

# Smart Fridge

*Keep you close with people you care about*

# Objectives

# Goal

- To understand elderly people's **eating habits, lifestyles, and hobbies**
- To understand how **modern technology** embed in **home experience**
- To understand the recent **market place for IoT**

# IoT & Healthy Lifestyle



- The Internet of Things (IoT) – a technology paradigm anticipated to be a global network of machines and devices capable of interacting with the internet and each other – has been hyped by many academics and manufactures as a new wave of technological advancements that will improve, or at least change, many aspects of modern life.
- There have already been some early attempts at creating Smart Fridges intended for household use however, though many thought of the Smart Fridge as a seemingly obvious opportunity to introduce such technology into homes, these attempts have been branded as commercial flops (Kuniavsky, 2010).

# Secondary Research

## Current Market - Basic fridge

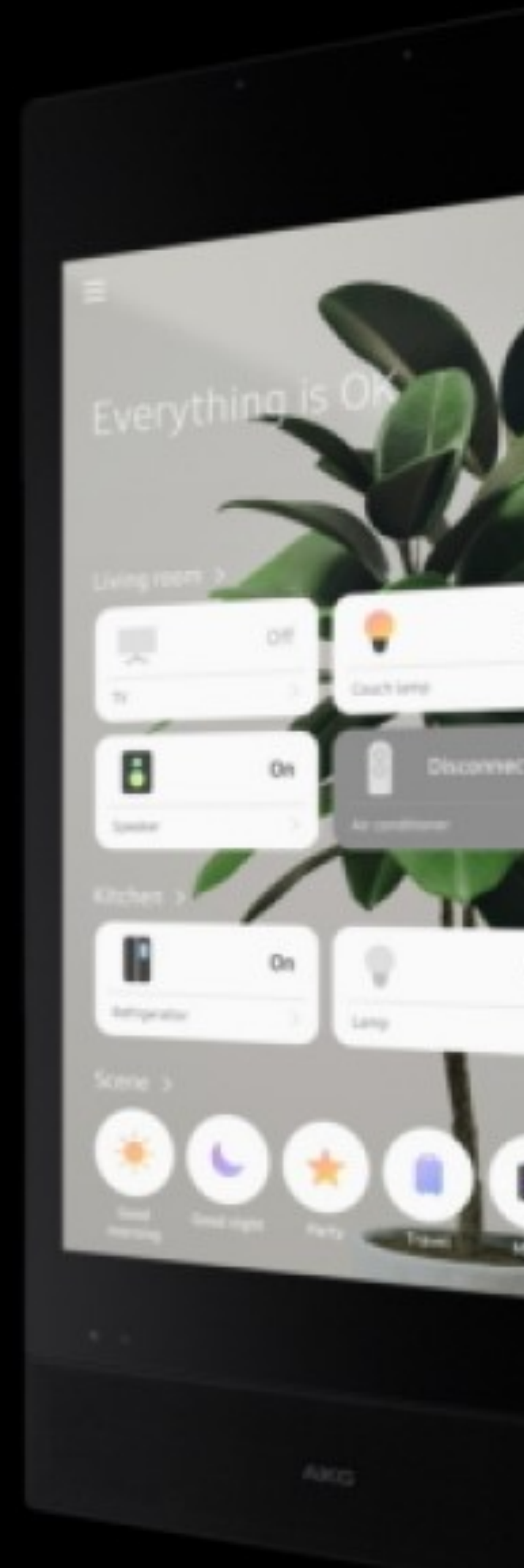
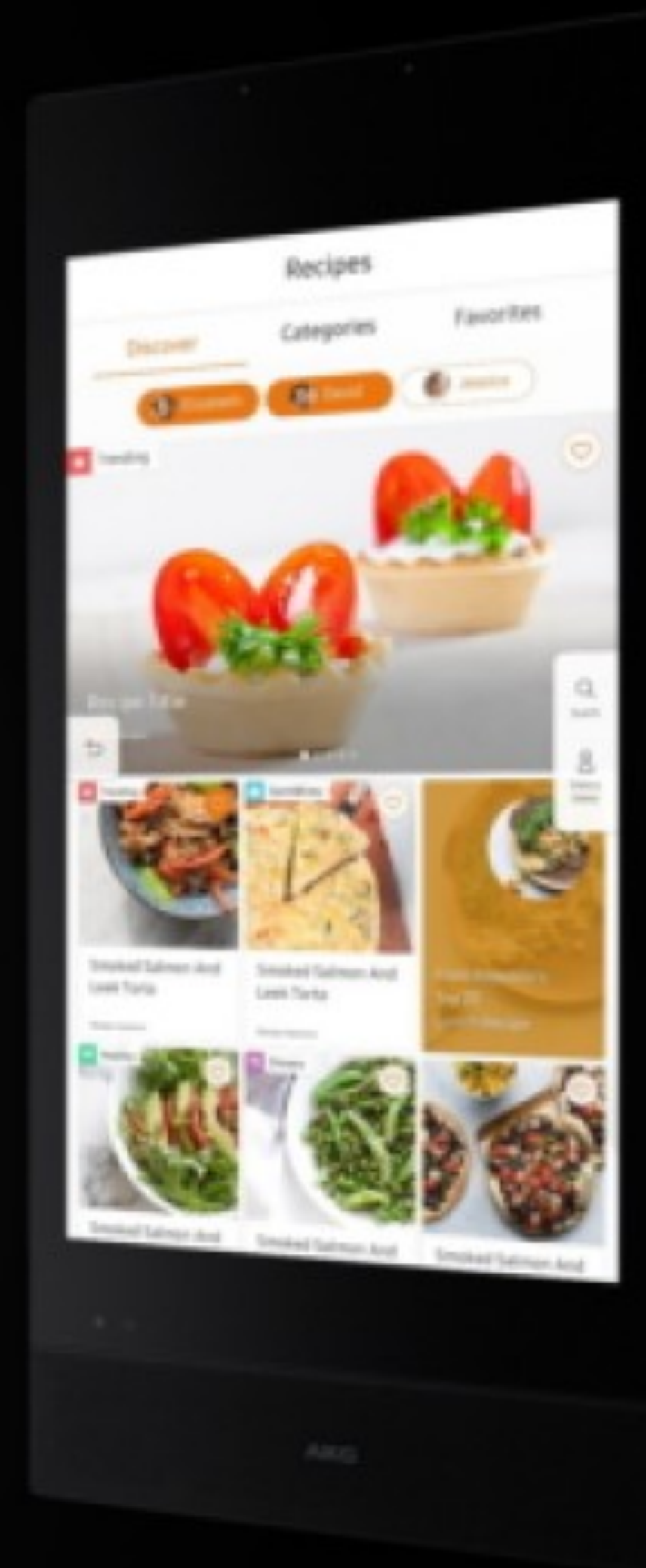
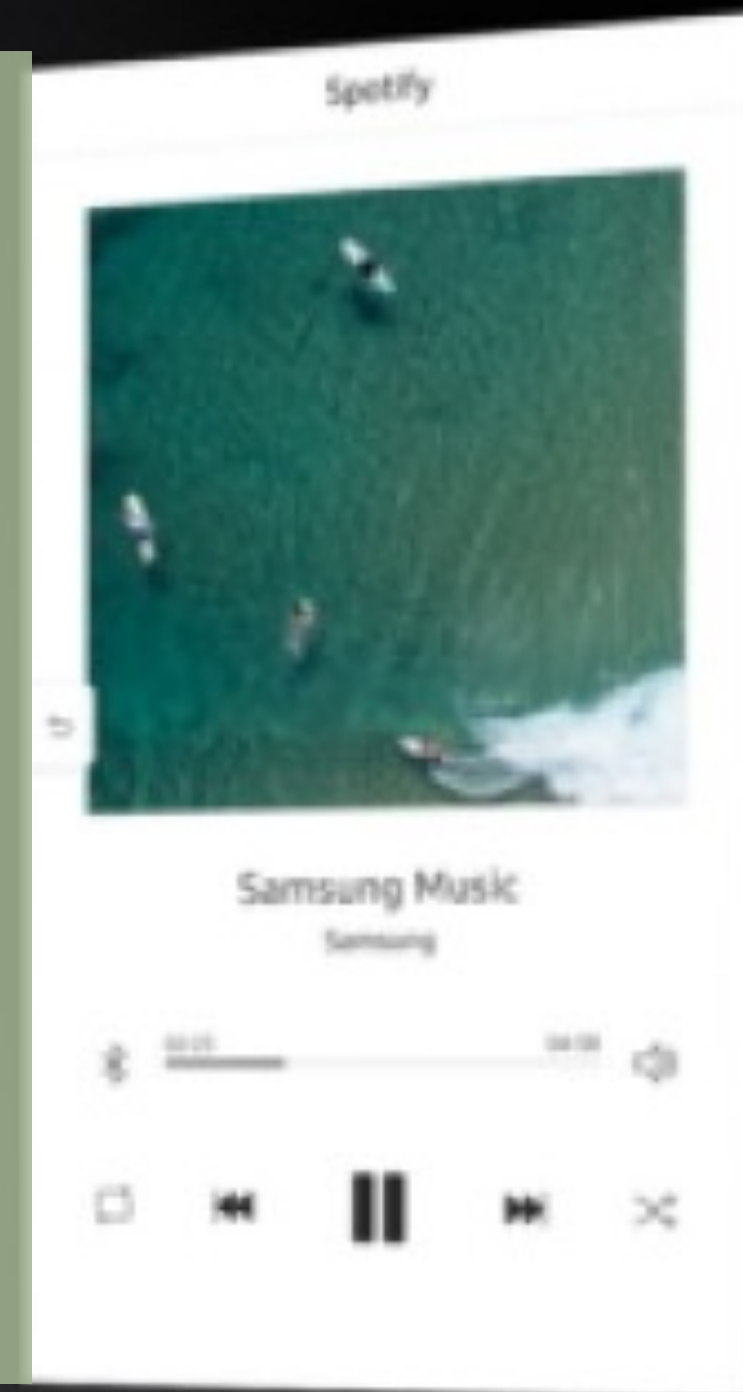


