BUSINESS PLAN

Business team:
- Holly
- Louis
- Xanthe
- Jacob

Product name:
Use-By

Business Email:
usebyappofficial@gmail.com

Business Summary

We are a technology startup focused on delivering Use-By, a mobile application that will be launched in 2025 to address food wastage problems among university students. The app allows the user to store their products in a list, and it notifies them when the products are going to expire. Additionally, this list can be accessed among shared households to reduce food wastage and save money. This meets the demands of university students as approximately £273 of food gets wasted per student annually (Dove, 2023).

Our goal is to solve this issue and support students in saving money by reducing their food wastage with a scalable and user-focused solution. Use-By operates in the Food Waste Management market, valued at approximately $69.8 billion in 2022 and is projected to grow a CAGR of 5.4% to reach £39.06 billion by 2030 (www.grandviewresearch.com, 2023). Our differentiation comes from students being able to share their product lists with their household. Each product added by the user can be made private, public or 'up for grabs,' which allows other co-tenants to claim their food if they feel they won't use it before of the expiry date.

Revenue is generated through advertisements and a paid for premium version which will allow the user to have access to recipes based on their product list. This was designed to align with user needs and market trends. The founding team, with expertise in software development, user experience design and marketing analysis is committed to iterative improvements and strategic partnerships to drive adoption.

We aim to establish Use-By as a trusted solution for university students by prioritising usability, performance and customer feedback, positioning us for a steady growth in a competitive landscape.

Business Aims

With Use-By, we are committed to achieving the following business aims and support university students' well-being:

1. **Reduce food wastage by university students**
   - Achieve a reduction in food wastage among app users by 15% within the first 12 months of launch.

- Implement features such as expiration notifications, food sharing among household tenants and suggested recipes.
2. **Promote cost savings for students**
   - As previously mentioned, Zero Waste Scotland Study shows students waste £273 each year. In this case, our app aims to save students £40 a year.
   - Provide integration with local food markets for student discounts.
   - Sharing unwanted food products between house tenants.
3. **Drive user adoption and engagement**
   - Onboard 1000 active users within the first-year post-launch, targeting university students in the UK.
   - Achieve monthly retention rate of 60% by offering intuitive design and regular feature updates based on user feedback.
4. **Encourage sustainability awareness**
   - Educate users on the environmental impacts of food wastage through the promotional website and future in-app campaigns.
   - Partner with at least 2 university sustainability programs within the first 2 years of Use-By launching.
5. **Create a sustainable revenue model**

Business Model Canvas

Designed for: Use-By	Designed by: Holly Jordan	Date: 10/5/2025	Version: 1

Key Partners
- Universities
- Investors

Key Activities
- App development
- Maintenance
- Implement new features and expand

Key Resources
- Employees
- App
- Website

Value Propositions
- Track the expiration dates of food
- Be alerted when a product is expiring soon
- Be recommended recipes based on products that are expiring soonest
- Share food with flat mates by putting items "up for grabs"
- Collectively track all flat mates' food by joining their house

Customer Relationships
- Self service

Channels
- Social media
- Word of mouth
- University recommendation
- Website
- Use-By app

Customer Segments
- University students
- Flat sharers

Cost Structure
- Website hosting
- Google Play store developer account
- IOS developer account
- Marketing
- Domain name
- Server

Revenue Streams
- Subscription fee
- Advertising

Revenue

Revenue Model

For the Use-By app to earn revenue, it will be taking on a hybrid of a subscription-based model and an ad-based model. This will strike a balance between presenting users who are on a free subscription tier with ads, while providing an option for an ad-free experience and an expanded range of features to users willing to sign up to the premium tier.

Subscription Based Model

We will be implementing a subscription-based model into our app by offering a premium tier to our users. Users will by default be enrolled onto a free standard tier of our product, allowing them to use the base features of the app. This includes logging their own personal items and being alerted as to when they are expiring. The premium tier will expand the range of features a user has access to and will allow them to be recommended recipes based on their items that are expiring soon. They will also be able to join other users' "houses", allowing them to share item lists with their flat mates.

