



M4



# FindIt

Shopping made easier.

André Ribeiro, 112974

Bruno Lopes, 68264

Diogo Falcão, 108712

Rúben Garrido, 107927

Violeta Ramos, 113170

**Orientadores**

**Samuel Silva**

**Bernardo Marques**

**Daniel Ferreira**



Context

What is it?

State of the Art

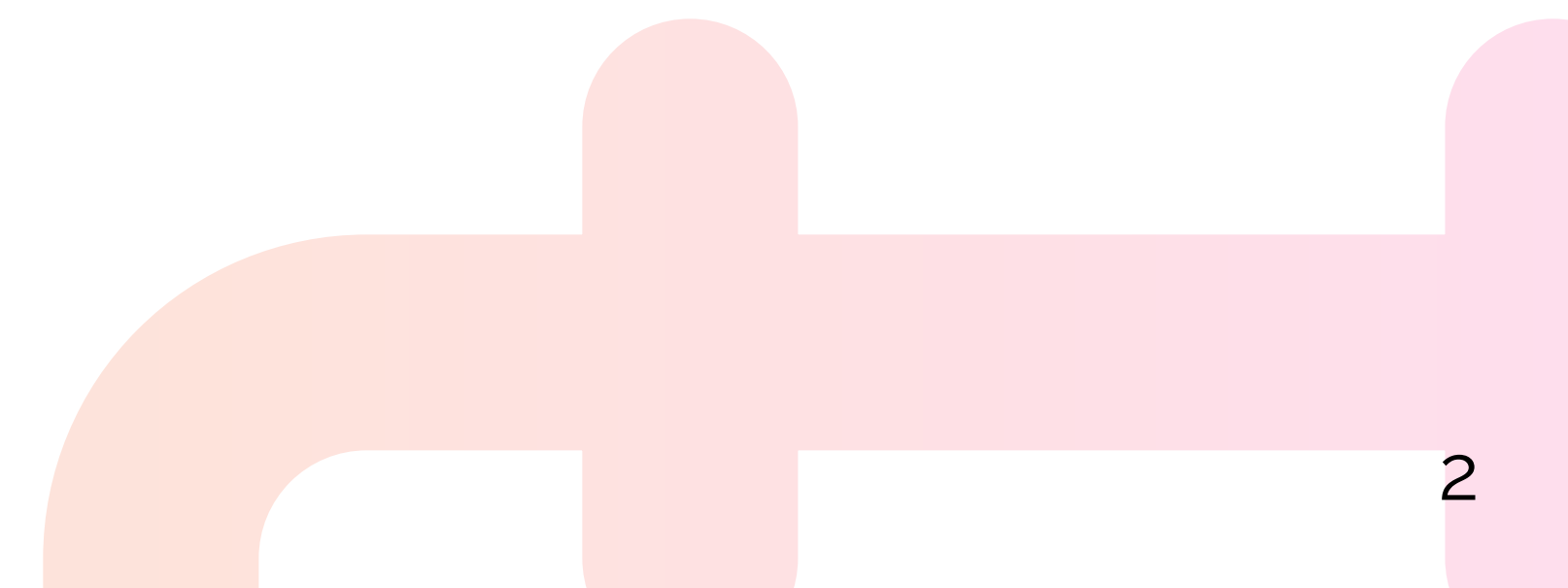
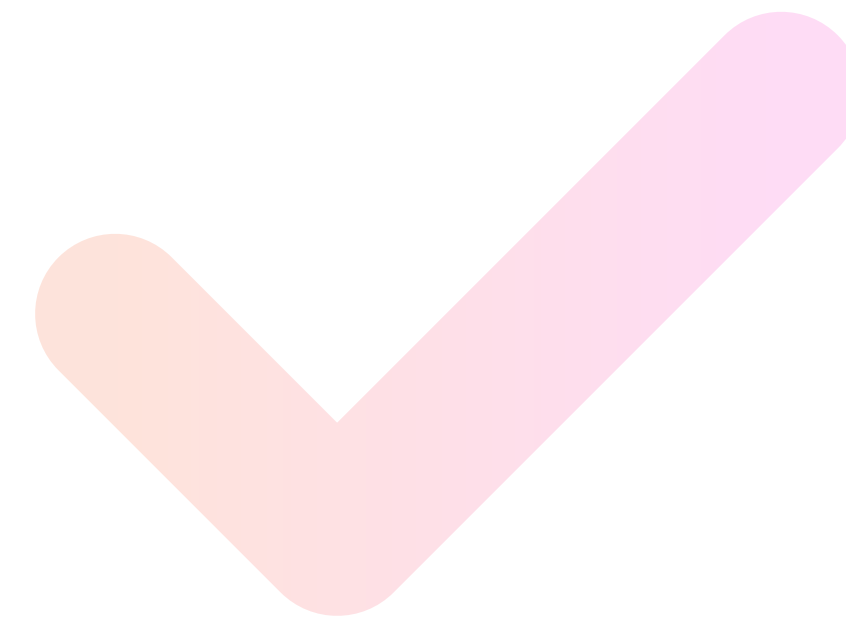
Personas

System Architecture

WOW features

Indoor positioning

Survey



# Project Context



**Choosing where to shop is time-consuming**



**Finding products in stores can be difficult**



**Cumbersome shopping lists**



# What is it?



**Simplifies** shopping list management

**Compares** prices and suggests products

**Optimizes** time and navigation in supermarkets




**Facilitates** stock replenishment and product location

**Manages** products, promotions, and optimizes store organization



# State of the Art



Feature	 Kabaz	 Bring!	 FindIt
List supermarkets nearby	✓	✗	✓
Compare prices among markets	✓	✗	✓
Create groceries list	✓	✓	✓
Find path inside the store	✗	✗	✓
Get recommended products	✗	✗	✓
Get consumption patterns & data	✗	✓	✓
Multi-modal interaction	✗	✓	✓

