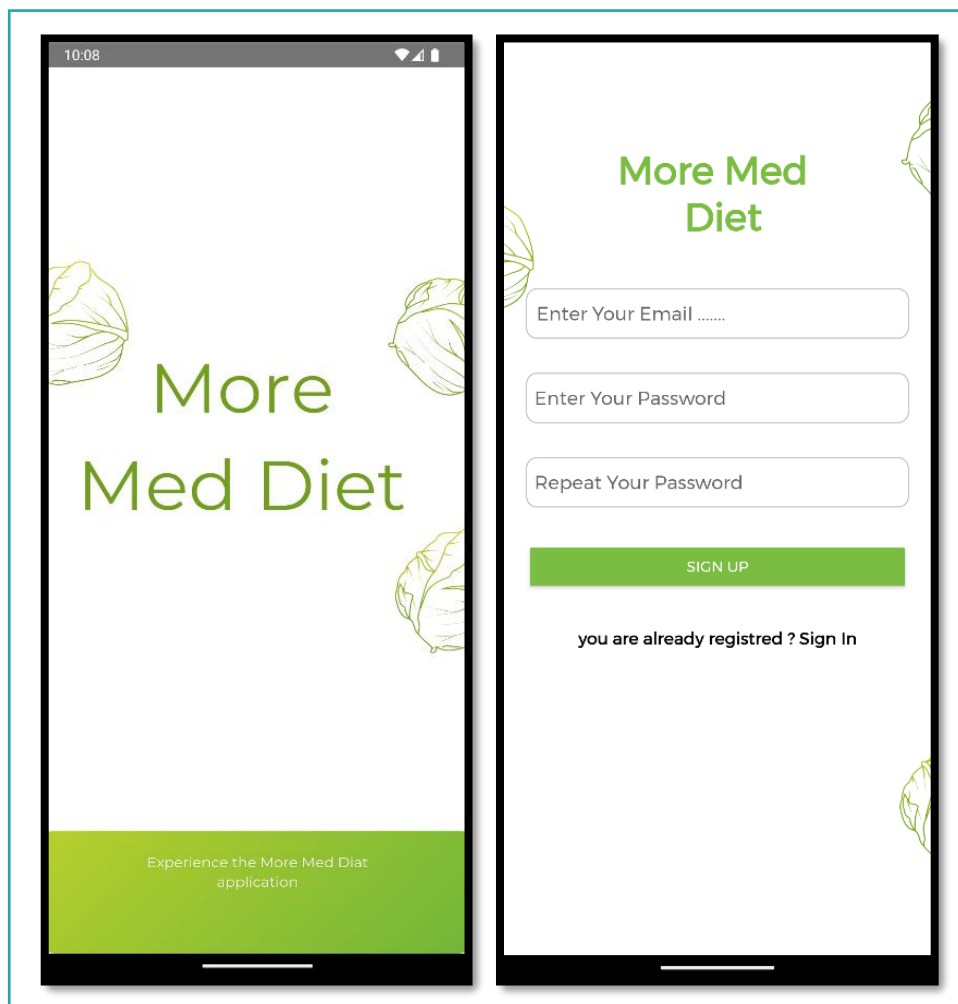
Purchase Popup



Recipe Collection

3.2. Mobile App Toolbox

- Mobile app for healthy recipes
- Learn about diet and nutrition habits
- Take part in diet & fitness challenges
- Chatbot for personalized advice
- Share recipes in a health-focused community
- Quiz on food, diet, and fitness knowledge



Registration Interface

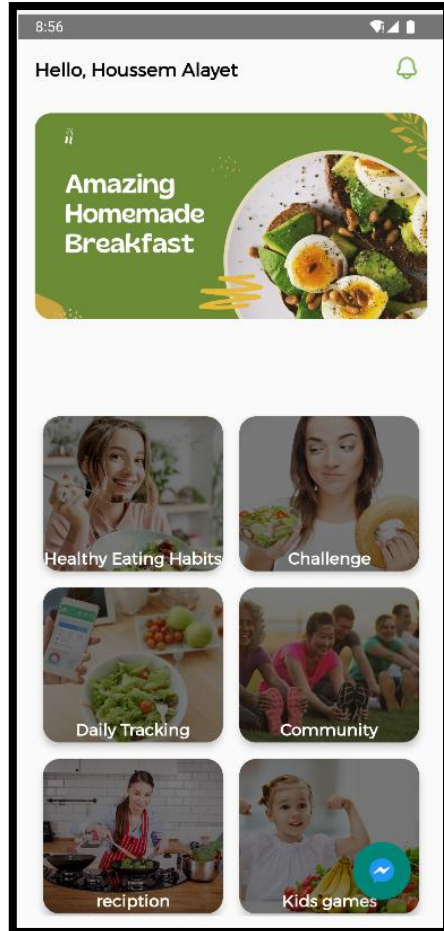
More Med Diet

SIGN IN

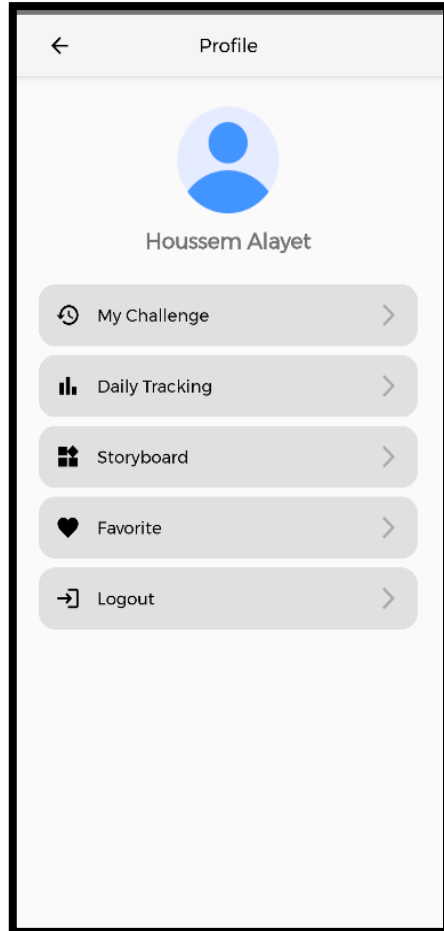
Not Registered Yet ? Sign Up

By using our app, you agree on our Terms,
Conditions and Privacy policy

Login Interface



Home Interface



Profile Interface



Notification Interface

← Tracker Setting

Male

Height (cm or ft/in)

Weight (kg)

☐ Lose Weight

☐ Maintain Weight

☐ Gain Weight

SAVE

5:05

What have been your barriers to losing weight?