The premium tier will remove ad banners and provide access to the most desirable features based on our market research surveys, making it viable as something users will be interested in subscribing to. Additionally, since the recipes suggestions provide direct ways to use up items, and the house sharing provides a way to put food "up for grabs" so flat mates can use up unwanted food, these premium features will aid the user in saving money. Therefore, the cost of the subscription should be seen as something the user can easily make up for with the money they have saved. The proposed cost of a subscription is £4.99 per month, or £49.99 for a whole year.

Ad Based Model

Use-By will also implement an ad-based revenue model. This is a model our premium users will not be subject to, as they are already paying for our service. Our app will have detailed information on our users' exact buying habits. This includes how often they shop, where they shop, commonly bought products and how much they buy at once. This information can be used to sell premium ad-space to willing agencies, allowing us to generate significant revenue. We plan to include ads within our recipes, citing sponsors' products in place of generics.

We plan to auction off ad-space using a pay-per-view pricing model. The initial price of ads will be £20 CPM, without existing sales data we will be unable to set an option price here, however as our service grows and we record more data, a more accurate and profitable pricing model will come into fruition.

Projected Income

We assume:

- 5000 users, 10% active daily.
- 5 ad views per session.
- 5% of users pay premium, 50% of which pay annually.
- Ads are sold at the starting auction price.

Income from ads

$$daily\ ad\ income = \frac{daily\ users \times session\ ad\ views \times ad\ CPM}{1000} = \frac{5 \times 5000\ \times 0.1 \times 20}{1000} = £50$$

Income from subscriptions

$$monthly\ sub\ income = monthly\ sub\ users \times monthly\ sub\ price = \ 5000 \times 0.025 \times £4.99$$
$$= £623.75$$

$$annual\ sub\ income = annual\ sub\ users \times annual\ sub\ price = \ 5000 \times 0.025 \times £49.99$$
$$= £6248.7$$

Total projected annual income

$$total\ yearly\ income$$
$$= (daily\ ad\ income \times 365.25) + (monthly\ sub\ income \times 12)$$
$$+ yearly\ sub\ income$$
$$total\ yearly\ income = (50 \times 365.25) + (623.75 \times 12) + 6248.7$$

$$total\ yearly\ income = £31996.25$$

Elevator pitch

Use-By is a smart mobile app designed to cut food waste and save money for UK university students. The app will let you track food in shared households by storing products in a list, notifying you when items are nearing expiry and managing shared food with options like private, communal or up for grabs. You can add, edit or delete items, see what's expiring soon and get recipe recommendations to use expiring ingredients. With 8.25-34.31 kg of food wasted per person annually (Gamboa-Delgado, Herrán and Quintero-Lesmes, 2024), Use-By empowers students to plan better, share smarter and cook creatively. Reducing waste and stretching budgets in one simple app.

The market

Typical customers

Our typical customer is a university student in the UK, aged 18-25, part of the Gen Z demographic. They are enrolled in undergraduate or postgraduate programs and live in shared accommodations such as student halls, private rentals or house shares. They will likely be studying at a UK university (e.g. in cities such as London, Manchester or Bristol) and come from diverse backgrounds, including domestic and international students. Their income is limited and often rely on student loans, part time jobs or parental support with an average monthly budget of £1104 (Brown, 2024).

Empathy map

How does Lucy think and feel?
- Lucy was worried about wasting money due to the amount of food waste she'd have every week from forgetting to use food items.
- She also finds herself feeling disgusted when going to the kitchen as there is always expired food that leaves an awful smell.

What does Lucy hear?

She has briefly explained her concern to other family members and house members, however they all say that she is lazy and forgetful. This makes her upset as she is always busy working and never has time to remember such things being in the fridge.

What does Lucy see?
- When getting food out of the fridge, Lucy often sees that something has expired and that there's always a funny smell coming from the fridge because of this.
- Her house mates often get annoyed at each other for all being forgetful as the smell can be an annoyance in the kitchen.

What does Lucy say and do?
- Lucy and her house have tried a physical list to remember food items but everyone tends to ignore it on the fridge when they get food.
- Lucy talks to her house about how she wants to find something they can all use on their phone to remember the food in the fridge so it doesn't go off.