# Actors & Personas



**Matilde, 68**

Client



Wants to find products easily, w/o looking for them

**Artur, 30**

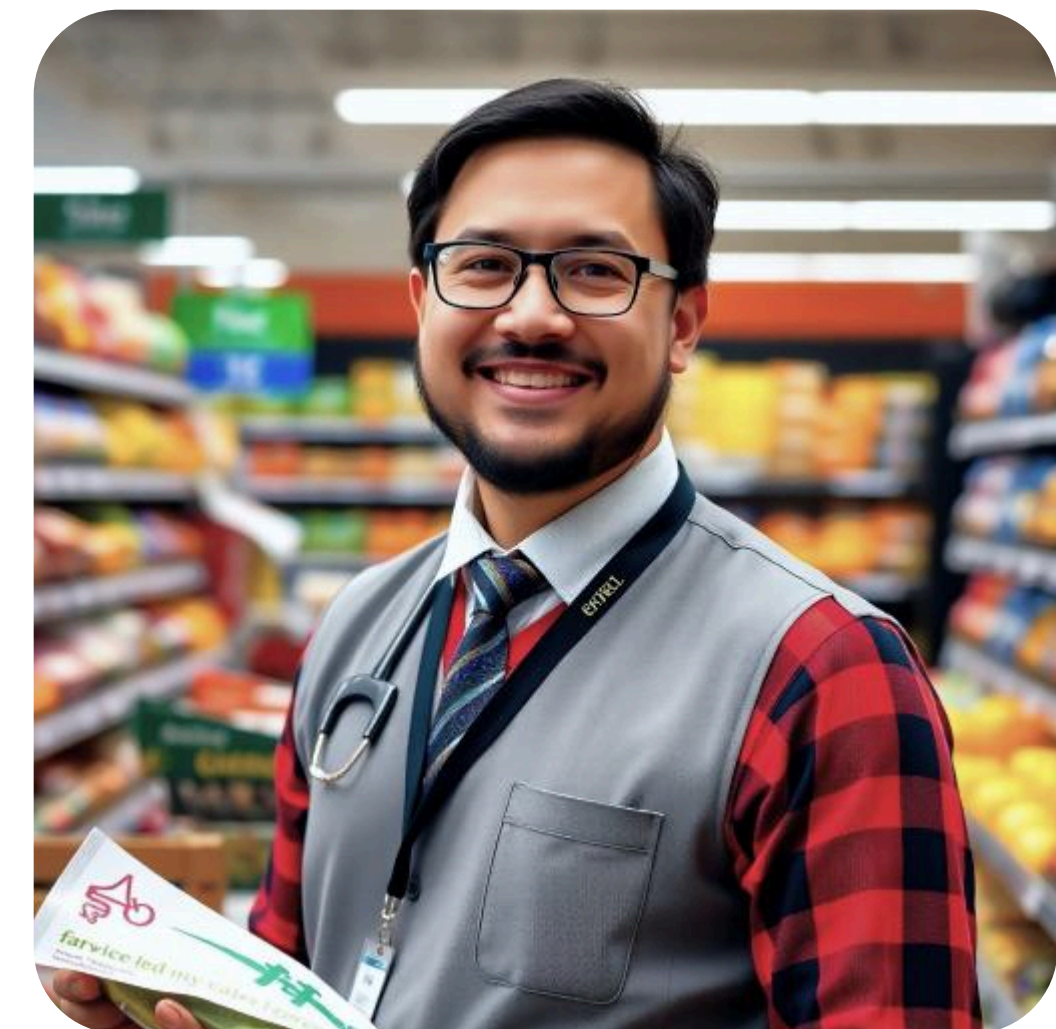
Stock Replacer



Wants to be efficient in stock replacement

**Osvaldo, 45**

Supermarket Admin



Wants to increase efficiency & optimize the supermarket

# Functional Requirements and Use Cases



Create and manage the **shopping list**

**Recommend products** based on previous purchases and current list

**Recommend shopping list** based on past lists

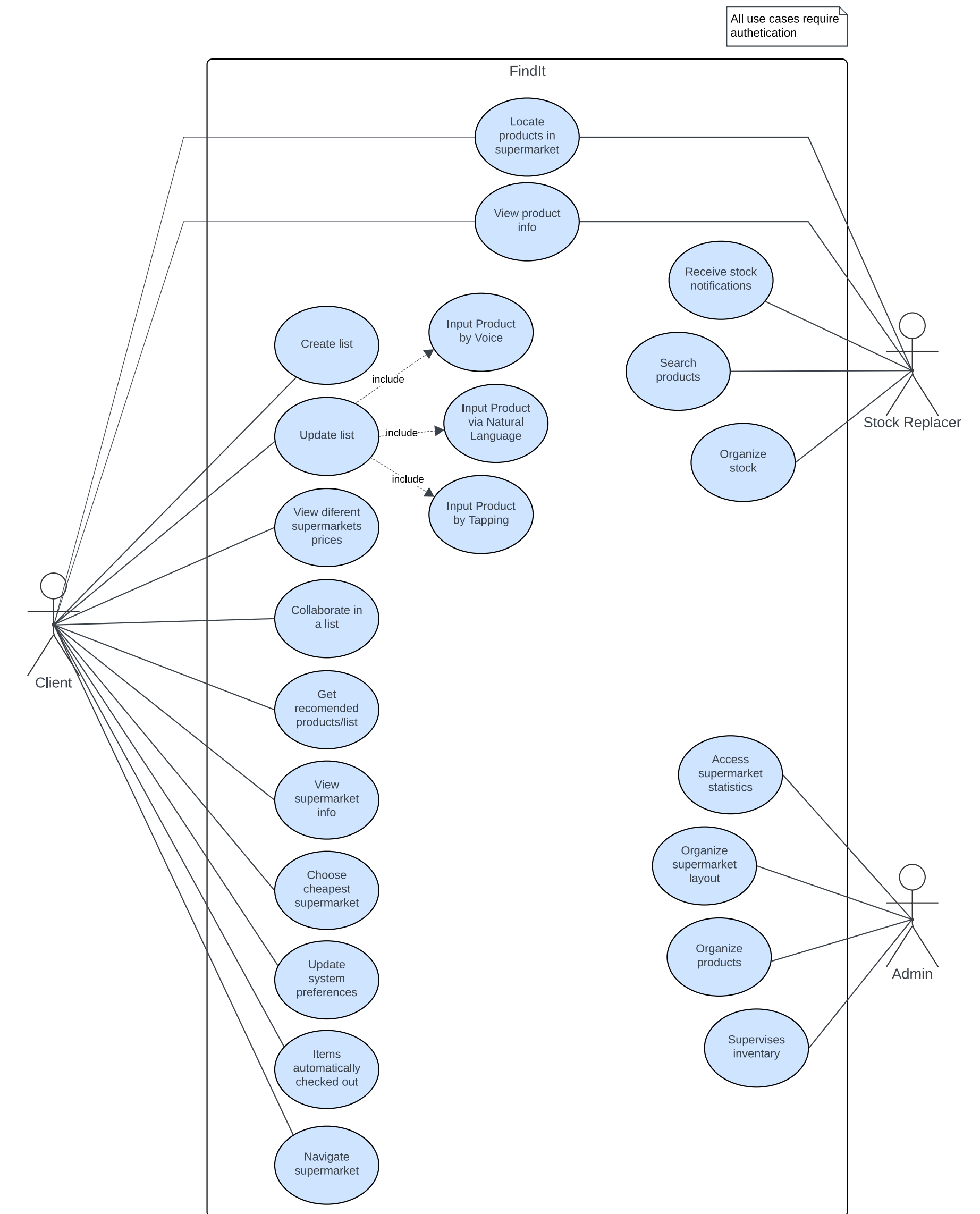
Add products to lists using **multimodal input** (touch, voice, natural language)

