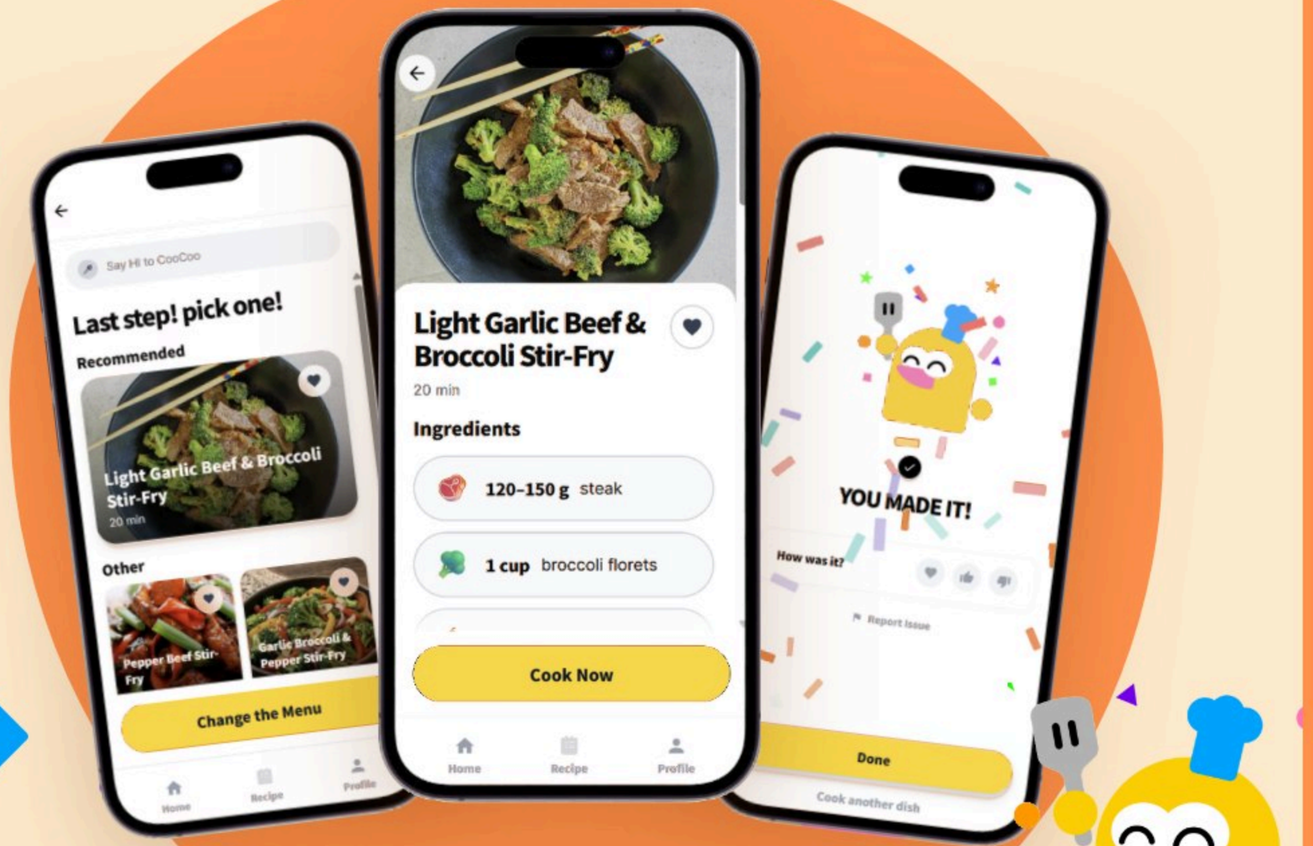
COOCOO

AN AI KITCHEN COMPANION
THAT MAKES EVERYDAY COOKING SIMPLE



GROUP PROJECT

DIRECTION/
UX Design
Product Design

ROLE/
UX Designer

TEAMMATE/
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COURSE/
COMMLD 515, UW MCDM

TIME/
2026.01-2026.03

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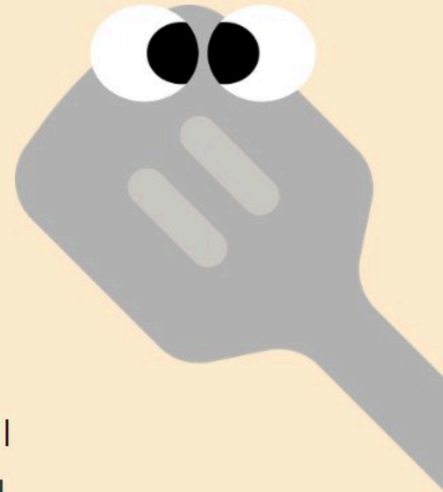
06. High Fidelity & Prototype

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01.
Product Pitch





The problem

You buy groceries on Sunday with good intentions. By Thursday the spinach is slimy and you can't remember what you bought. Recipe apps assume you already know what to cook.

What is CooCoo?

A cooking app that starts from your fridge, not a recipe search. Snap one photo; it keeps track and warns you before food goes bad.

"Your spinach has two days left. Here's a 15-minute pasta."

How it helps

Three recipes a day from what you have, at your skill level. The mascot talks you through each step so your hands stay free, and every finished meal earns a sticker.



Works with any fridge and the phone you already own. No $3,000 smart fridge required.

02.
Research



Sizing the motivation gap

CooCoo changes a behavior, so I sized the people who want to cook but don't, not the food they waste.

11.61M	US renter households with a householder aged 25–34
× 80%	don't cook as often as they'd like
= 9.3M	households with the gap
× $72	a year, the habit-app subscription band (Duolingo Super: $60–96)

$669M

a year: the market CooCoo can charge for

What the gap costs them

$18.2B a year on takeout

$3.3B a year in groceries that spoil

Starting in Washington

333,686 of these households, about $19.2M a year, and close enough to interview users at UW.

Sources: US Census ACS 2024 (B25007); Current Backyard survey 2025 (n=6,500, vendor survey); FinanceBuzz / Spoke; ReFED. The 80% and $72 are estimates: this is potential demand, not proof people will pay.

Who else is solving dinner

Apps

Samsung Food
Recognizes ingredients from photos, but hands-free cooking and pantry tracking are paid extras. It plans from recipes, not from what you actually bought.

NoWaste
Tracks expiry dates, but you type almost everything in yourself.

SuperCook, BigOven
Find recipes by ingredient. No heads-up before food goes bad.

The real competition

Takeout
One tap, four nights a week. This is the habit to beat.

Meal kits
About 3× the cost of cooking from scratch. People pay to skip deciding, but kits ignore what's already in the fridge.

Doing nothing
Free and easy: forget what's in the fridge and throw out the slimy spinach.

CooCoo starts from what you already bought, warns you before it spoils, and cooks with you hands-free.

It's an energy problem, not an information problem

38%

ordered takeout with groceries at home, because they were too tired to cook.

Tempo, 2026 (n=1,000 US adults aged 20–40)

51% vs 52%

51% of Gen Z like or love cooking, but only 52% cook four or more times a week.