Pain:
- Fears this will cause a house controversy.
- Frustrated that everyone ignores this issue but gets upset about it too.
- Tried to find ways to get around it but they didn't work.

Gain:
- Wants to find a way for the house to work this out.
- Discuss options to fix this issue with her house.
- Perhaps trying something on their phones.

User persona

Jakob Noris

BIO

Jakob is a business student who has a passion for being environmentally friendly. Being a vegan and using public transport, Jakob has always tried his hardest to make sure he isn't affecting the planet. However, he recently found that him and his housemate's food bin is always full and it's not always food left overs. He has always been organised when it comes to food consumption and not wasting a penny but his house mates aren't the same.

"I'm looking for an app to help reduce food wastage."

AGE: 21
DEGREE: Business
WORK: Part time barista
LOCATION: Brighton

Organised | Vegan
Practical | Animal lover

Goals:
- To help his house mates reduce food wastage.
- Help the environment by doing so.
- Save his housemates some money.

Frustrations:
- Too much food wastage. – He's not always there to clean out the fridge.
- The food bin is always piling up so he can't use it for his fruit peels!

Personality

Introvert — Extrovert
Analytical — Creative
Passive — Active

Motivations

Price
Convenience
Practicalness

Preferred channels

Mobile
Chrome
Email

Brands

TESCO   patagonia

LUSH FRESH HANDMADE COSMETICS   Nike

Why would the customer use our app

Use-By directly addresses the specific needs and pain points related to food wastage, financial constraints and household coordination. Below are some key reasons, aligned with the user profiles.

1. **Reduce food wastage effectively**
   - **Problem:** Food waste contributes to 10% of global carbon emissions (WRAP, 2024), and clutters shared kitchens.
   - **Solution**: Use-By lets users track food expiry dates in a digital list, add/edit/delete items, and receive notifications when products are expiring. This helps them use food before it spoils, which will significantly reduce waste.
   - **Why they care:** As environmentally conscious individuals, they want to minimise their ecological footprint and Use-By provides a practical tool to achieve this.
2. **Save money on groceries**
   - **Problem:** With limited budgets (£10,000-£15,000 per year) and rising inflation (3% in 2025) students need to reduce grocery overspending and spoilage, which costs them around £273 each year (Acheson, 2023).
   - **Solution:** By preventing food waste and offering recipe suggestions, Use-By helps students save £40 a year by avoiding over buying and using their expiring ingredients effectively.
   - **Why they care:** Saving money is critical for financially constrained students, and Use-By's cost saving features align with their need to stretch their budget for essentials such as rent or social activities.

3. **Simplify shared household food management.**
   - **Problem:** In shared households, limited fridge space and poor communication leads to forgotten or duplicated food, increasing waste.
   - **Solution:** Use-By allows users to view all food in their house, assign and share statuses help with housemates coordinating and having better communication. This reduces confusion and ensures food is shared or used.
   - **Why they care:** Students value collaboration and want to foster a sustainable household culture. Use-By's intuitive design encourages housemate adoption, making it a team effort.

What factors help your customers choose which business to buy from?

Effectiveness in reducing food

- This matters as students, particularly younger generations are increasingly environmentally conscious and motivated to reduce their ecological footprint. Food waste contributes significantly to global carbon emissions and students waste 8.25-34.31 kg of food per year, exacerbating environmental harm.

- UseBy addresses this with tracking food expiry dates, enabling users to add/edit/delete items and sending expiration dates notifications. This directly tackles food wastage by encouraging timely consumption. The reduction in food waste aligns with students' desires to minimise their environmental impact.

- The students would choose UseBy because of its practical and user-friendly usefulness on environmental values. Studies show that environmental consciousness and awareness of consequences (e.g. climate change) strongly influence food waste reduction behaviour, making UseBy appealing to students who prioritise sustainability.