Support **collaborative** shopping lists with multiple editors

Show the **cheapest brand/store** for each product

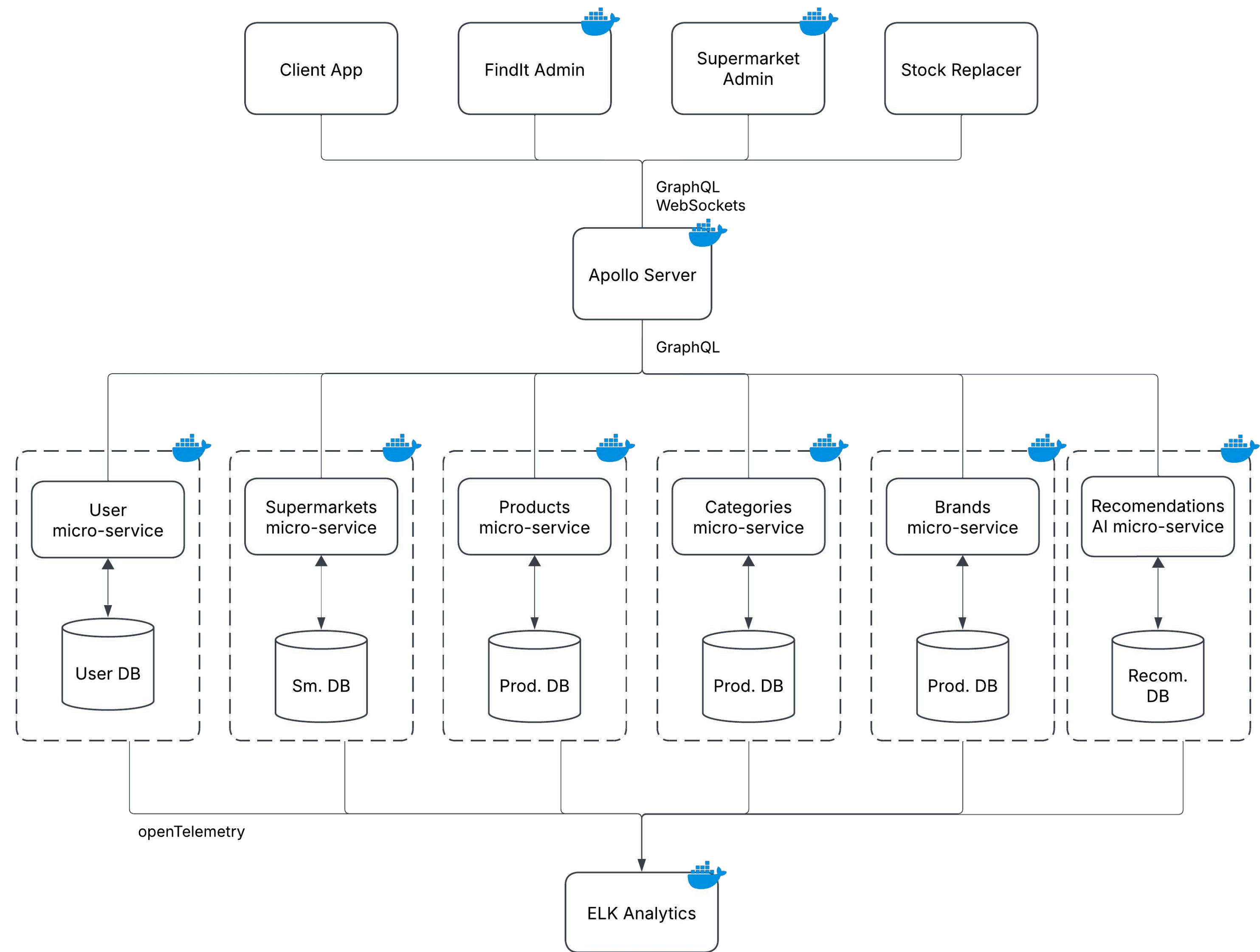
Show the **most efficient path** in the supermarket based on the current list