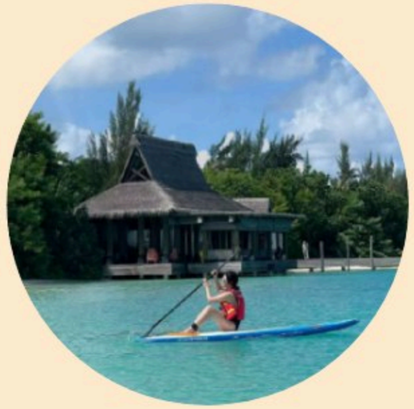
FMI, 2025

So CooCoo is built for 7pm, when you're tired

- Nothing to type and nothing to decide: tonight's plan is ready.
- Hands-free voice guidance, with 15-minute recipes by default.
- Tokens that only add up. No streak to break, so missing a day costs nothing.



Persona



"I'm not against cooking. I just don't have the energy to decide, cook, and clean after a long day."

AGE	24
STATUS	Student, single
FROM	China, now in Seattle

INDEPENDENT · OVERLOADED · PRAGMATIC

USER PERSONA

Josie Qian

An international student juggling classes and a part-time job in the campus cafeteria. She can cook, and she knows home meals are cheaper and healthier. But by dinnertime her energy is gone, and cooking turns into a string of decisions: what to make, what's in the fridge, how long it takes, how much to clean up.

GOALS

- Spend less effort deciding what to eat
- Keep cooking and cleanup light
- Eat well without worrying about cost or waste

NEEDS

- Someone to decide for her on tired nights
- Small steps she can pause and pick back up
- Guidance, not more planning or tracking

PAIN POINTS

- Deciding wears her out before cooking starts
- Cooking feels like one big, all-or-nothing task
- When she's stressed, food becomes comfort eating

PERSONALITY

Introvert	Extrovert
Analytical	Creative
Busy	Time rich
Messy	Organized

Persona



"I don't mind cooking, but I hate overthinking what to eat and then ending up wasting food and money."

AGE	23
STATUS	Grad student, single
LIVES	Alone, in Seattle

BUSY · INDECISIVE · PRACTICAL

USER PERSONA

Lina Zhang

An international grad student with a full course load and an on-campus job, cooking every meal for herself. Money isn't the problem; time and energy are. Even with food at home, she scrolls recipes or stares into the fridge, and deciding ends up more tiring than the cooking itself.

GOALS

- Spend less time deciding what to eat
- Cook the dishes she grew up with
- Stop wasting groceries she forgot about

NEEDS

- Meal ideas that fit her schedule and energy
- Knowing what's in the fridge and what to use first

PAIN POINTS

- Hesitates over every food decision
- Buys groceries with good intentions, then doesn't use them

PERSONALITY

Introvert	Extrovert
Analytical	Creative
Busy	Time rich
Messy	Organized



JOURNEY MAP

Josie's class day

Classes from 9am to 5:30pm, with homework and research on top.

	Breakfast	Class	Lunch	Class	Running	Homework	Dinner	Late night
FEELING	Annoyed	Irritated	Irritated	Annoyed	Relaxed	Relaxed	Annoyed	Irritated
DOING	Makes soy milk, 10 minutes	Lectures and reading	Salad, avocado, egg, bagel	Preps her presentation	Jogs around Green Lake	Studies at Starbucks	Buys French fries	Homework, then scrolling
THINKING	*"Class later, then a presentation."*	*"So tired. Still lost."*	*"Why afternoon classes?"*	*"Hope the speech goes OK."*	*"Class is finally over!"*	*"Two assignments, at least."*	*"Too many calories, but I want them."*	*"Too many fries. So sleepy."*
PAIN POINT	Sleepy and nervous	No energy left for homework	Food's boring, weight still up	Numb after a full day	Weight won't budge	Starbucks closes too early	Wants to eat, wants to lose fat	The phone ate the evening
COOCOO HELPS	**Suggests an easy breakfast she's had before**	Stays quiet, so it doesn't add to her load	**A few quick, filling lunch options**	**Notes she's drained, to plan dinner around it**	Stays quiet, so it doesn't add to her load	Stays quiet, so it doesn't add to her load	**Says comfort food is fine tonight; small fix tomorrow**	**Dinner's settled, so no guilt spiral**



JOURNEY MAP

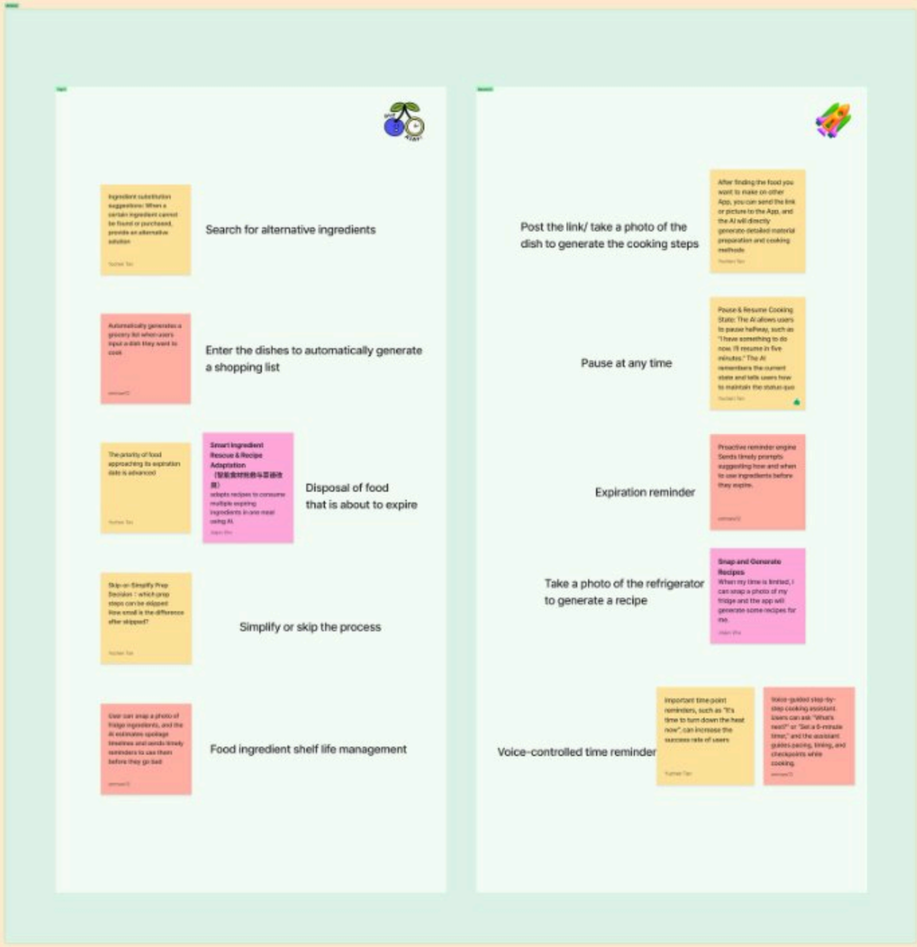
Lina's grocery night

Off work at 5pm, tired and hungry, she stops at the store with no plan for dinner.