Market Research

Food Wastage in Homes - Use By App

50 Responses   02:33 Average time to complete   Active Status

1. How often does your food go out of date before you get to use it?

🔵	Frequently	14
🟠	Occasionally	28
🟢	Never	8

2. How likely are you to eat a product after its use by date?

🔵	Very likely	7
🟠	Somewhat likely	20
🟢	Somewhat unlikely	7
🔴	Very unlikely	8
🟣	Other	8

3. Have you ever used an app to track your food's use by date or suggests recipes?

🔵	Yes	2
🟠	No	48

4. If so, which app or apps have you used?

6
Responses

Latest Responses

5. How often do you search for recipes based on the food you have in your house?

🔵	Daily	1
🟠	Weekly	8
🟢	Occasionally	19
🔴	Rarely	17
🟣	Never	5

6. How likely are you to use an app which tracks your food and its use by dates?

|		
🔵	Very likely	10
🟠	Somewhat likely	12
🟢	Neither likely nor unlikely	7
🔴	Somewhat unlikely	9
🟣	Very unlikely	9
🟤	Other	3
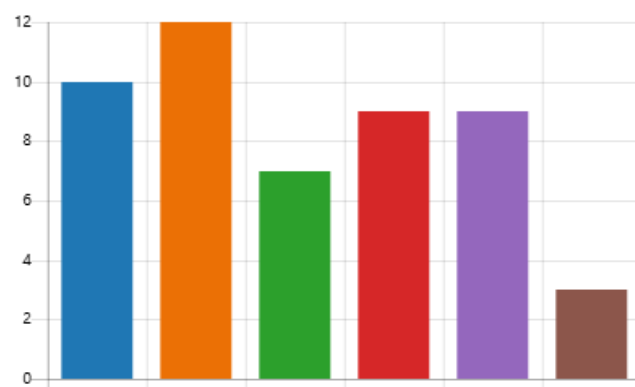
7. If you were to use this app, would you like it to recommend recipes based on what food is going off in your home?

🔵	Yes	45
🟠	No	0
🟢	Maybe	4
🔴	Other	1

8. Would you like to be able to share items with housemates or put items, "up for grabs" if you are unlikely to use it before it goes off?

🔵	Yes	42
🟠	No	3
🟢	I live alone	5
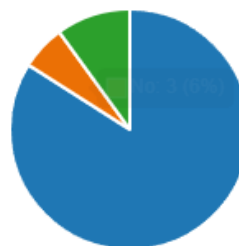
9. If this app was put into production, are there any features you would like to see added?

Latest Responses

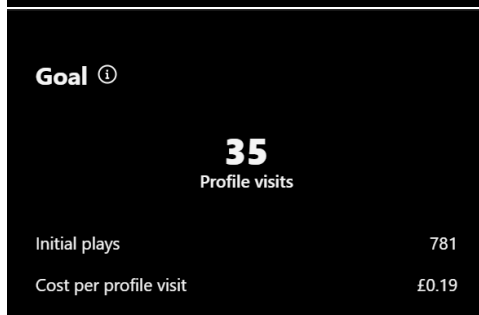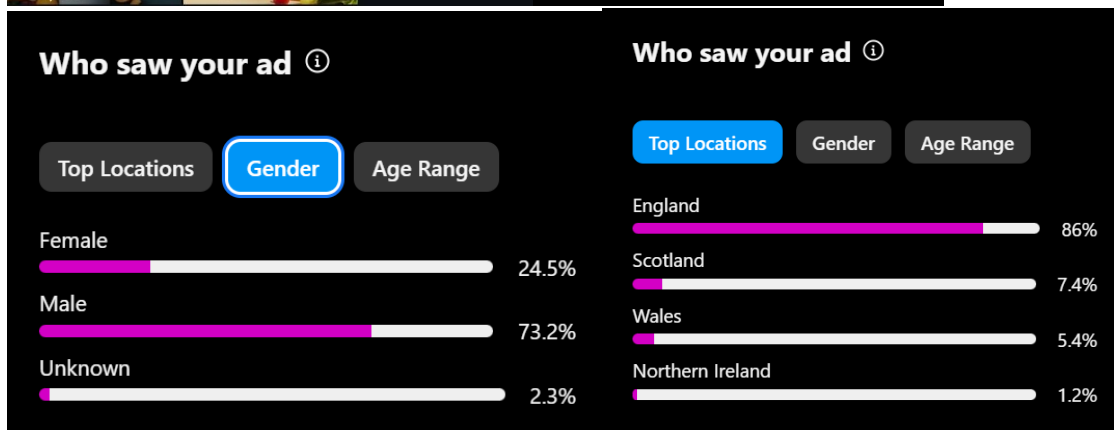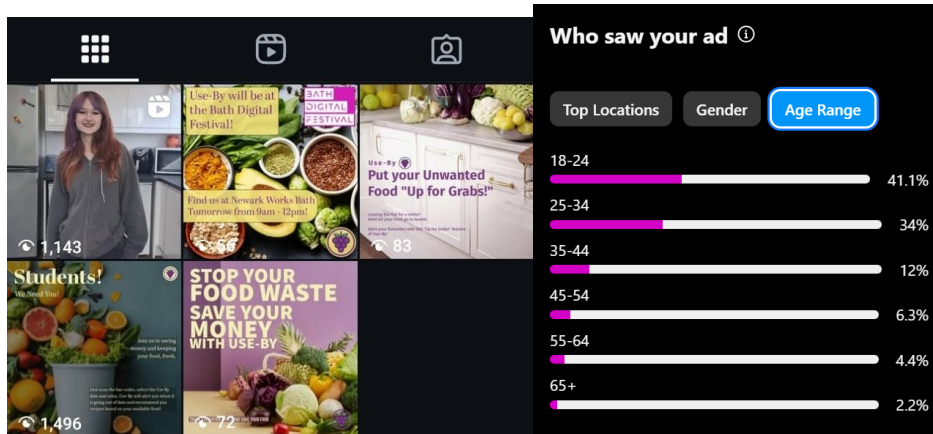*"caloric tracking potentially? aswell as allergy and dietary restrictions ...*