And 17 more





# Architecture



React



Expo



FastAPI



Apollo GraphQL



PyTorch



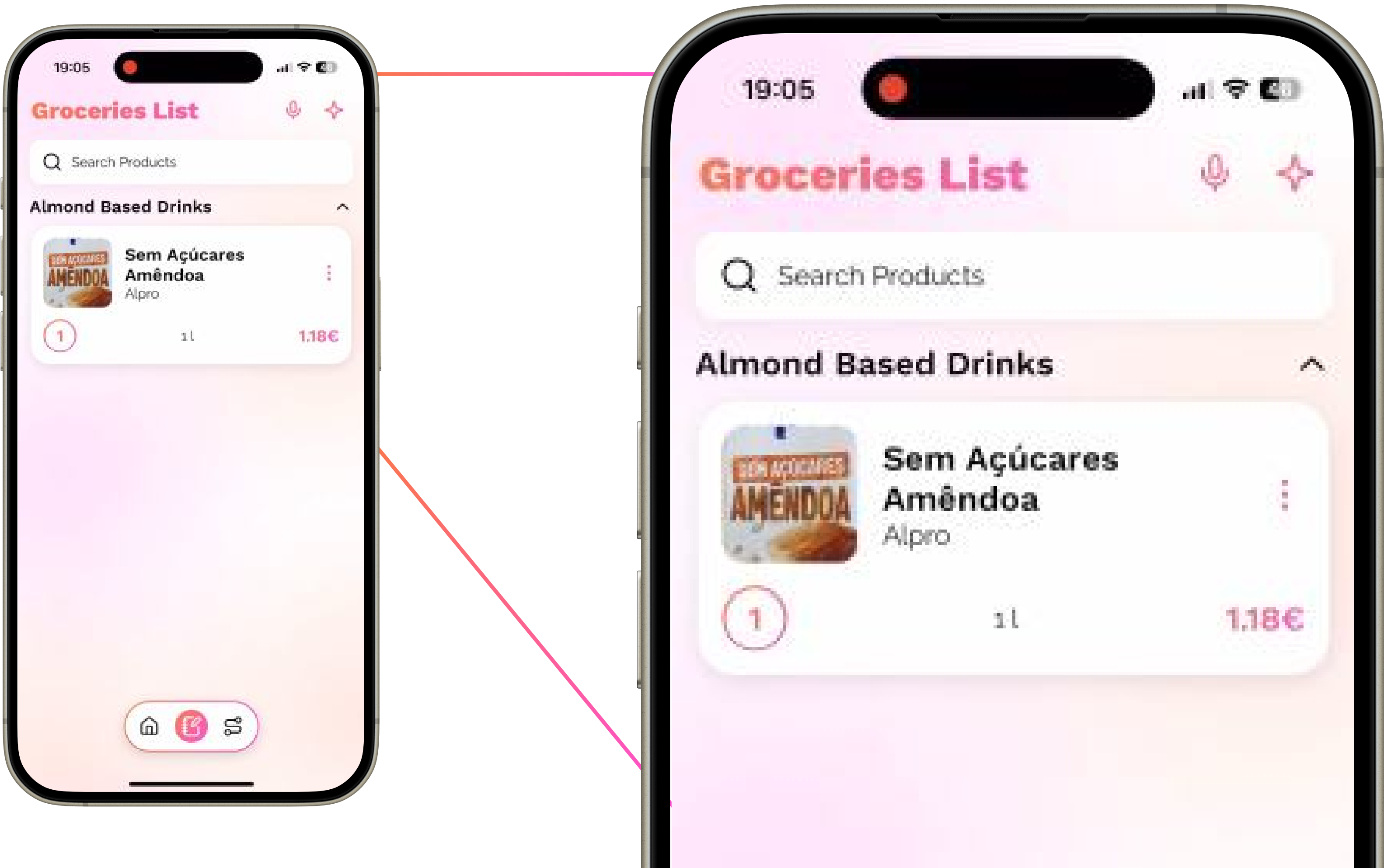
ElasticSearch

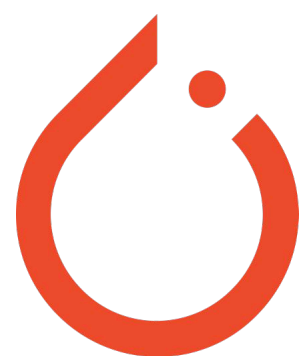


OpenTelemetry

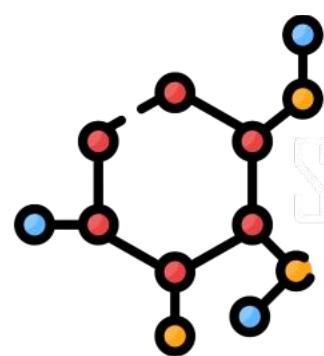


Get recommended products right to your shopping list.