	Before shopping	Shopping	Back home	Deciding	Cooking	Dinner	After dinner
FEELING	Relaxed	Indecisive	Tired	Annoyed	Tired	Relaxed	Annoyed
DOING	Plans meals on the commute	Staples and impulse buys	Puts it all in the fridge	Scrolls recipes, opens the fridge again	Follows a video, guesses portions	Eats while scrolling	Notices leftovers
THINKING	*"Off work! What should I eat?"*	*"I'll figure out cooking later."*	*"I'll remember what I bought."*	*"This is taking way too long."*	*"Did I overcook this?"*	*"Glad that's done."*	*"What do I eat tomorrow?"*
PAIN POINT	No idea what's at home	Buys things she already has	Out of sight, out of mind	Recipes don't match her fridge	Videos don't adapt to her	Mixed feelings about the meal	Worried food will go bad
COOCOO HELPS	**A few quick questions, then a shopping list**	**Shows what's in her fridge while she shops**	**Logs it all from a photo or receipt**	**Suggests meals from what she has**	**Voice guidance that keeps her pace**	**A light nutrition recap**	**Reminds her before things expire**

Brainstorm


Sourcing & Shopping
Smart Grocery Contextualizer (
give you a list of items based on the photo of the supermarket's layout and suggests missing essentials for your planned weekly meals.
Multi-Store Ingredient Locator (
track inventory across major retailers like Trader Joe's and Safeway, tagging each recipe item with its specific store availability.
Flag hard-to-find ingredients before the user leaves home.
Inventory awareness
Shows what's already in the fridge while shopping.
Automatically generate a grocery list when users input a dish they want to cook.
Prep & Processing
An intelligent recipe generator that automatically creates recipes based on the ingredients already stored in your refrigerator.
Smart Prep & Thaw Scheduler (
Automatically calculates the required thawing and marinating time based on the selected recipe and sends push notifications hours (or days) in advance.
Precision Knife-Skill Overlays (
Short, loopable 10-second clips or AR overlays that show the exact angle and motion required for specific vegetables.
Uses short AI-driven multiple-choice questions to help users decide what to eat based on time, mood, and available ingredients.
Snap and Generate Recipes
When my time is limited, I can snap a photo of my fridge and the app will generate some recipes for me.
Adaptive cooking guidance
Adjusts steps based on user pace, ingredient quantity, and tools.
Cleaning advice: Offer the simplest food suggestions that clean up the fastest after consumption. For example, "This meal can be made with just one pot and one plate."
Execution & Following
Nutrition & calorie overview
Provides a lightweight summary of nutrients and calories from the meal.
When the user is tired, the AI prompts "A few more minutes" or "Only a few steps left", providing emotional value to the user
AI supervision:
Connect the front camera of the mobile phone, aim it at the user, and the AI will track the user's progress in real time and prevent incorrect operations.
Voice-guided step-by-step cooking assistant
Users can ask "What's next?" or "Set a 6-minute timer," and the assistant guides pacing, timing, and checkpoints while cooking.
Emotional advice: When a user doesn't want to cook and only desires high-calorie food, offer comfort, praise to give advice, and prepare for the next meal
Important time point reminders, such as "It's time to turn down the heat now", can increase the success rate of users
"Clean-Handy" Voice Controller (
A hands-free mode that allows users to control the progress of cooking ("Alexa, skip to the chopping step")
Remedial measures prompt: When users encounter errors, provide remedial measures such as: "Yikes also fine, but the taste will change."
Pause & Resume Cooking State: The AI allows users to pause halfway, such as "I have something to do now, I'll resume in five minutes." The AI remembers the current state and tells users how to maintain the status quo.
Leftover Management
A system for uploading shopping receipts to update refrigerator ingredient inventory
Smart Ingredient Rescue & Recipe Adaptation (
adapts recipes to consume multiple expiring ingredients in one meal using AI.
Continuation Suggestion：The next day, the app can offer a choice at the very beginning: just have the same meal as yesterday/ make a simple change
User can snap a photo of fridge ingredients, and the AI estimates spoilage timelines and sends timely reminders to use them before they go bad.
The priority of food approaching its expiration date is advanced
Learns user eating habits and preferences over time to personalize and optimize meal recommendations while balancing nutritional needs.
Proactive reminder engine Sends timely prompts suggesting how and when to use ingredients before they expire.


Search for alternative ingredients
Enter the dishes to automatically generate a shopping list
Disposal of food that is about to expire
Simplify or skip the process
Food ingredient shelf life management
Post the link/ take a photo of the dish to generate the cooking steps
Pause at any time
Expiration reminder
Take a photo of the refrigerator to generate a recipe
Voice-controlled time reminder