Key findings from user surveys

- Food often goes out of date before getting used, with this happening frequently to 28% of respondents, and occasionally to 56%, meaning this is an issue for most respondents.
- 56% of respondents frequently search for recipes based on the food they have in their house.
- 44% of respondents are likely to use an app that tracks their food and expiration dates.
- 84% of respondents would like the feature to share items with their flatmates.
- Main features respondents would like to see include:
  - Recipe suggestions
  - Dietary information and calorie tracking
  - Scanning to fill in product details

Marketing strategy

Our marketing strategy consisted mostly of Instagram posts and posters around the Bath Spa University Newton Park and Locksbrook campuses. We decided posters would be an ideal method to reach our target audience, as these places are filled with many students, increasing the chances that our target audience would discover our product. Therefore, a flyer was created highlighting the key features of the app, with a QR code directing people to our Instagram page. Additionally, posting on Instagram gives our product an online presence, and Instagram is a particularly well-suited for targeting students. This is because it is one of the most popular social media platforms among Gen Z, used by 65% of this group (MSSMedia, 2025).

Running ads on Instagram allowed us to expand our reach to our target audience. This has cost between £1 – £2 per day per post, which is relatively cheap for the scope of the project, costing only £20 so far, and reaching an audience of over 2600 people. The demographic breakdown of the reach of ad reveals that our highest age range of viewers was in the range of 18-24 years old, which is specifically the most common ages of university students. This highlights that the ad successfully reached out target audience. Overall, this ad campaign has cost £0.008 per person reached, making this a cost-effective method of reaching our audience.

Who saw your ad ⓘ

Age Range (selected), Top Locations, Gender

Age	Percentage
18-24	41.1%
25-34	34%
35-44	12%
45-54	6.3%
55-64	4.4%
65+	2.2%

Who saw your ad ⓘ

Top Locations, **Gender** (selected), Age Range

Gender	Percentage
Female	24.5%
Male	73.2%
Unknown	2.3%

Who saw your ad ⓘ

Top Locations (selected), Gender, Age Range

Location	Percentage
England	86%
Scotland	7.4%
Wales	5.4%
Northern Ireland	1.2%

Goal ⓘ

35
Profile visits

Initial plays	781
Cost per profile visit	£0.19

If we were to continue running advertisements for a year over Instagram and Tik Tok it would cost us approximately £365 to £730, with costs being between £1 and £2 per day. If this trend continued over the year, we could expect at least 60,800 to 61,000 views on Instagram alone.