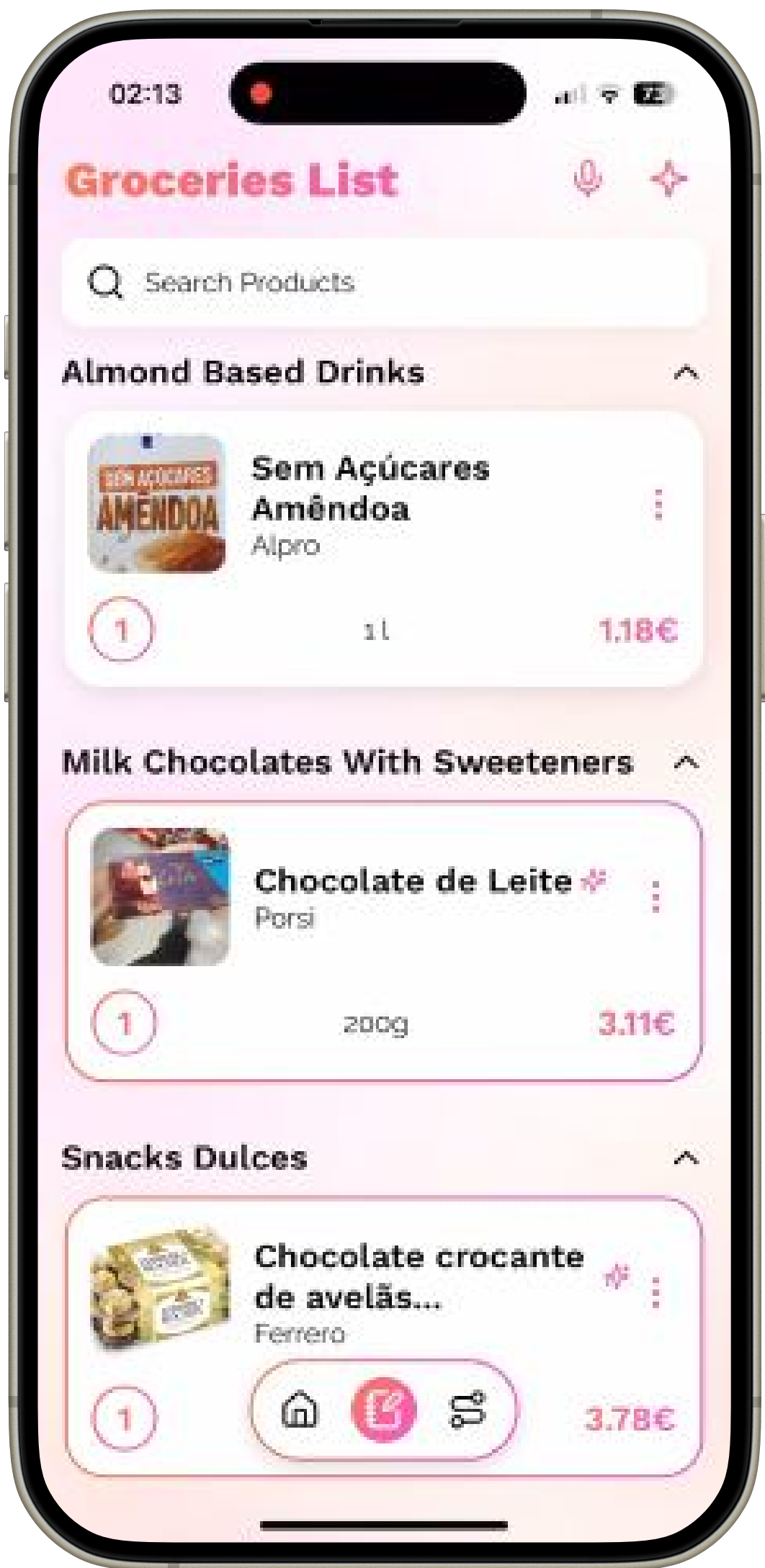




PyTorch



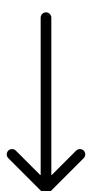
Sentence  
Transformers



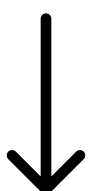
Voice



Text



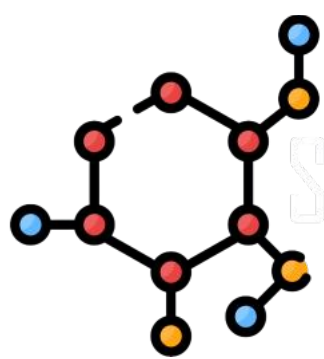
ML model



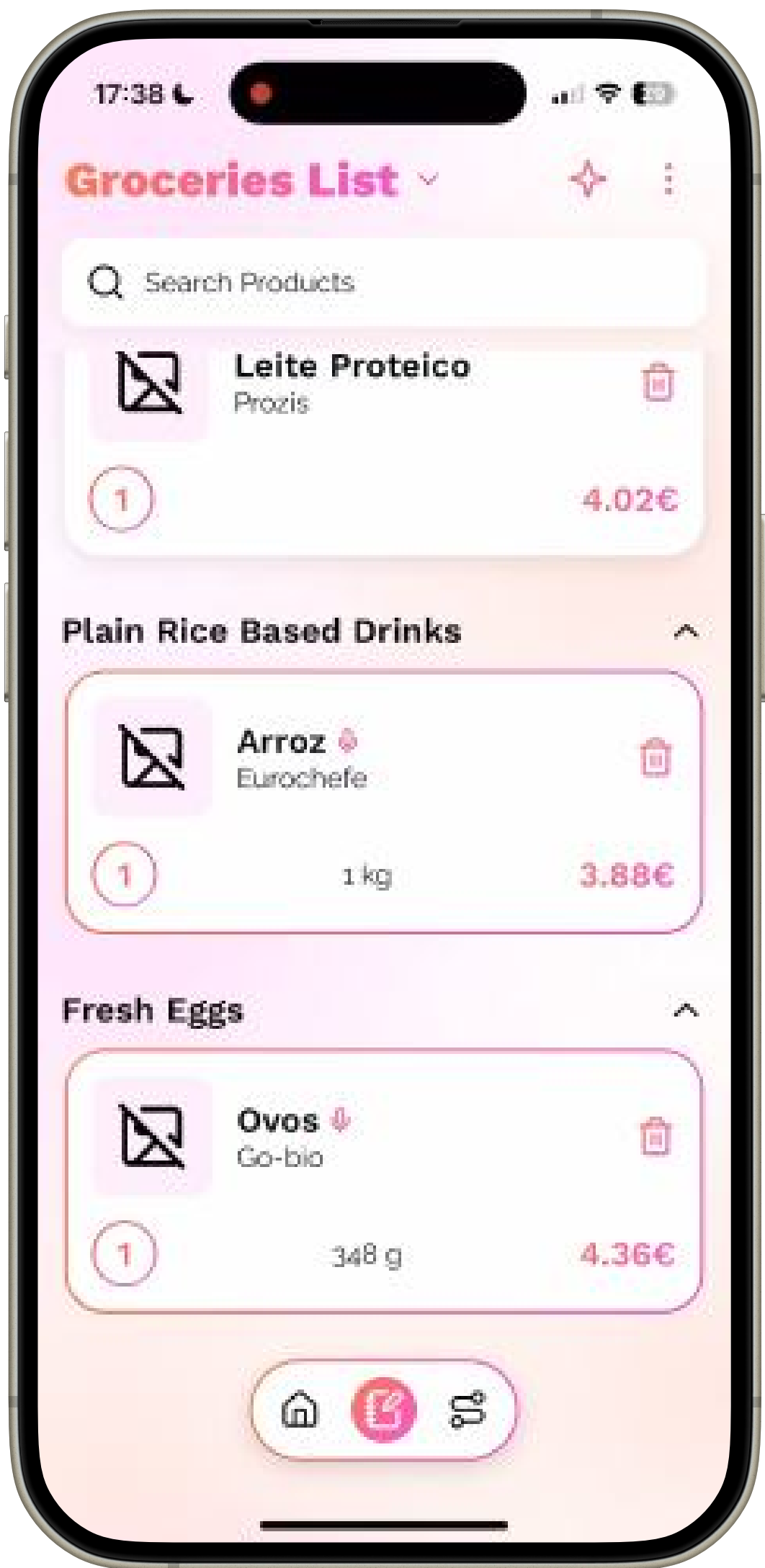
Products



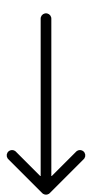