Basic fridges are often hard to organize and can easily become cluttered. It is sometimes confusing whose food is whose or what food is in the back of the fridge. Users may often find themselves labelling their food or containers but still having their food stolen – a likely case if this fridge is in student accommodation. The lack of organization also means we often find some food has forgotten and expired. Leftovers especially, are hard to estimate when it bounds to be out of date. It is common that a member of a

household does the weekly shopping, thus it requires a lot of time on meal planning. Also they may forget what is in the fridge when at the supermarket, leading buying duplicate products. Basic fridges require a constant check if there is enough food in the fridge – it is estimated that the average person visits their fridge 20 times a day.

## Current Market - Samsung Smart Fridge

The internet fridge though existing has limited functionality and visual appeal. This product has been unsuccessful because the consumers had seen it as unnecessary and expensive accessory. There are many features that not needed to be added on a fridge, making it complicated and time consuming for user, which is contradictory to the aims of a smart fridge.



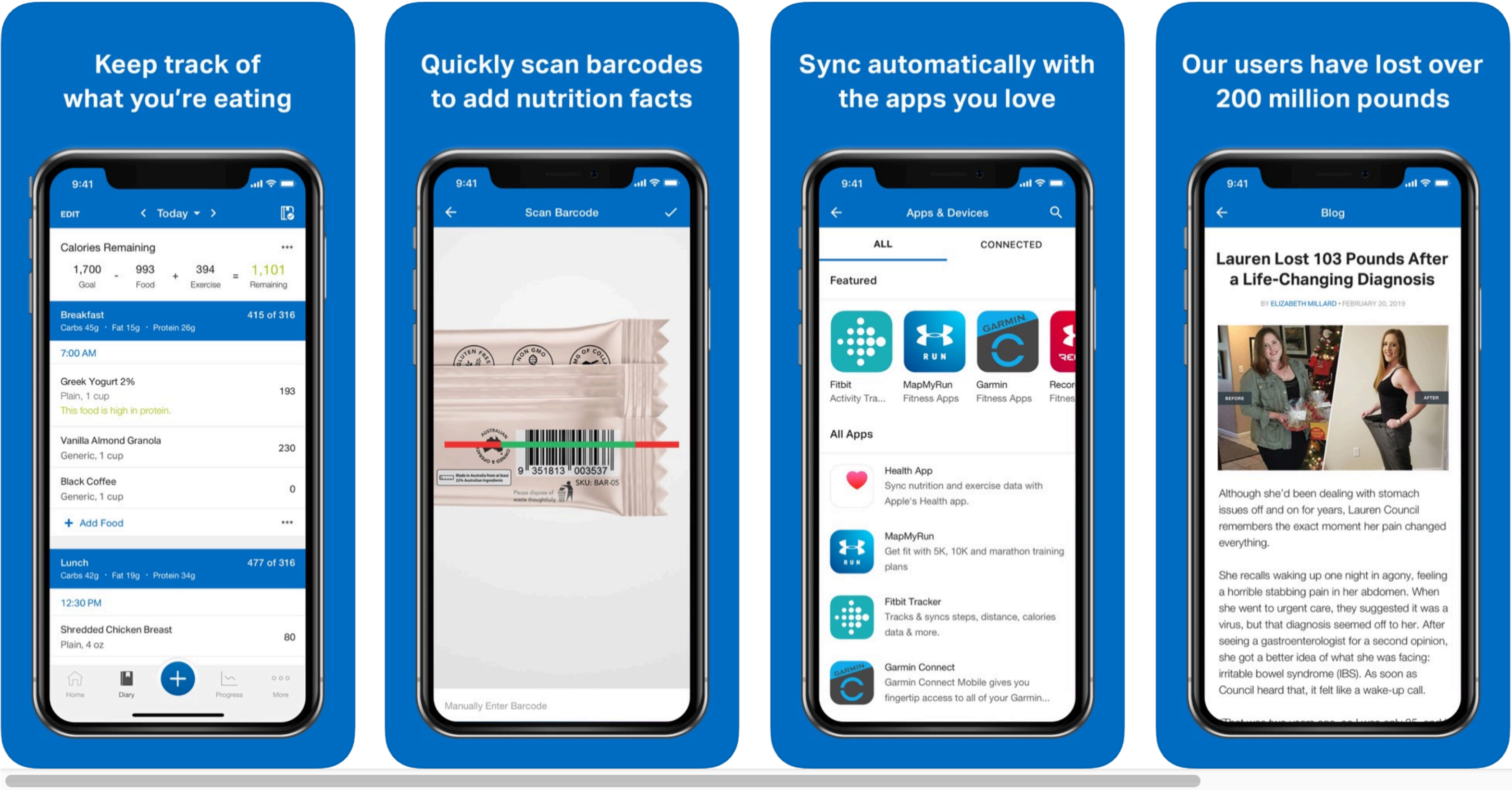
## Current Market - LG Internet Refrigerator



This refrigerator launched in 2000 was also an unsuccessful product. The problems solved were obscure. For example, many juice bottles are transparent, providing a visual reminder that a purchase is needed eventually; vegetable drawers are similarly transparent and contain items often removed from packages, thus this was the reason why bar codes were eliminated for inventory. Moreover, the ability of the device to remind users of upcoming purchases when there are often multiple buyers in a household who communicate informally is not typically addressable as a use case.

# Current Market- My Fitness Pal App

Having this feature on a smart fridge would reduce the time and dedication, by introducing a built in scanner that does not require manual product keying. Also the idea of a mobile app means that people can access information about their fridge on the go allowing for a greater range of possible functions. As the smart fridge will also be used to track users diets, it make sense to have a connected mobile app as users will not always be eating meals at home or from the food stored in their fridge.