TIME CONSTRAINTS

LACK OF MOTIVATION

DIET CHALLENGES

EXERCISE CONSISTENCY

NEXT

User Setup 1

5:05

What results do you want to achieve from gaining muscle?

BUILD STRENGTH

GAIN MASS

TONE UP

IMPROVE ATHLETIC PERFORMANCE

NEXT

5:05

What is your baseline activity level?

☐ Sedentary (little or no exercise)

☒ Lightly active (light exercise/sports 1-3 days/week)

☐ Moderately active (moderate exercise/sports 3-5 days/week)

☐ Very active (hard exercise/sports 6-7 days/week)

NEXT

User Setup 2

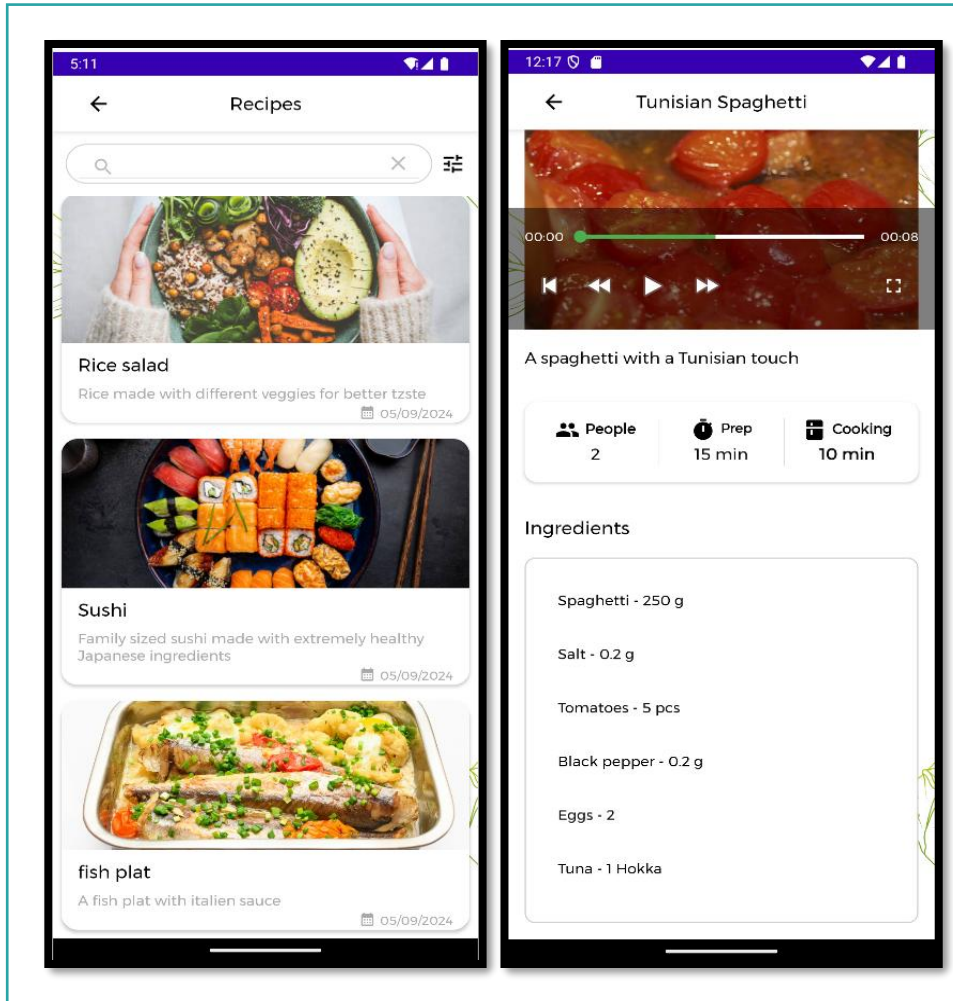
5:06

Review Your Info

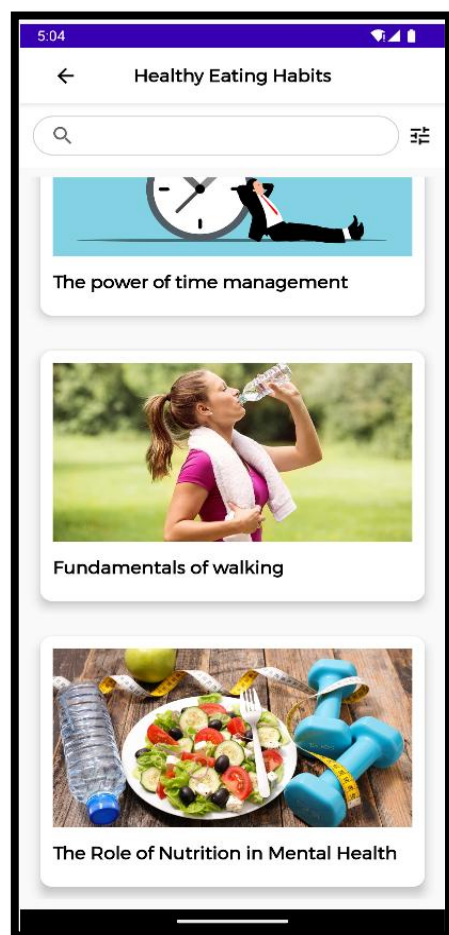
Gender: Female
Height: 165 cm
Weight: 63 kg
Goal: Lose Weight
Barriers: [Exercise consistency]
Muscle Goals: [Tone Up]
Activity Level: Lightly active (light exercise/
sports 1-3 days/week)