PyTorch



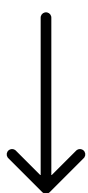
Sentence  
Transformers



Text



ML model



Products

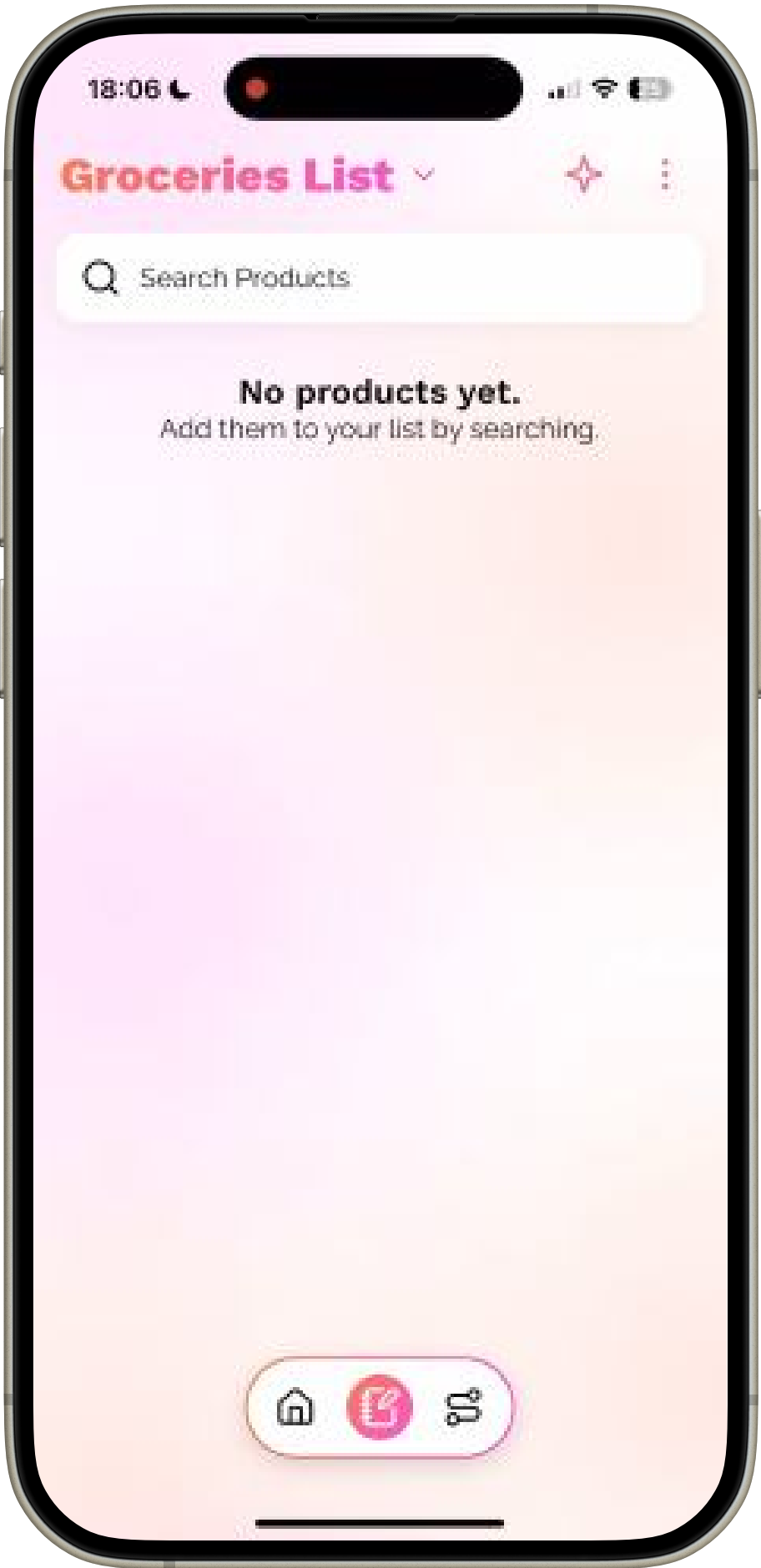
# WOW Features

List friends

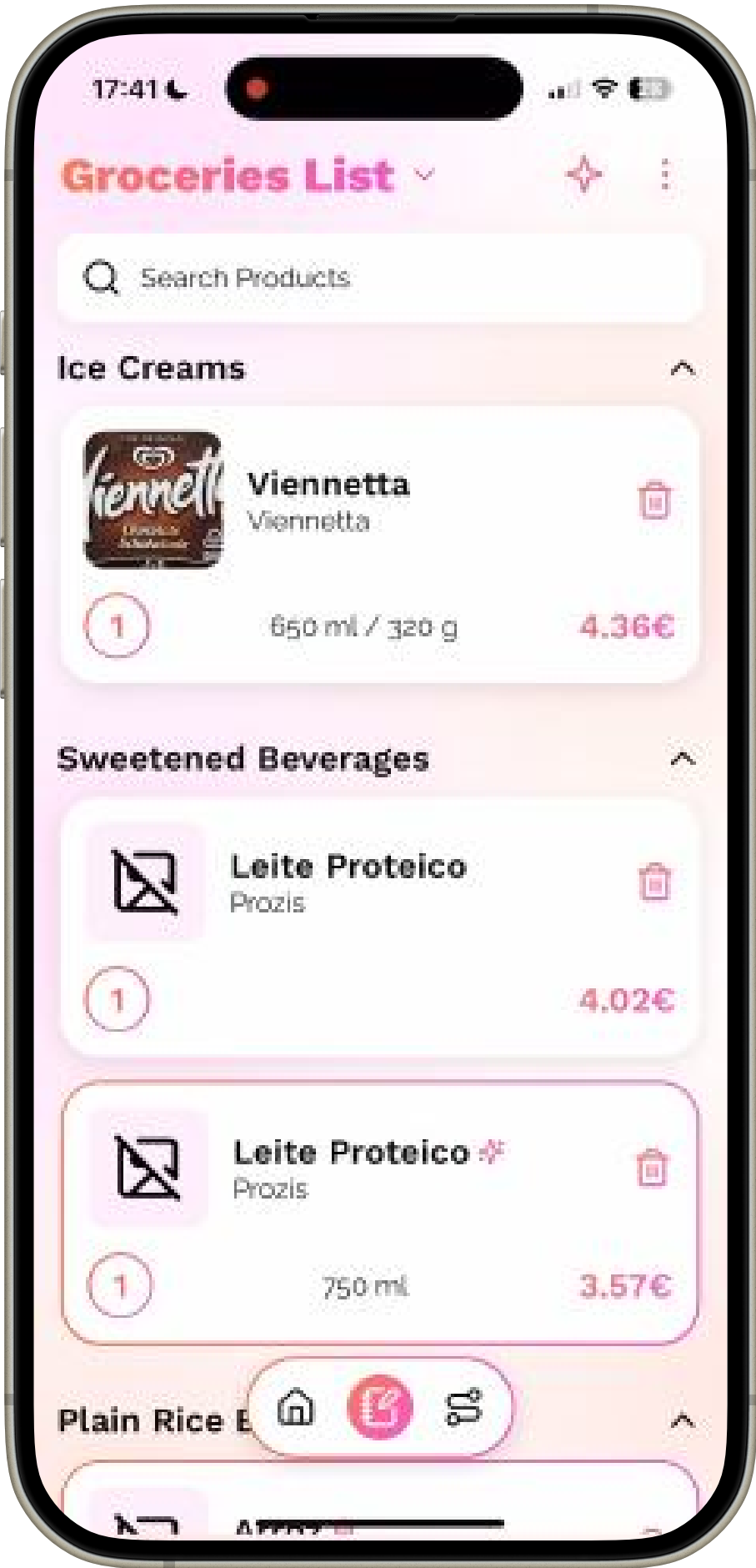


Share your list with your friends so you can **collaborate together**.