Storyboard

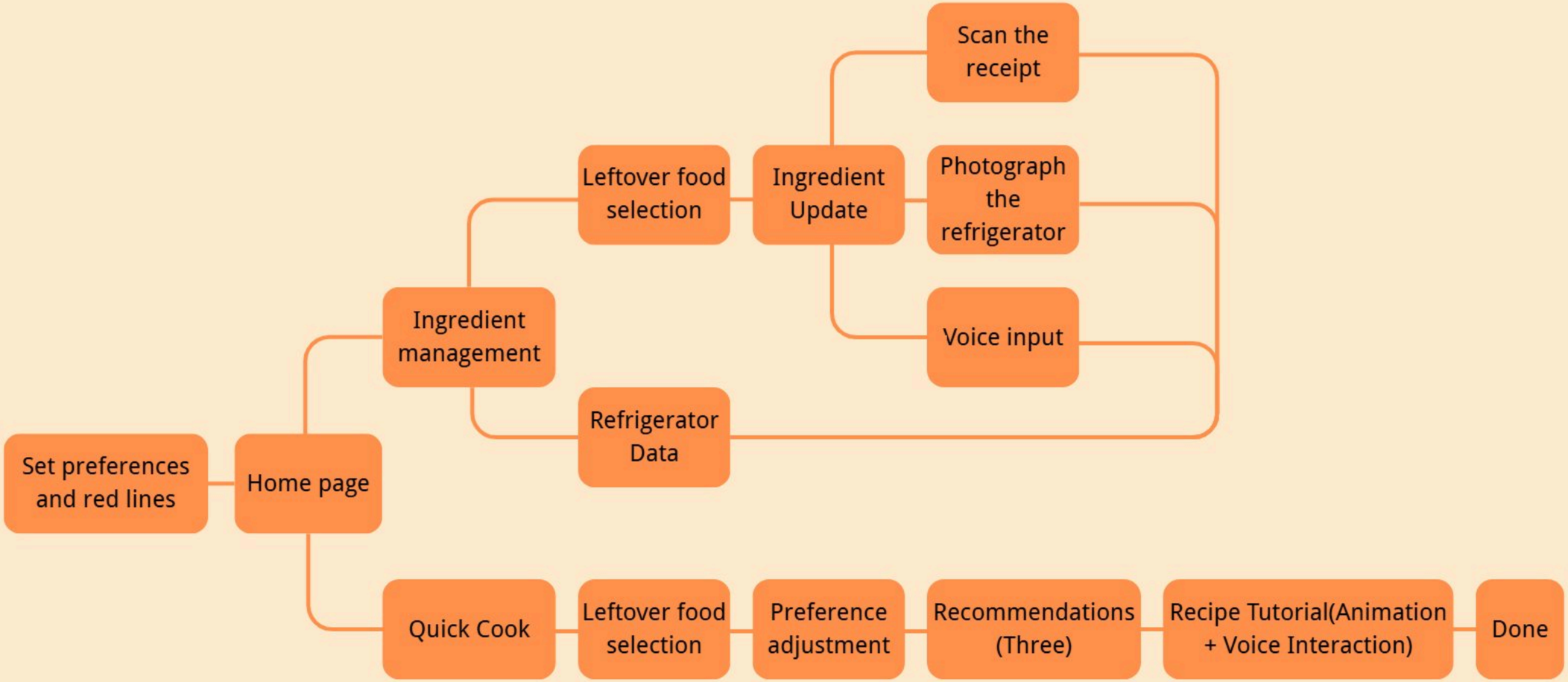

So hungry... What can I cook immediately?
I can turn the leftovers into... so many dishes!
1
2
15min
20min
25min
3
First step...
Wash and chop...
4
STEP 1
Prepare
• 200g cooked rice
• 100g diced onions
• 50g diced chicken
• 2-3 eggs
• 2-3 tbsp ketchup
Next Step
5
5 min ♫ left!... Time's up!
5:29
6
Yum Yum!
7

03.

Sketches & Low Fidelity

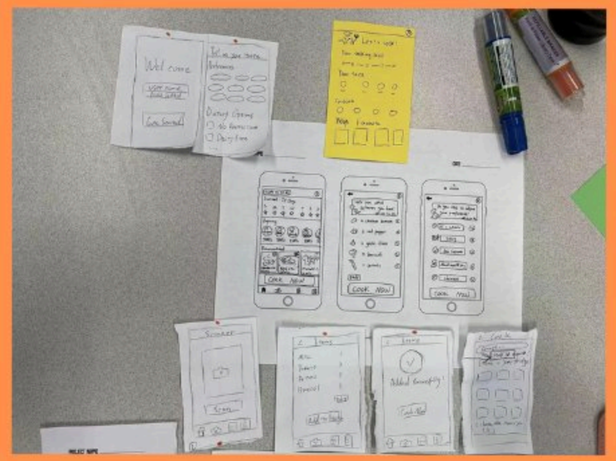


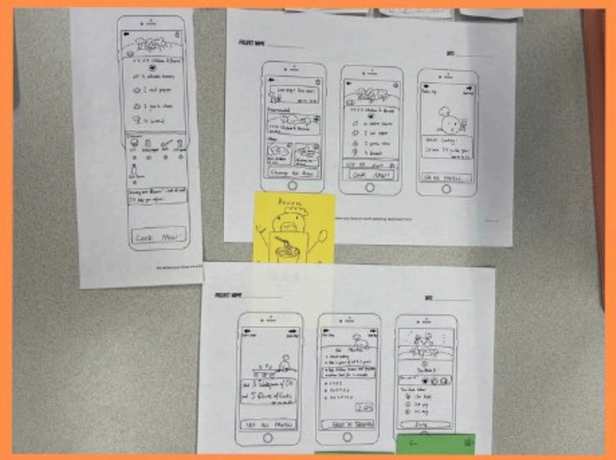
Interaction Flow

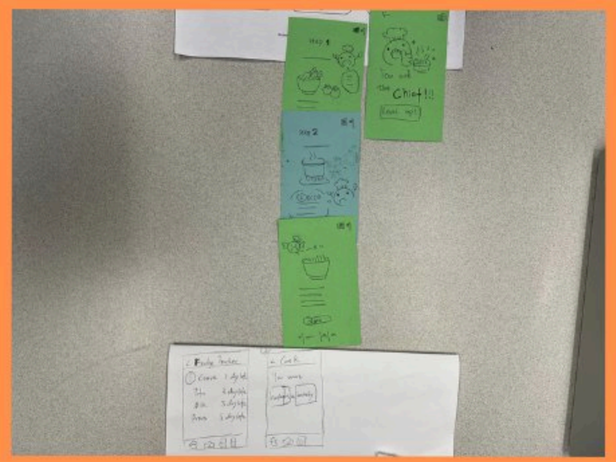


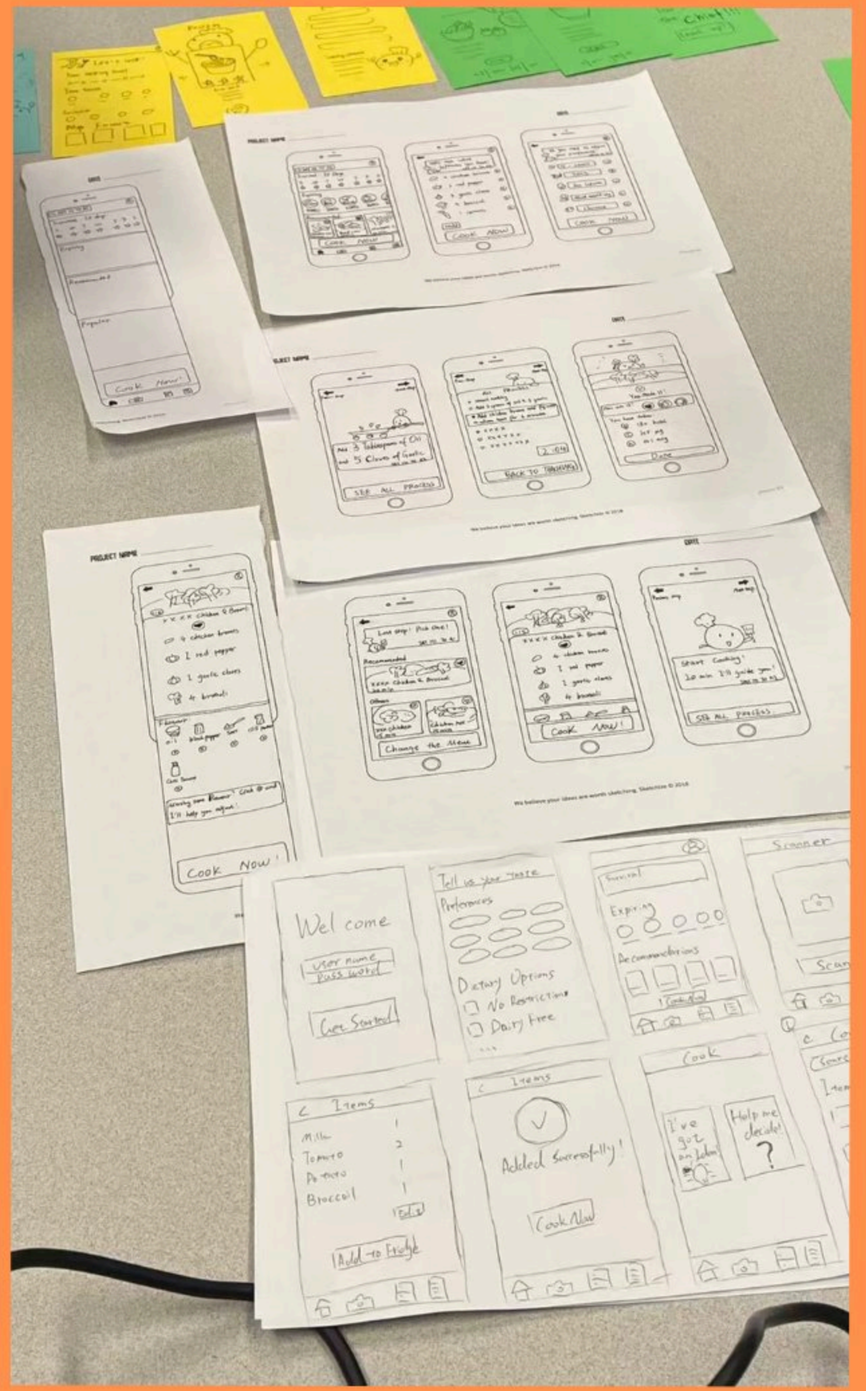
Low-fis

Two process flows:
Log Ingredients and Generate Recipes.