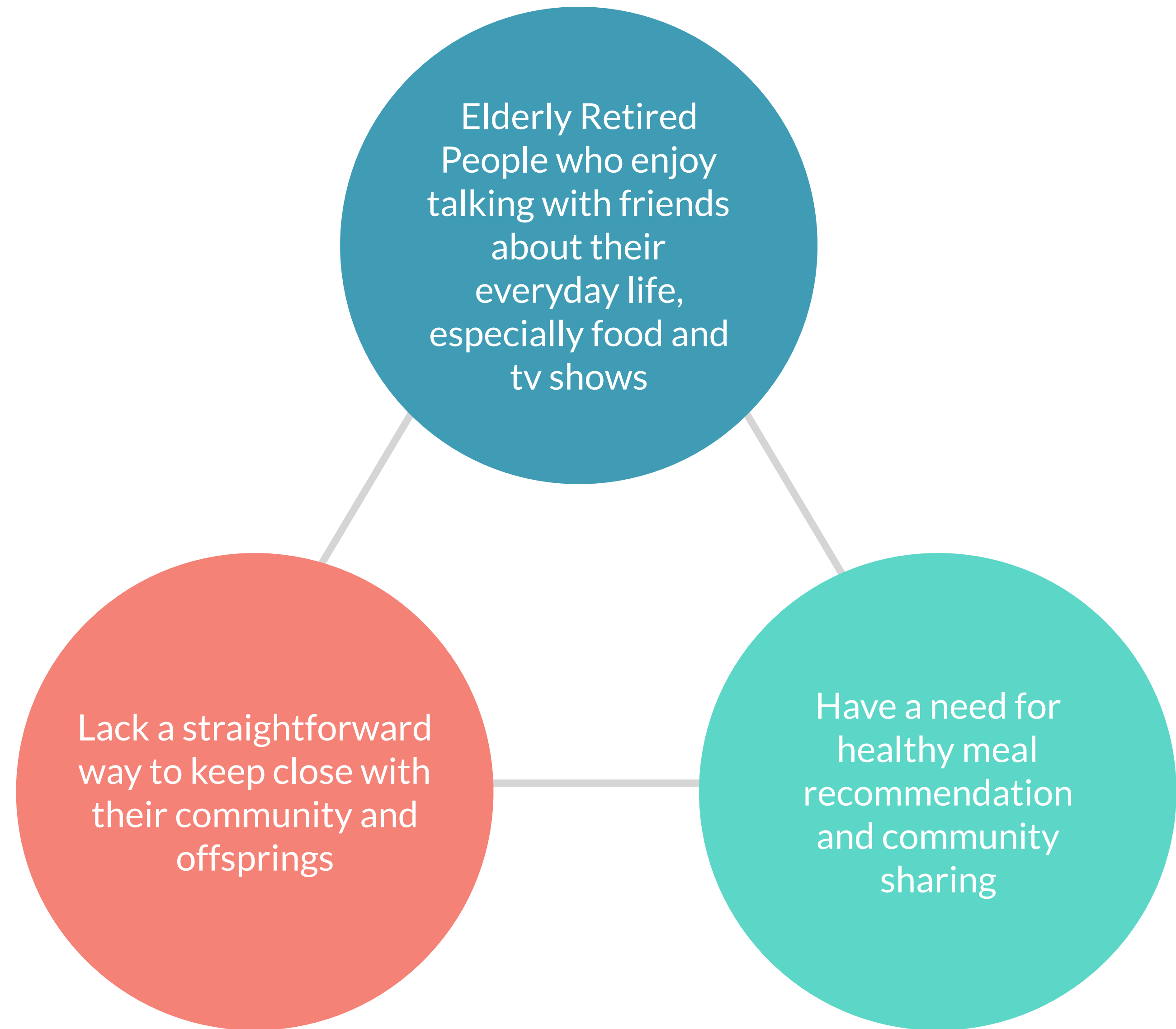


# Primary Research

# Hypothesis 1

We believe that **elderly retired people** who **enjoy cooking** but sometimes feel **lonely** have a need for **exploring new menus** and **sharing achievements** with friends and relatives