Selecting a  
**shared list**

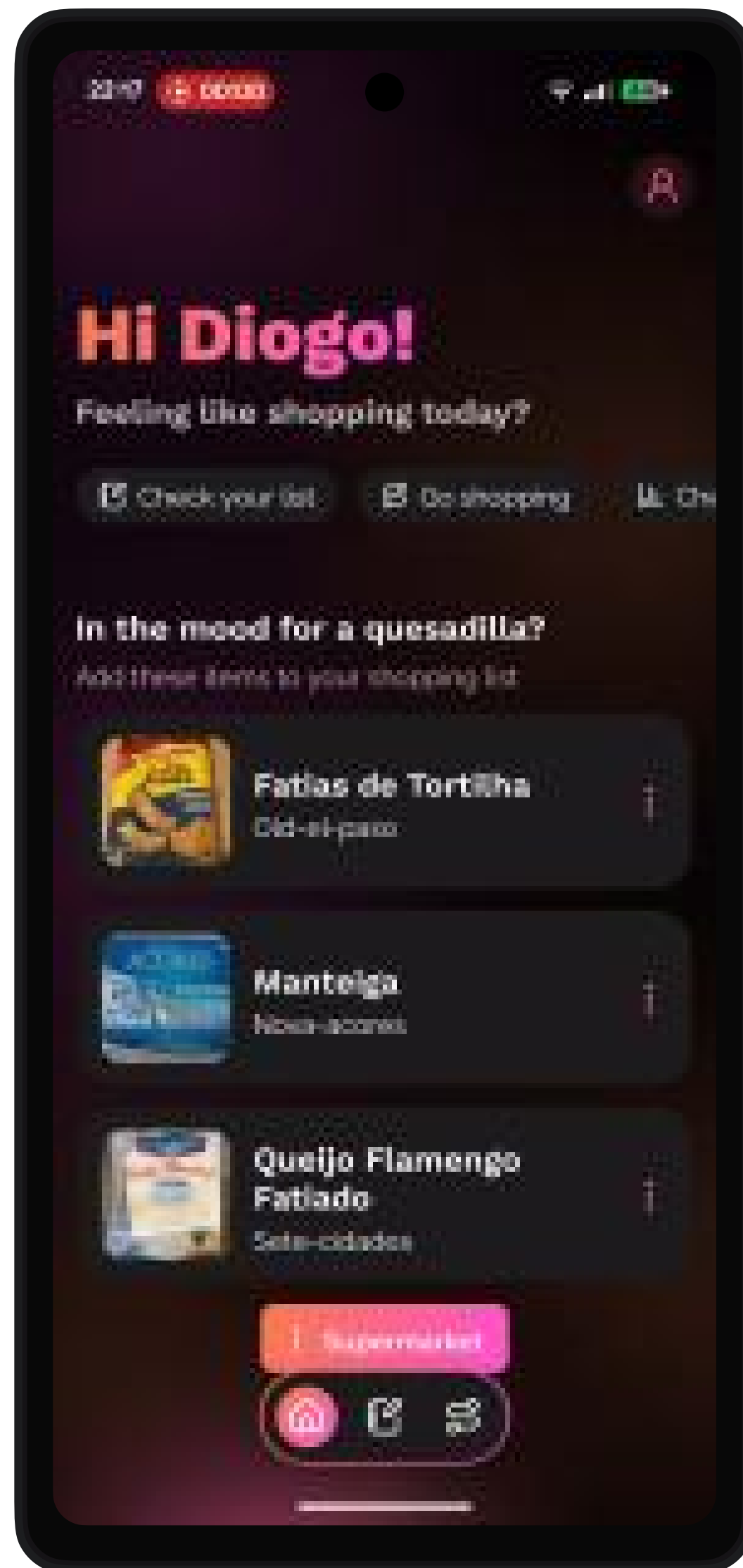


**Sharing a list**  
with someone

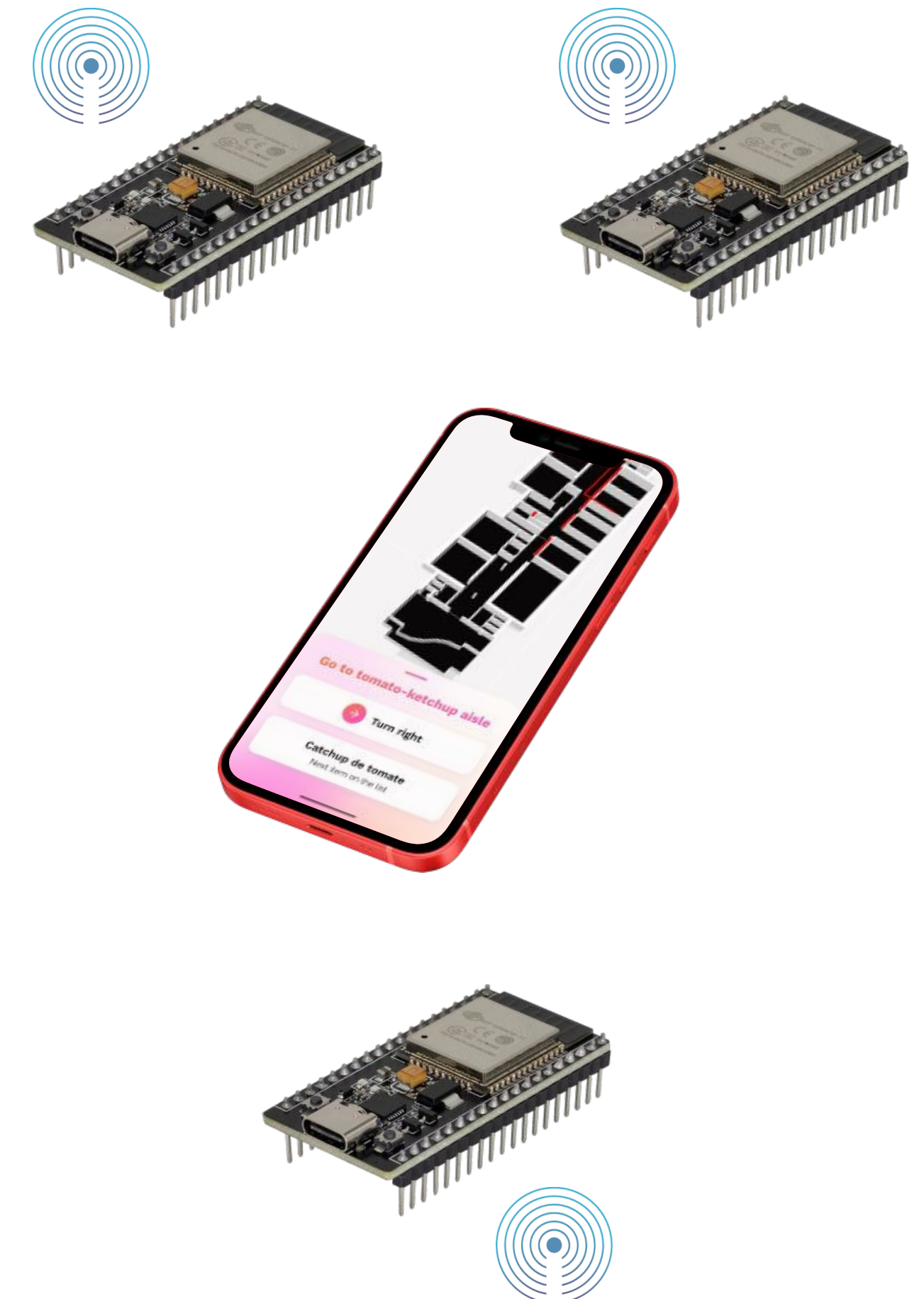




# Indoor positioning wow, navigation



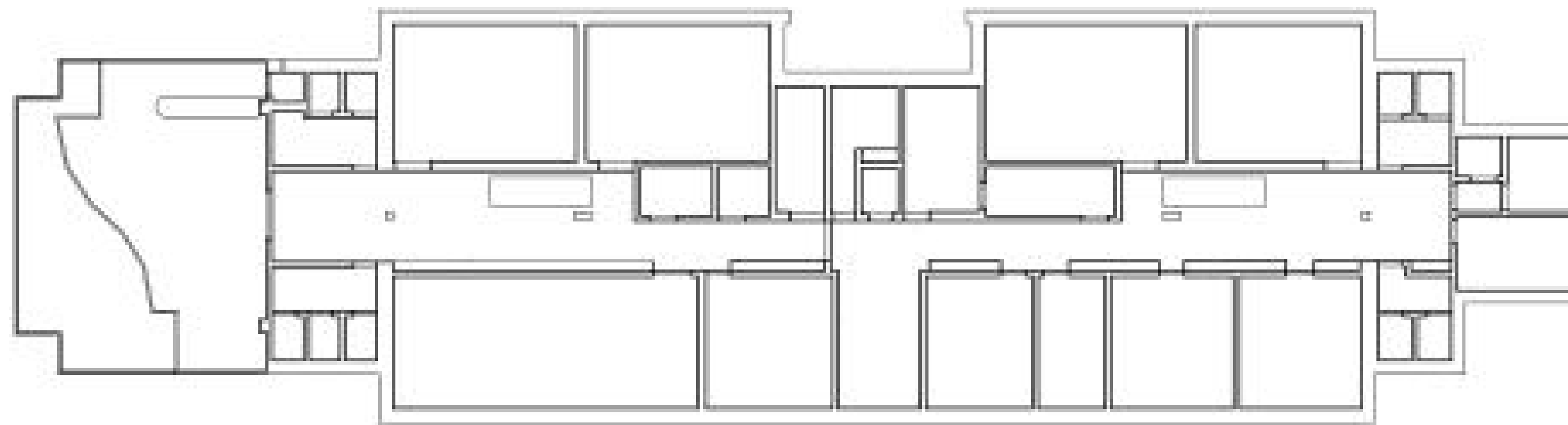
I am at the supermarket, what now?





## There's a new supermarket, what's the next step?

- 1 Create/Get a vectorized map plant



- 2 Find best positions for the ESP32 devices



- 3 Transform into GeoJSON

```
1  {
2    "type": "FeatureCollection",
3    "features": [
4      {
5        "type": "Feature",
6        "geometry": {
7          "type": "Polygon",
8          "coordinates": [
9            [
10             [-8.660046962434233, 40.63313811631854],
11             [-8.660048819747457, 40.63313811631854],
12             [-8.660046962434233, 40.63313564347258],
13             [-8.660046962434233, 40.63313811631854]
14           ]
15         }
16       },
17       ...
18     ]
19   }
20 }
```



## 77,8%

of questioned people go to supermarket  
**weekly**

## 4.67 ★

overall rating **out of 5 stars**

## 100%

of questioned people think that is **useful to have all this features in a single app** rather than 2 separated apps



# Team



**André Ribeiro**

DevOps



**Bruno Lopes**

Product Owner



**Diogo Falcão**

User Experience



**Rúben Garrido**

Architect



**Violeta Ramos**

Team Leader

## Advisors

**Samuel Silva**

Advisor

sss@ua.pt

**Bernardo Marques**

Co-advisor

bernardo.marques@ua.pt

**Daniel Ferreira**

Co-advisor

danielmartinsferreira@ua.pt



# Thank you!

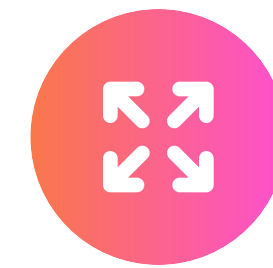
Visit our microsite at [findit-app.pt](https://findit-app.pt)  
or by scanning the QR code.



Thank you to everyone who supported us — this project was only possible because of you!



**Goals Achieved**



**Scalability**



**Where We Excelled**



**Innovation**