CONFIRM AND
SAVE

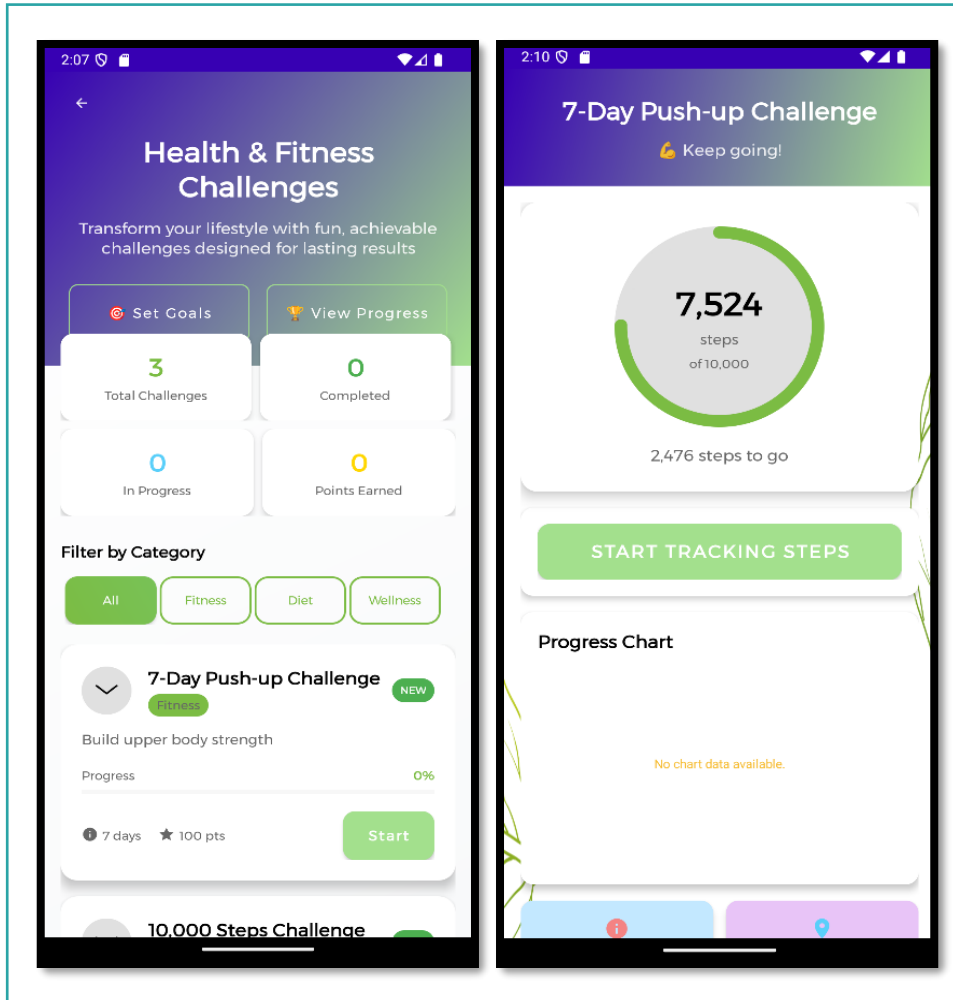
User Setup Summary



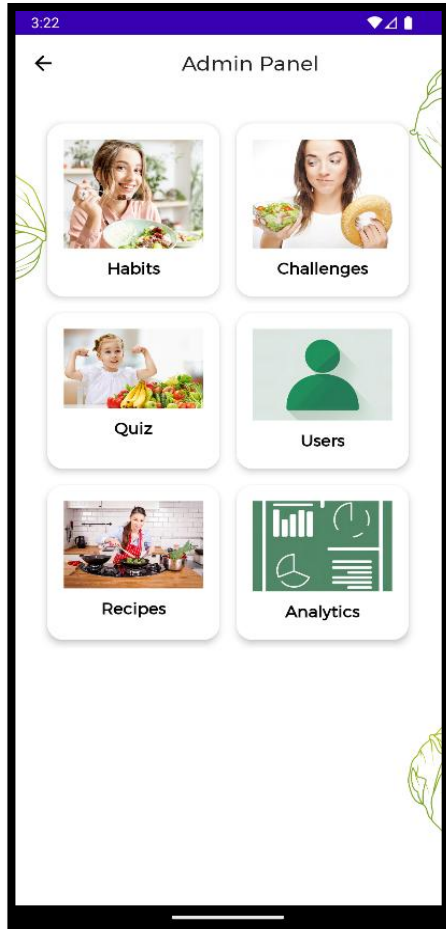
Recipe and Recipe Detail Interface



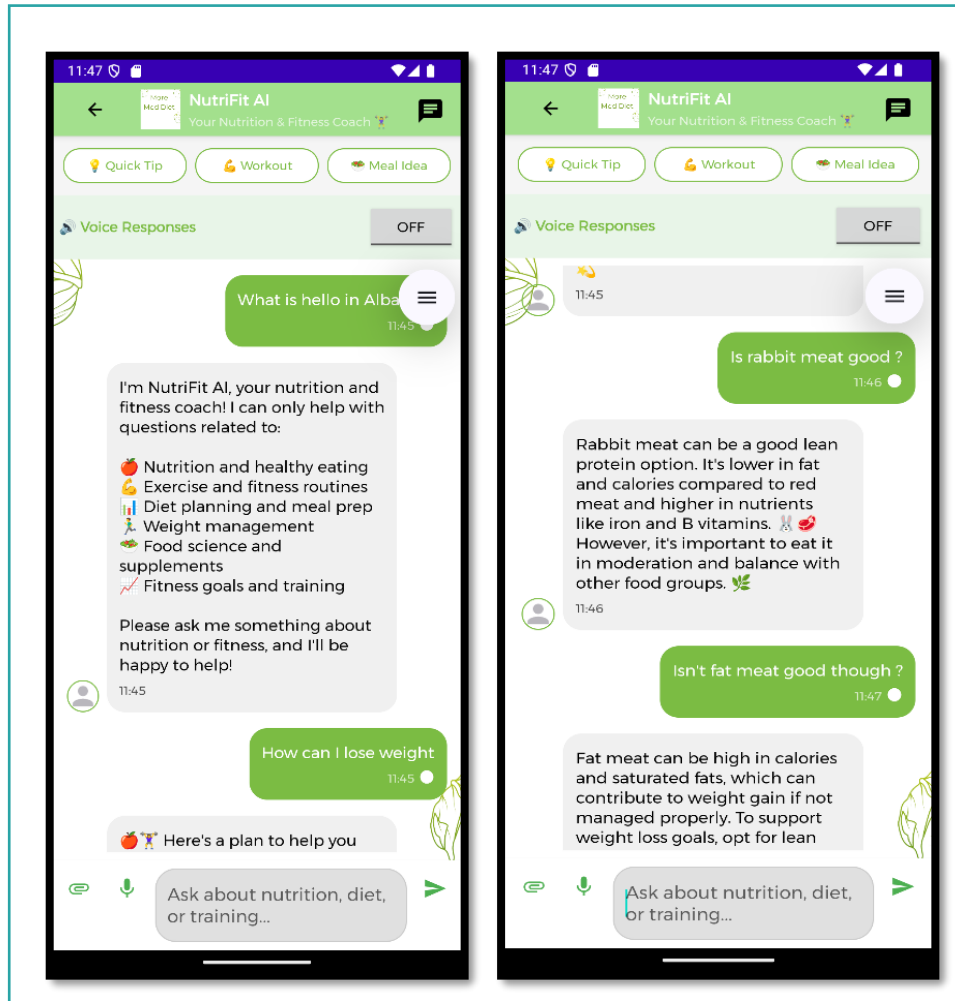
Habits Interface



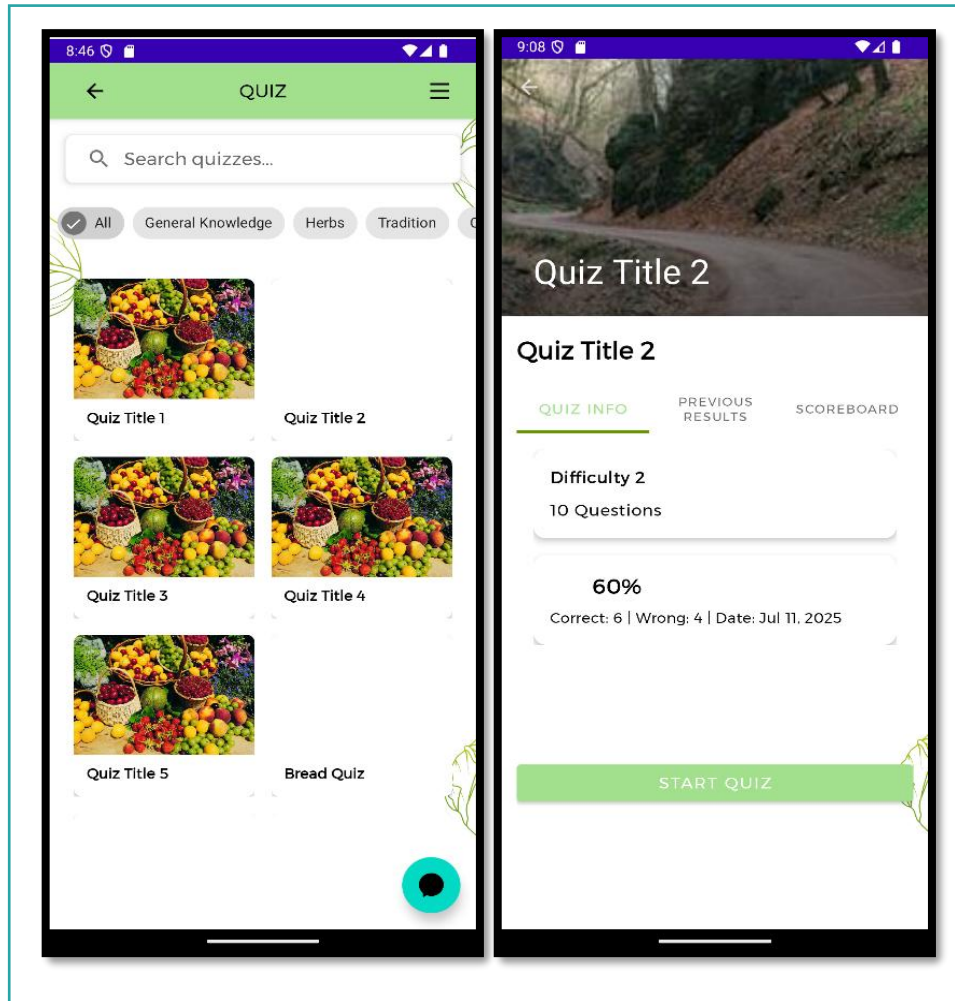