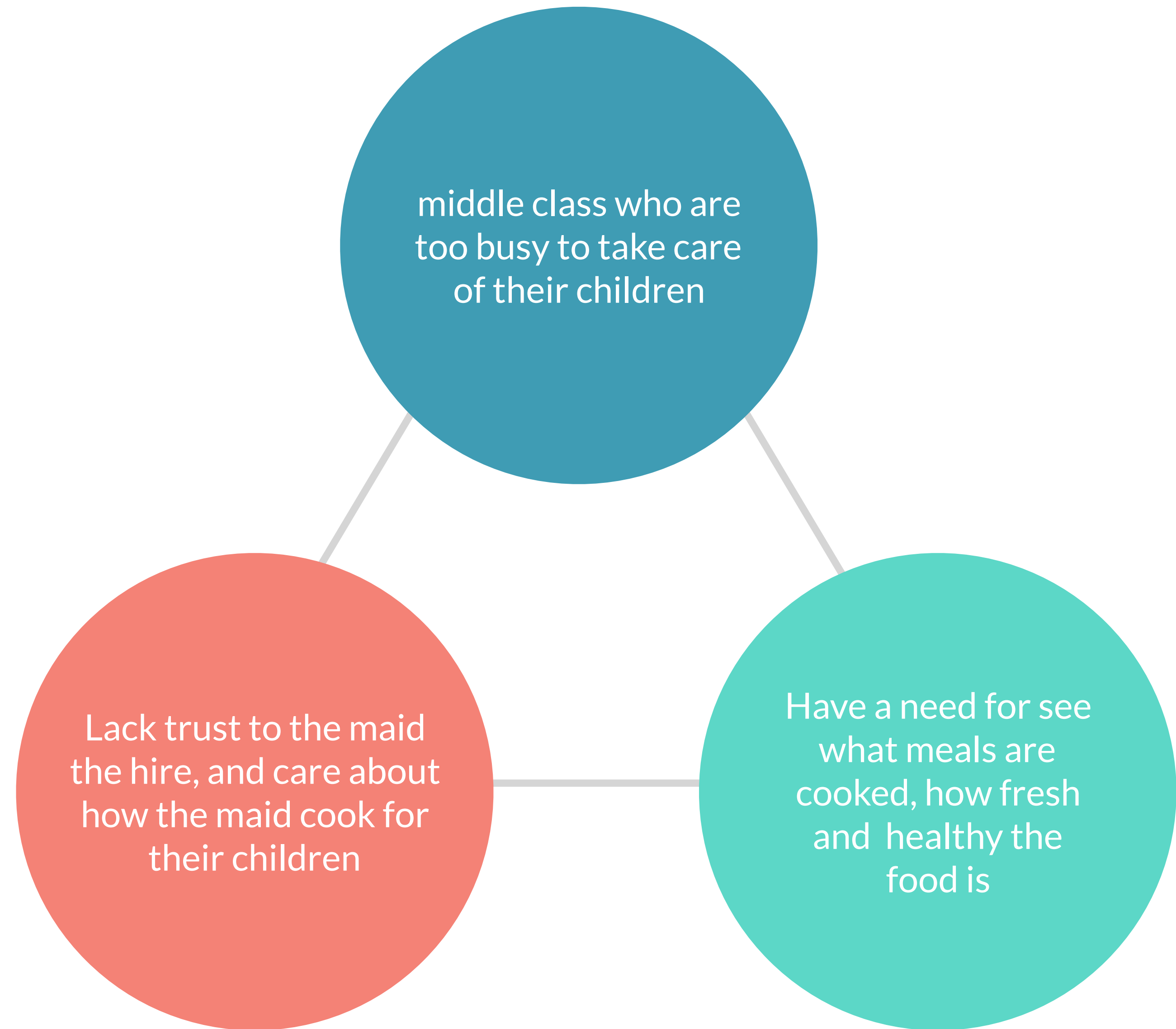
# Molecule 1



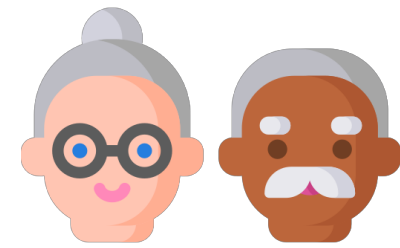
# Hypothesis 2

We believe that **middle class** who are **too busy to take care of the children** usually **hire a maid** for help. They sometimes **lack trust** to the maid and care about the **nutrition of the meal** for their children.