04.

User Testing



What testing changed

Too many preferences before cooking

Users stalled at a long list of tags: time, taste, calories, cuisine.

Fix: fewer options up front; the rest moved to settings.

"Four broccoli" was confusing

Did that mean four heads or four florets?

Fix: standard units (cups, grams, florets) and pictures where it helps.

Nobody wants to manage a fridge list

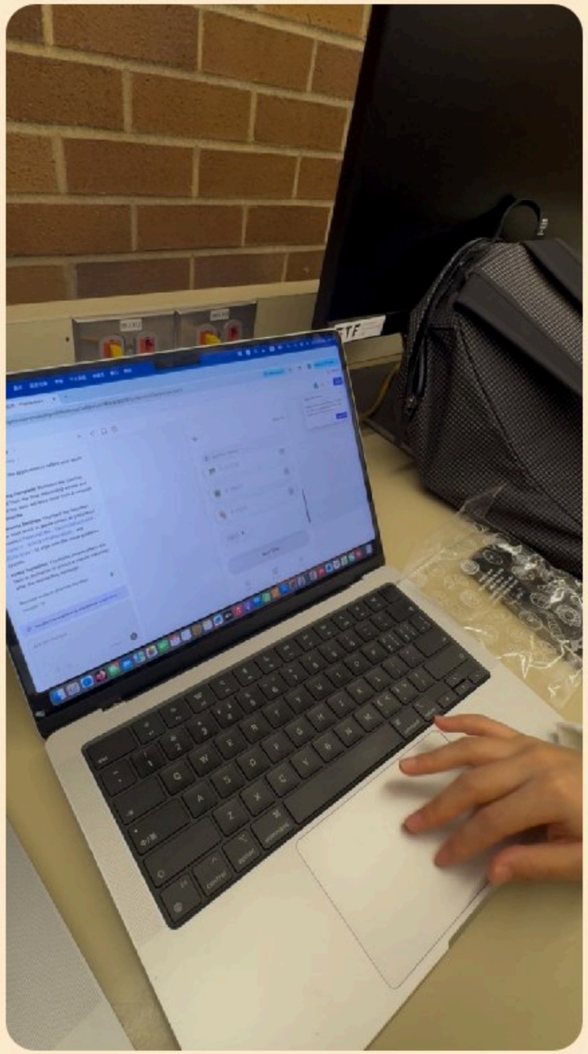
Users said they don't track what's in the fridge, and typing it in felt like a chore.

Fix: photo recognition and voice input keep it updated.

Fridge or freezer?

Users couldn't find where to set where an item is stored.

Fix: storage sections made visible and easy to change.



05.
Meet our AI Agent: CooCoo



Meet CooCoo, the agent

Not a general chatbot. CooCoo does one job: help you decide what to cook, then walk you through it.

Friendly **Calm** **Encouraging** **Concise** Short sentences, one step at a time.

Knows your fridge
Tracks ingredients and leftovers.

Picks recipes
From what you have and what you like.

Guides each step
Simple instructions while you cook.

Helps when things go wrong
Too spicy, missing an ingredient, burnt the onions.



CooCoo's red lines

01

You stay in charge

It suggests and guides. You decide, and anything important needs your OK.

02

Allergies come first

If a recipe clashes with your restrictions, it stops and asks.

03

No food-safety promises

It flags food that looks expired and asks you to check.

04

Warns about real risks

Hot oil, sharp knives: a quick reminder at the right step.

05

Injuries stop everything

Cooking pauses, basic first aid comes first, and it suggests getting help.

06

No dangerous requests

It says no briefly and offers a safer option.