Challenge Interface



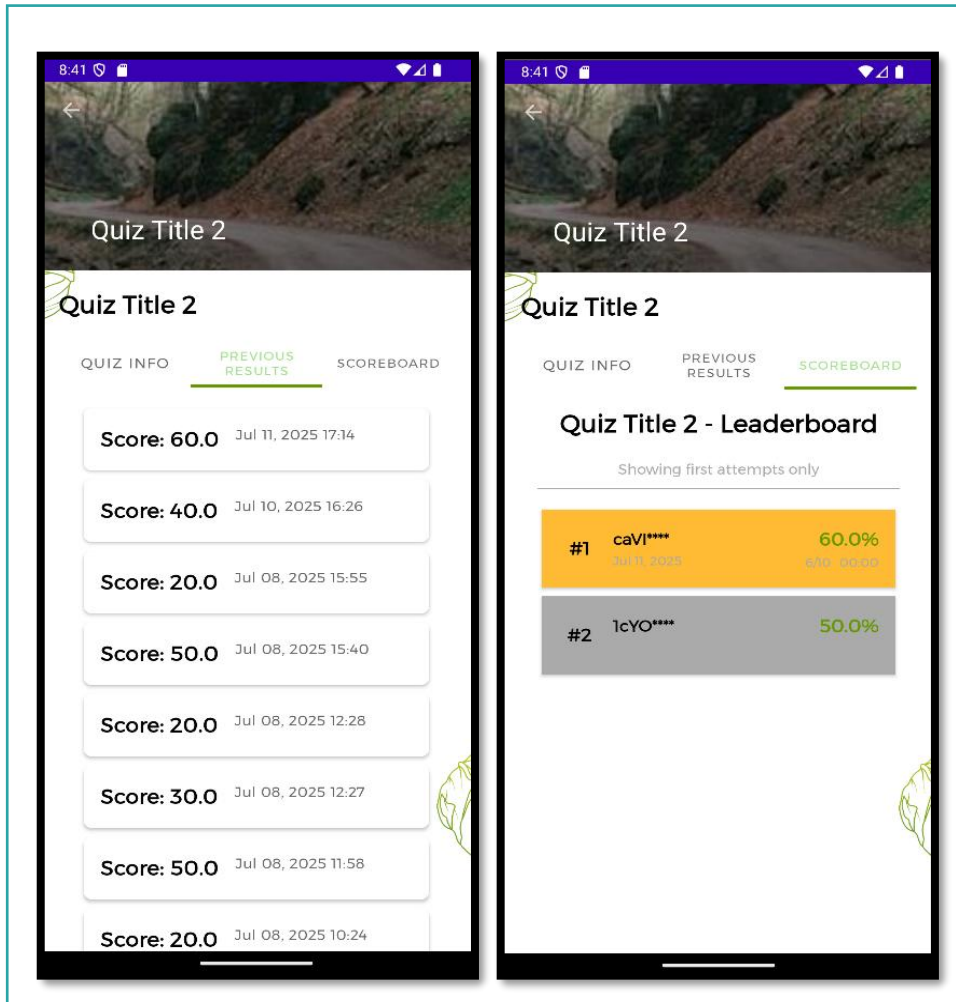
Admin Interface



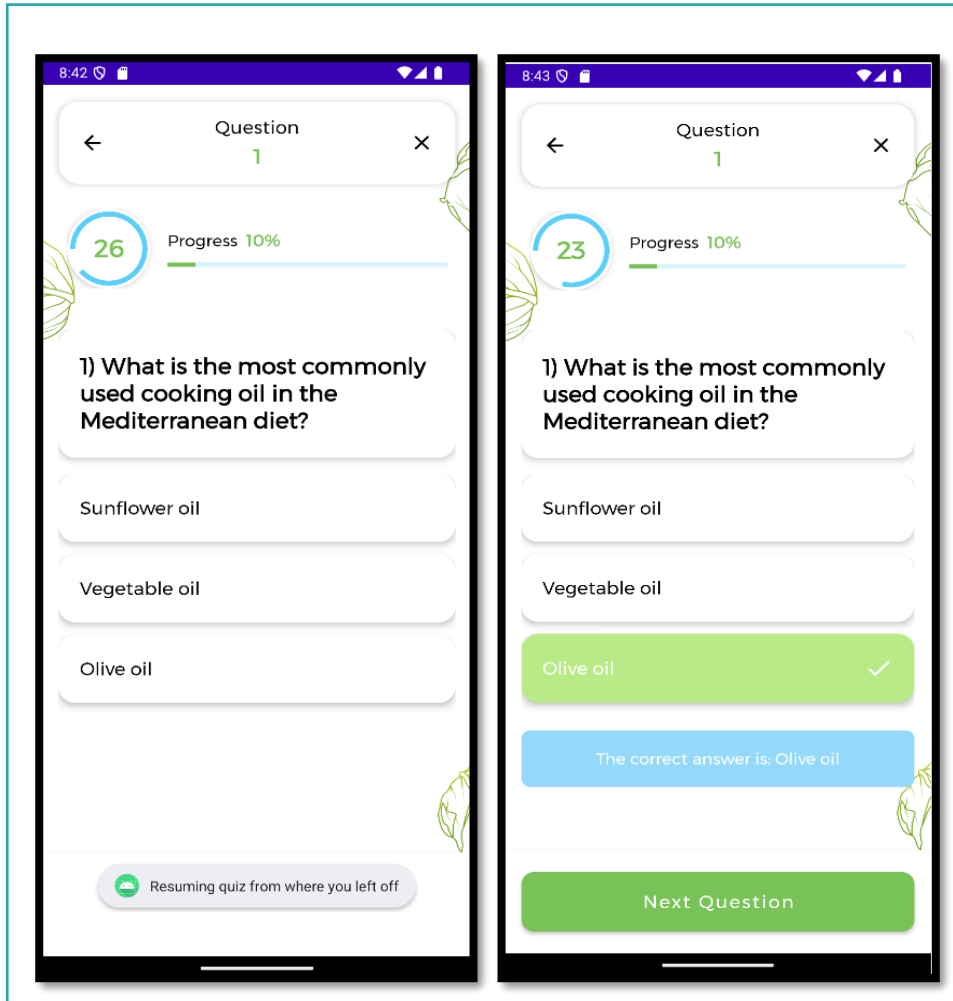
Chatbot Interface



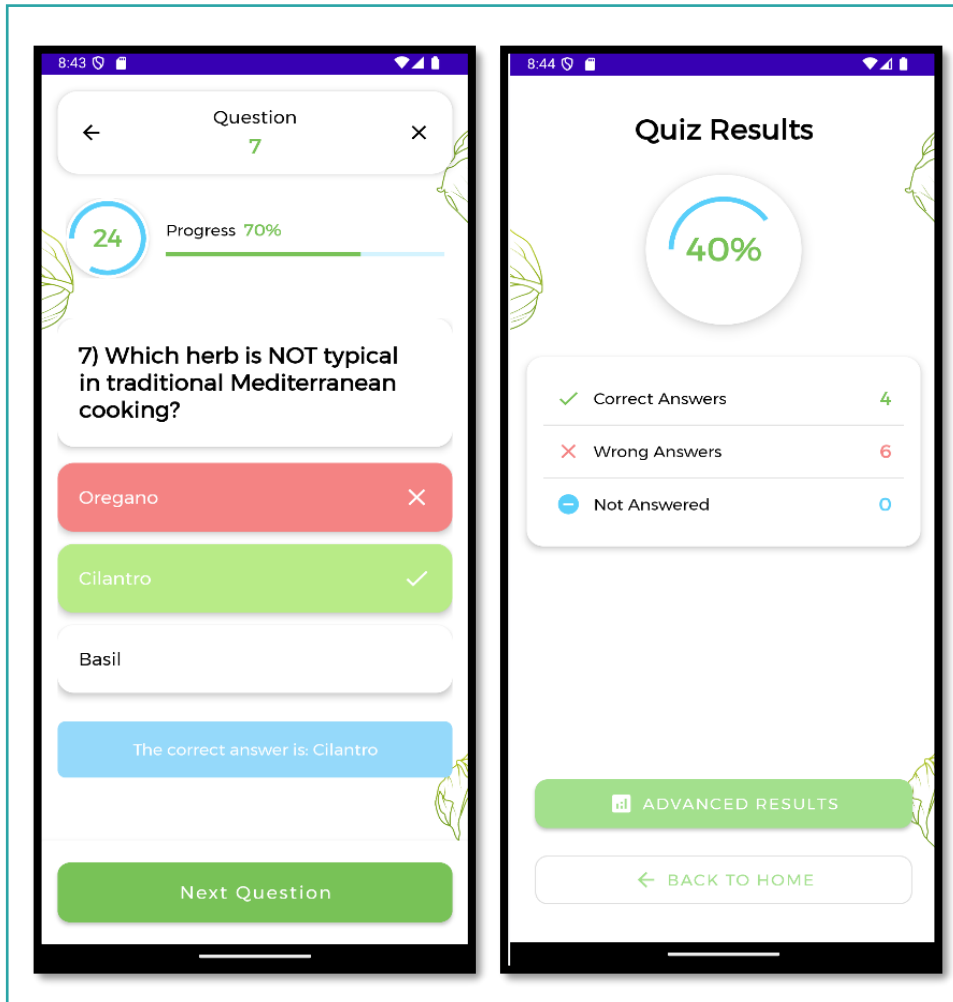
Game List and Detail



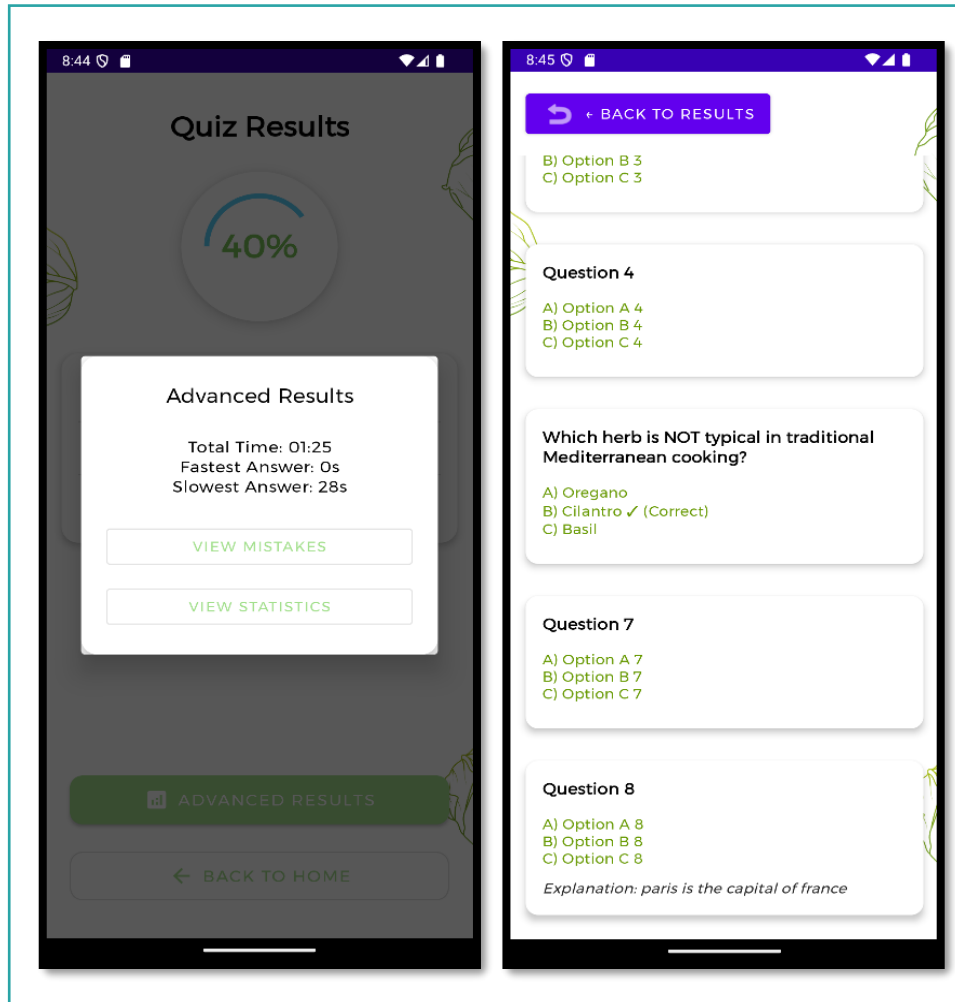
Game Previous Results - Scoreboard