# Molecule 2



# Interview



2 elderly retired people



1 middle school student



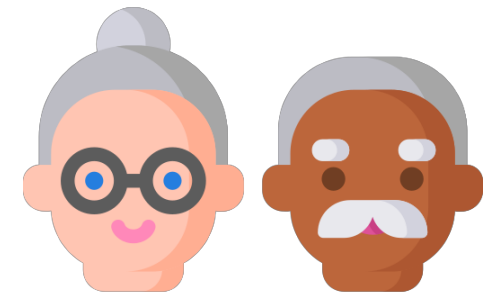
1 middle class businessman



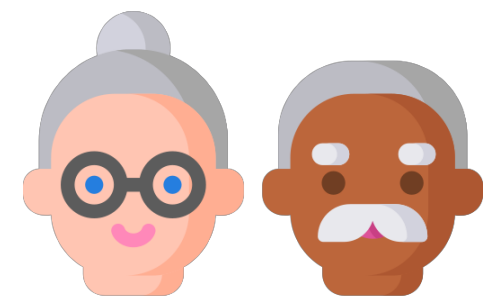
1 housewife



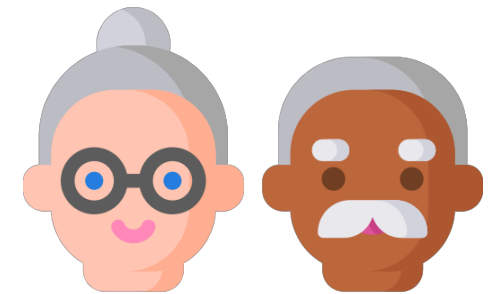
1 maid



Cooking is a pleasure for me. I feel fulfilling especially when someone praise the food!