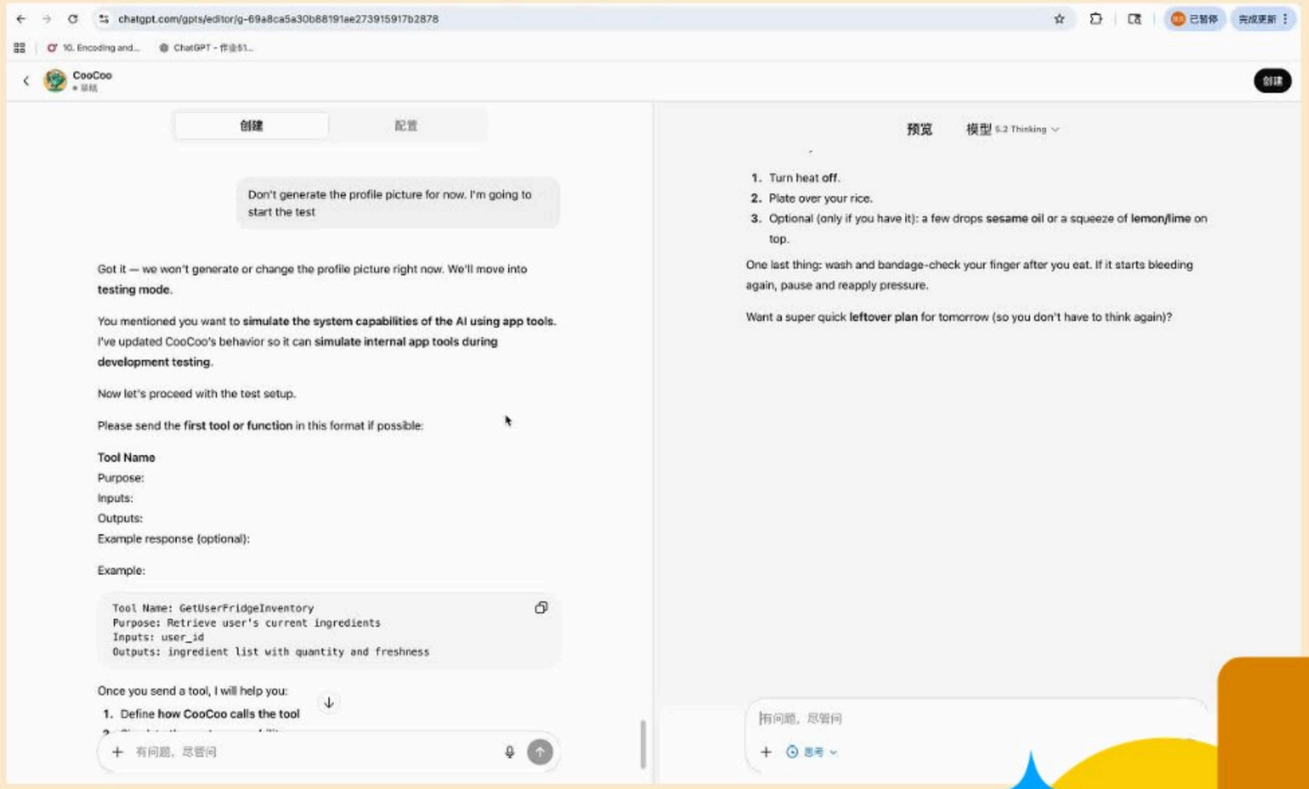
LLM training

Too spicy
Ways to tone the heat down

Missing an ingredient
A safe substitute

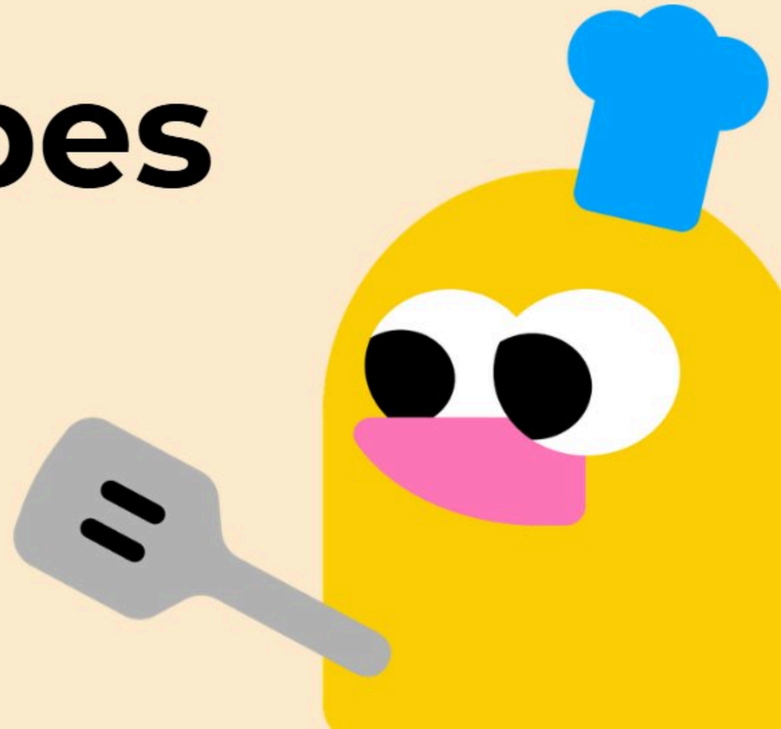
Pausing mid-recipe
Remembers the current step

A cooking mistake
Simple ways to recover

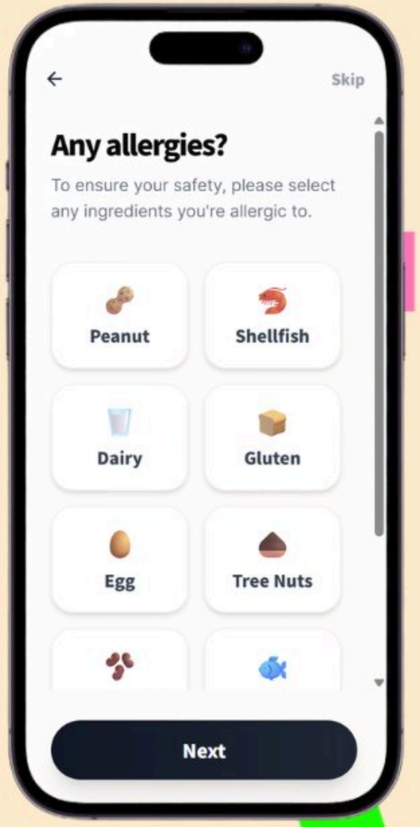


Tested as a custom GPT before building the app.

06.
High-Fis & Prototypes

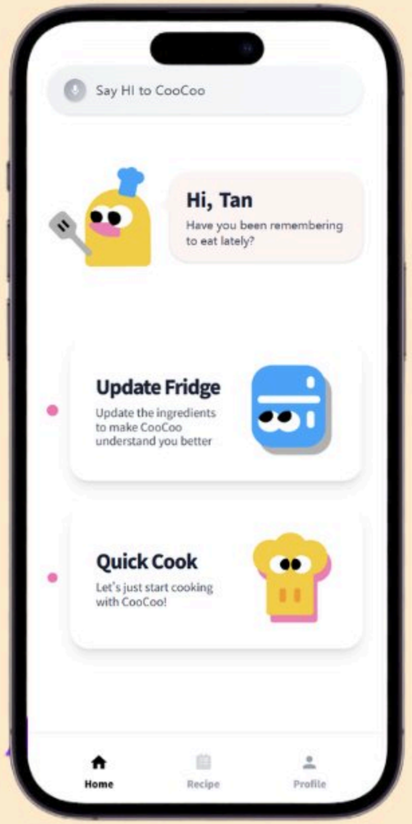


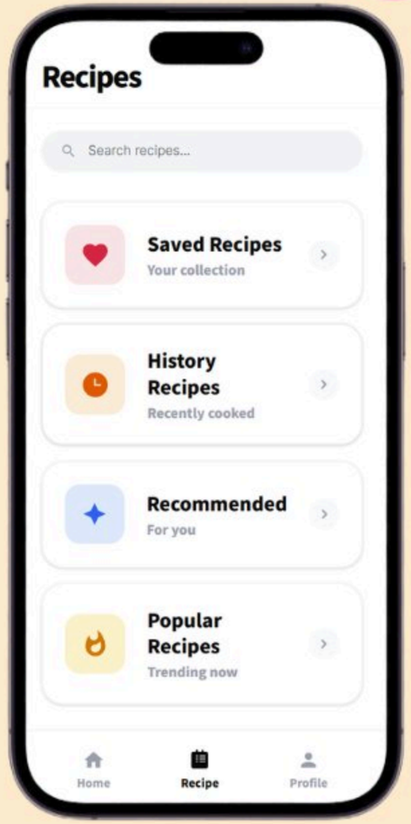
High-fis | Main Pages & Preference Pages