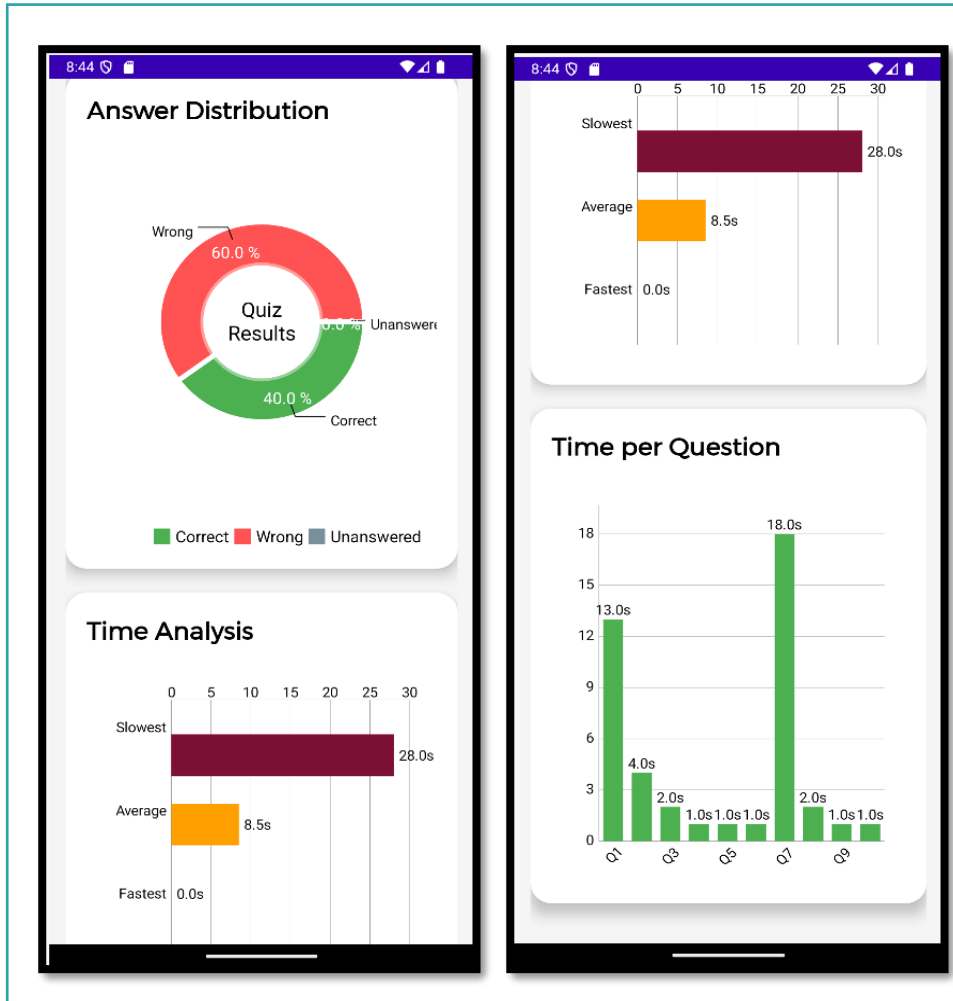
Game Interface



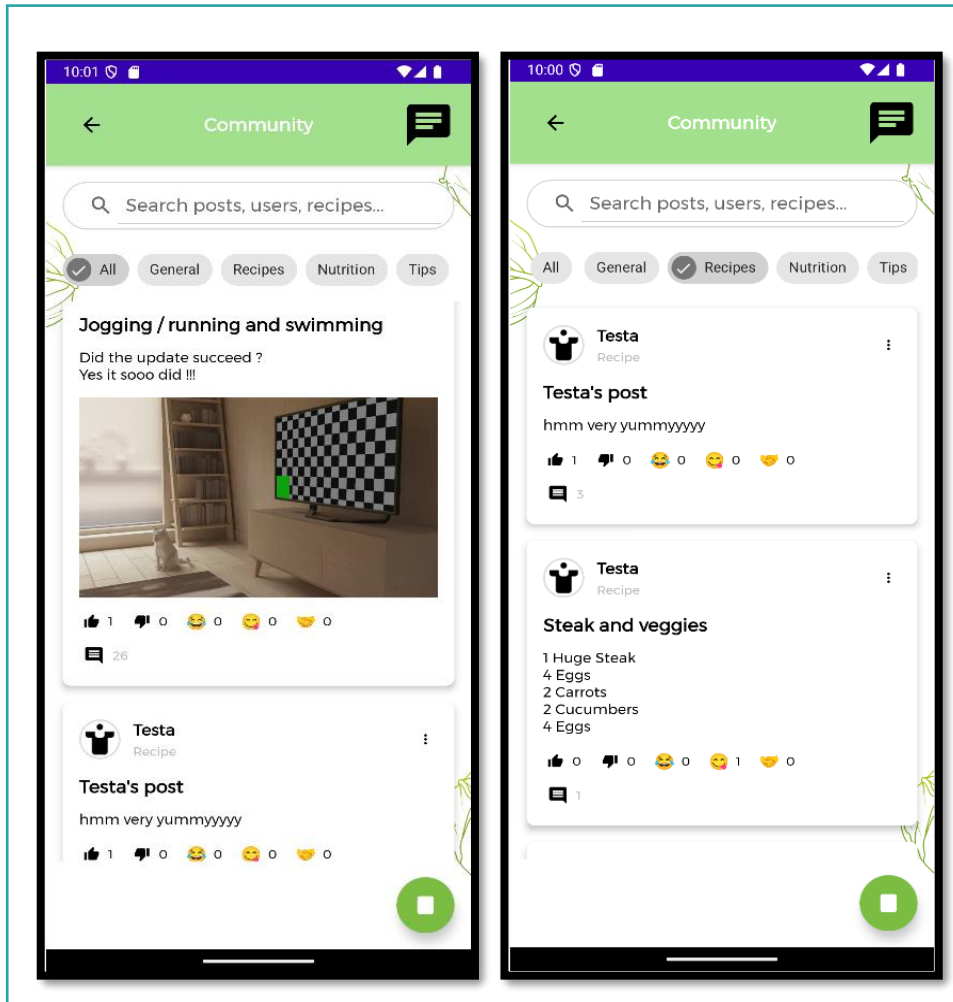
Game Result



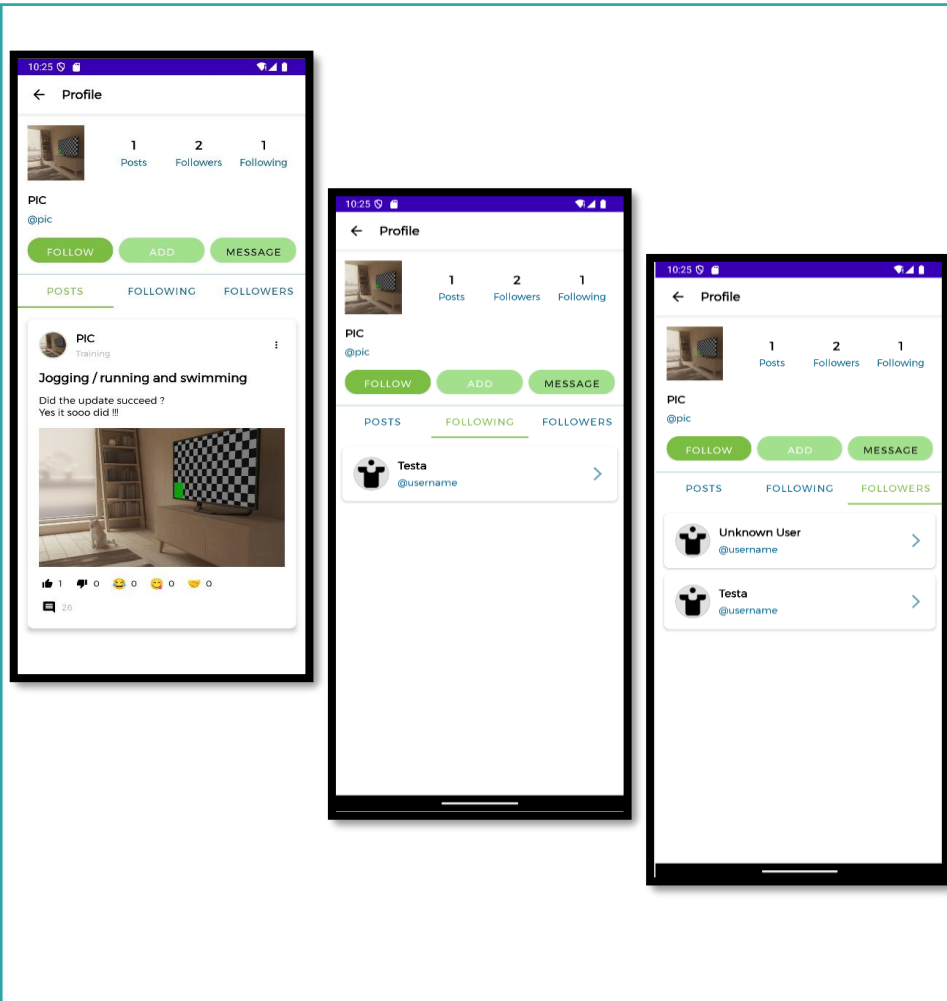
Game Review



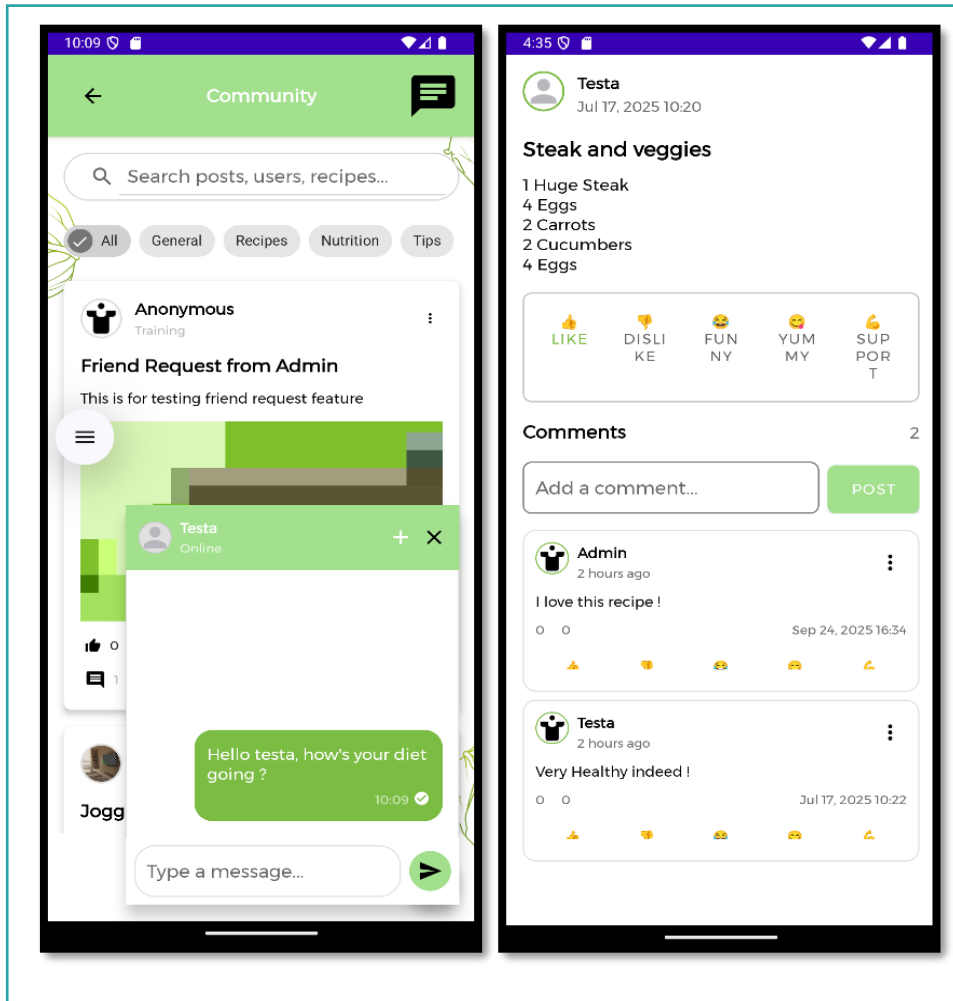
Game Statistics



Community Interface



Community Profile



Community Chat - Comments

3.3. Implementation Highlights

- Overall Design enhancement for both NFT Marketplace and Mobile App.
- Integrated a Chatbot that retrieves the connected user's data for accurate guidance.
- Made an instagram like community feature that's dedicated for fitness and dieting.
- Improved the quiz experience by adding analytic dashboards and an answer review page.
- Created an Admin only space for easier management and data control.
- Upgraded video player inside recipe and habits for smoother playback and improved UX.s

REFERENCES

- Kubernetes Documentation. <https://kubernetes.io/docs/>
- Grafana Documentation. <https://grafana.com/docs/>
- Github Docs. <https://docs.github.com/>
- Firebase Documentation. <https://firebase.google.com/docs>

THANK YOU !