We like sharing what we cook and learn from each other



I'd like to learn more about how to cook and, just like new skills. This makes me full-filling!



I want my daughter to back to home to eat, but she is just too busy with her work...



My employer always send the receipt to me to cook for her kid, because she care about health and nutrition



I have a lot of time. I like cooking, for my kids and for pleasure. Learning new receipt is enjoyable. I usually browse instructions and tutorials

## Insight

# 1

Elderly retired people and housewives who have a lot of leisure time, **treat cooking as a hobby** and feel **fulfilling** while being **praised** by others.

Insight

2

Here is a **trust issue** between  
**maids and employers.**

Insight

3

The relationship between busy **business**  
**people** and their **kids** is **not close**

# Prototype

# Feature List

Need

Cooking  
tutorials

Community  
sharing

Nutrition fact  
visualization

Notification  
board

Grocery  
shopping

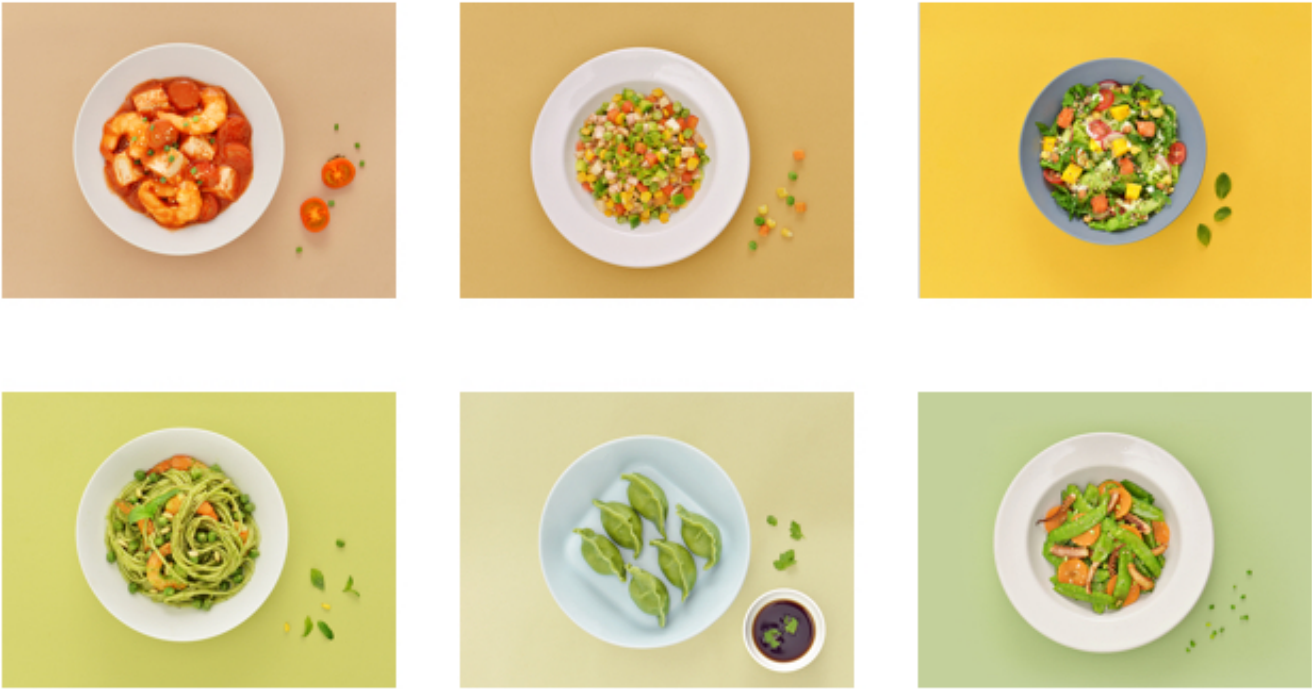
Healthy  
condition  
report

Recommended  
recipes

Functionality

Expiration  
date  
notification

Recommend Menu



Tutorials

Step 1

This is intruction. This is intruction. This is intruction. This is intruction. This is intruction. This is intruction.

Step 2

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Health Reports



# Next Step: Validation