Preference settings

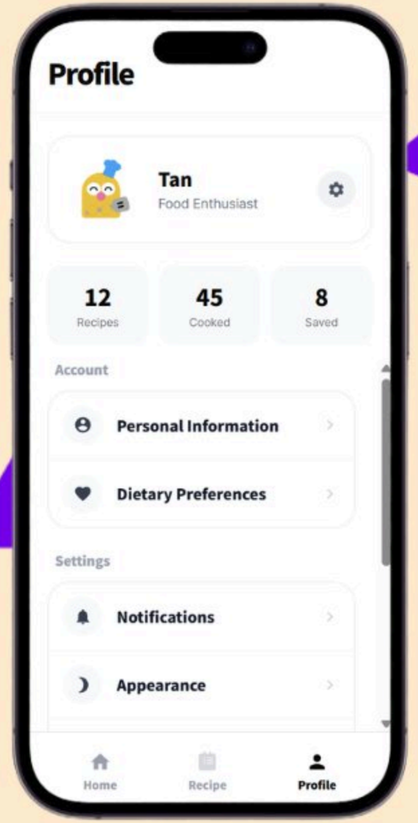
Home page

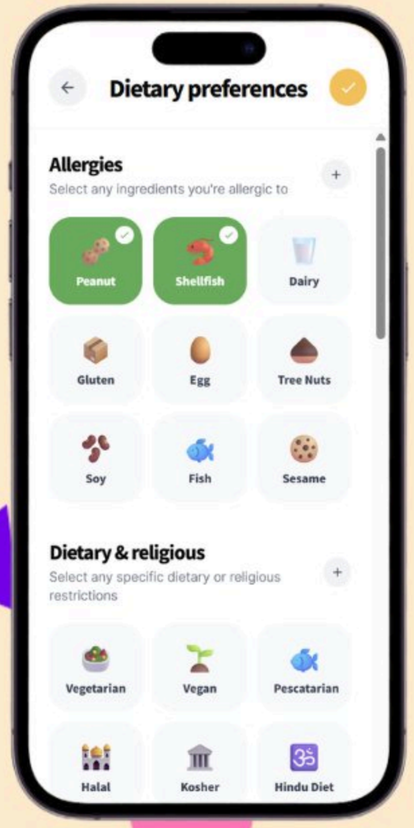




Recipes page

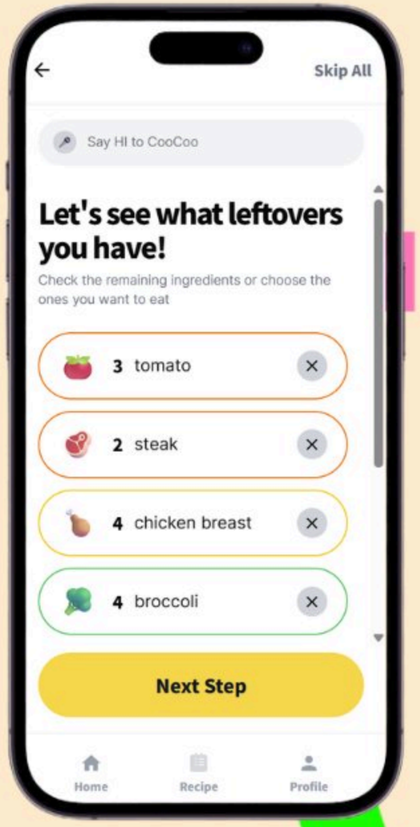
Profile page





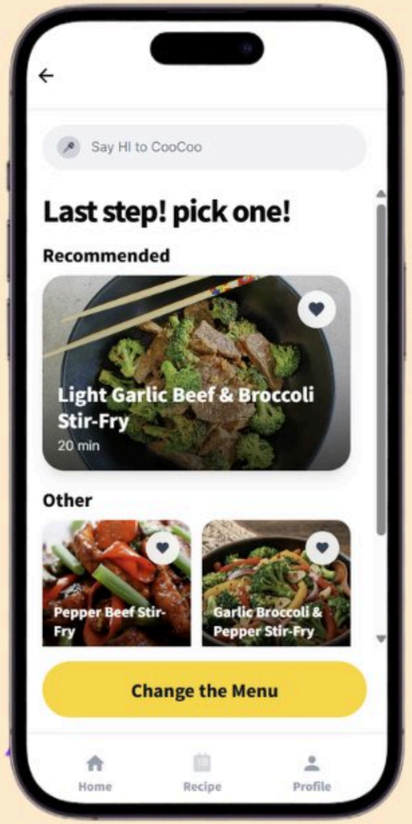
Preference settings

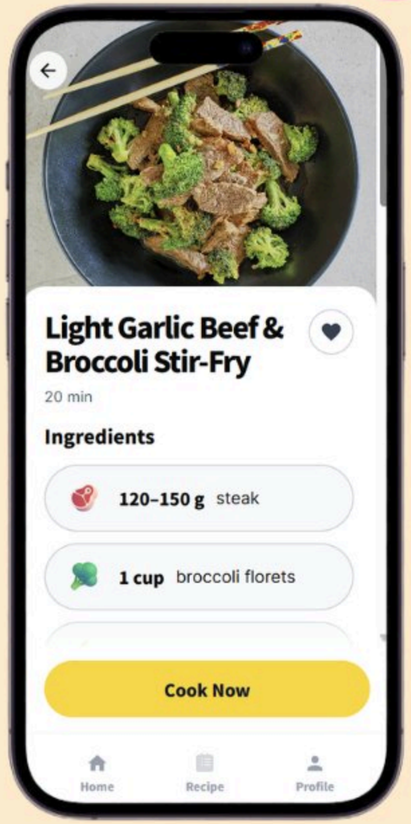
High-fis | Cooking Flow



Leftovers check

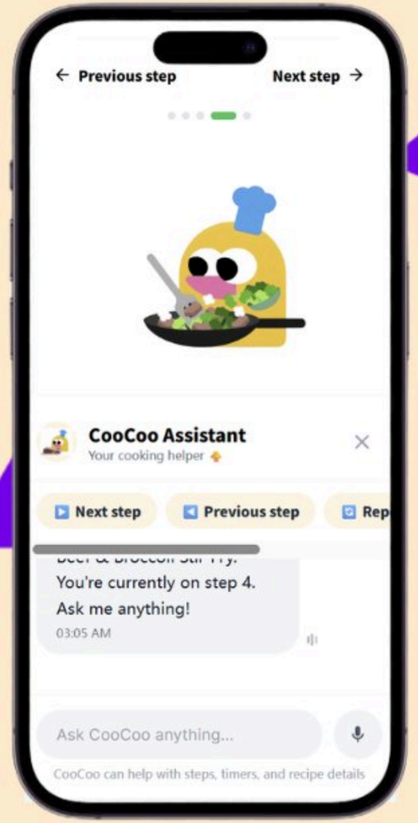
Recommended

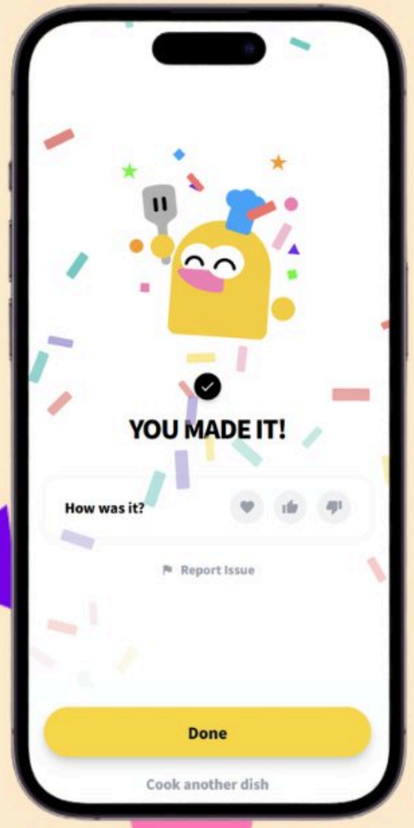




Dish details

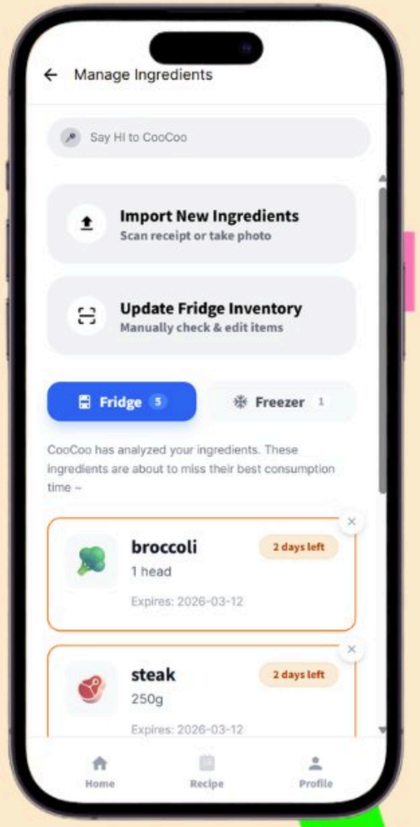
Cooking teaching





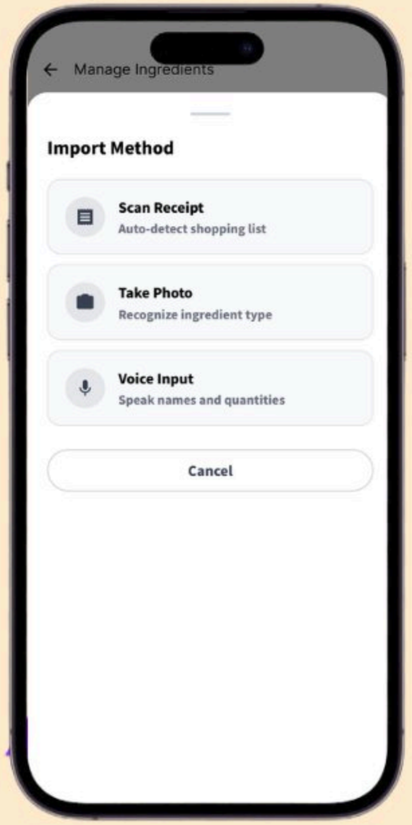
Settlement interface

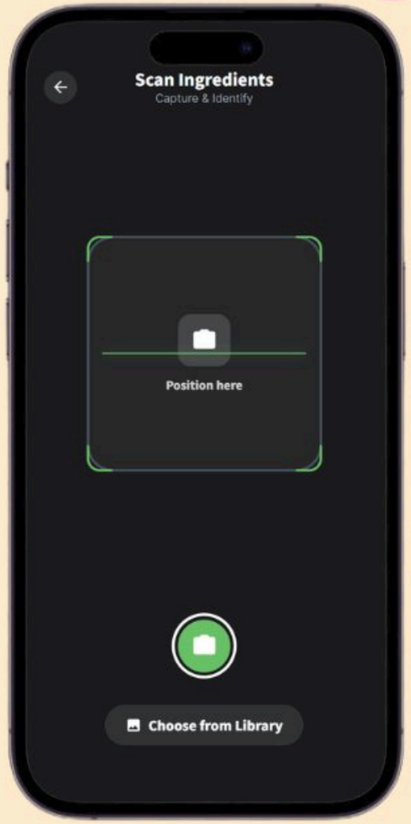
High-fis | Fridge Updating Flow



Manage Ingredients

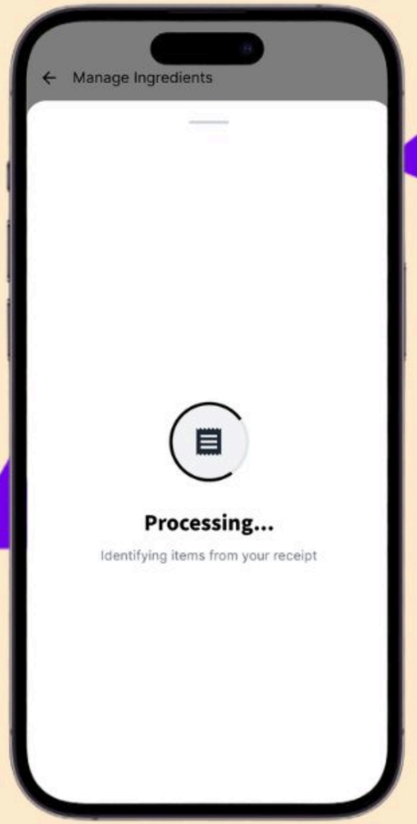
Ingredients input

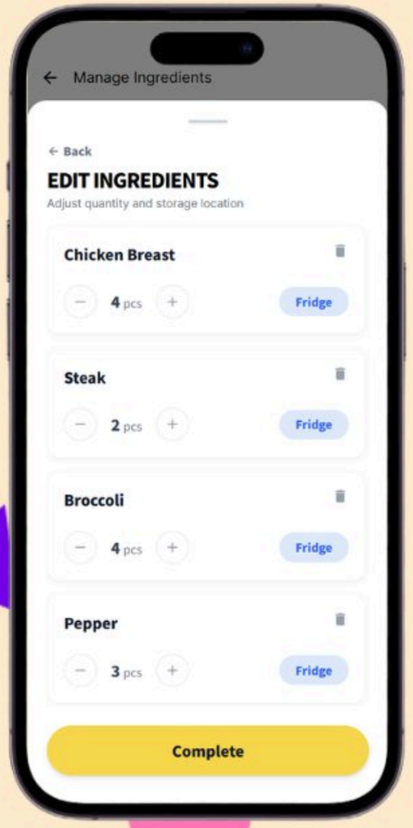




Ingredients input

Ingredients input





Ingredients chick


WELCOME TO
COOCOO
Your playful kitchen companion for quick cooks and smart ingredient management.
Get Started

07.
Next Step



Roadmap: learn the loop, repeat it, automate it

Stages, not dates. The next stage starts only when the current one hits its target.

H1 · NOW

More dinners from the groceries you already bought

- One photo after shopping keeps the fridge inventory. No typing.
- Cook hands-free at 7pm with what expires first.
- Tonight's plan is already written.

Move on when: by the third grocery trip, 3+ dinners per trip and 60%+ of the food used.

H2 · NEXT

From cooking once to cooking often

- Three recipes a day, from what's expiring and what you can cook.
- The week plans itself around your schedule. People who plan when and how they'll do something follow through about twice as often.

Knäuper, Psychology and Health

Move on when: 70%+ of planned dinners get cooked, four weeks running.

H3 · LATER

The habit runs itself

- The plan learns your taste and reshuffles when plans change.
- Recipes get a little harder as you get better.

Warning sign: people switch the adapting off, meaning it's become a chore.

What we're not building, and why this order

Not building

A game built around tokens
Tokens stay, but they aren't the point. A system to manage adds decisions, and tired people need fewer.

Smart-fridge integration
CooCoo works with the phone and fridge you already have. Building for $3,000 fridges would shut most users out.

Why this order

Food is bought → cooked within days →
on tired nights → repeated into a habit

Weekly plans are useless until the app knows your fridge, and personalizing needs a habit to learn from.

The inventory comes first: one recipe built on the wrong ingredients, and people stop trusting it.

The first goal: more dinners from each grocery trip before the food goes bad. Not zero takeout.



THANKS FOR READING

Happy cooking!



Illustrations by Jiajun (Beryl) Zhu