Competitor analysis

Table of competitors

Name, Location and business size.	Product/service	Price	Strengths	Weaknesses

CookPad	"A global recipe-sharing platform and cooking community where users can find, share, and create recipes."	Free to download and use. While the basic functionality is free, Cookpad offers an optional premium subscription with additional features.	Vibrant Community of Home Cooks Ingredient-Based Search and Flexibility Global Recipe Diversity Recipe Sharing and Personalization Accessibility and Simplicity Dietary and Cooking Method Filters	App Performance Issues Limited Free Features and Premium Paywall Inconsistent Recipe Quality Outdated Interface and User Experience Limited Advanced Features Regional Content Gaps
Yuka	"A mobile app that scans food and cosmetic product barcodes to provide users with information about the health impact of those products."	Yuka is free for the basic barcode scanning and product analysis, but a search bar and unlimited history is £15 a year.	Comprehensive Product Analysis User-Friendly Interface Independence and Transparency Healthier Alternatives Extensive Database Educational Value Free Version Robustness	Potential for Health Anxiety Inconsistent Accuracy Limited Offline Functionality Overemphasis on Additives Regional Scoring Bias Not a Substitute for Professional Advice Limited Ethical Scope
Fridgely	"An iOS app designed to help users track food expiration dates and potentially	Free to download but there are potential in-app purchases.	Effective Food Waste Reduction	Technical Bugs and Crashes

	reduce food waste. "		Barcode and Receipt Scanning Recipe Suggestions Based on Inventory Customizable Organization Device Syncing and Sharing User-Friendly Interface Shopping List Creation	Inaccurate Expiration Date Estimates Limited Recipe Functionality Disorganized Shopping List Multi-User Syncing Issues Limited Regional Support Lack of Tech Support
NoWaste	"A food inventory app designed to help users track, manage, and organize food items in their refrigerators, freezers, and pantries. "	Free to download but can purchase premium features.	Comprehensive Food Inventory Management Multi-User Synchronization Meal Planning and Shopping List Integration Environmental Impact Tracking Flexible Input Methods Clean and Professional Interface Pro Features for Advanced User	Significant Technical Glitches Poor Customer Support Time-Intensive Setup Inaccurate Barcode and Category Functionality Notification System Issues Regional Database Limitations Loss of Data After Updates

SWOT analysis

Fridgely

Strengths	Weaknesses
Effective food waste reduction – the tracking expiration dates feature helps users reduce their food waste, addressing the issue that families of four waste 25% of their food annually. This aligns with growing consumer demand and sustainability. **Barcode and receipt scanning** – The app simplifies the inventory entry through barcode scanning and receipt uploads, saving time compared to manual input. **Recipe suggestion tied to inventory** – Fridgely offers recipes based on tracked ingredients, helping users cook with what they have, similar to Cook Pad's ingredient-based search but directly linked to real-time inventory.	**Technical bugs and crashes –** Users report frequent issues, including disappearing images, app crashing when sharing, recipe tab errors and data loss. **Inaccurate expiration date estimates** – auto generated expiration dates are often incorrect, requiring manual edits and the app forces expiration dates on non-perishables. **Disorganised shopping list** – the shopping list is hard to edit or reorder causing inefficiencies during grocery trips such as navigating store isles repeatedly.
Opportunities	**Threats**
Growing demand and sustainability – with increasing consumer focus on reducing food waste, Fridgely can capitalise by enhancing its waste reduction features and marketing its environmental benefits. **Integration with smart home devices** – Adding compatibility with smart fridges or voice assistants could streamline inventory tracking, appealing to tech-savvy users. **Global market expansion** – Improving barcode recognition for non-US products and localising features could tap into internation markets, especially in Europe and Asia.	**Competition from established apps** – Apps like NoWaste, CookPad and Yuka offer overlapping features with more polished interfaces or larger user bases, threatening Fridgely's market share. **User Frustration with technical issues** – Persistent bugs and lack of support could drive users to competitors especially as reviews highlight data loss and crashes as dealbreakers. **Market saturation**– The food management app market is crowded, with free or low-cost alternatives and comprehensive platforms like Paprika, reducing Fridgely's differentiation.

NoWaste

Strengths	Weaknesses
Comprehensive inventory management – NoWaste excels at tracking food across multiple storage locations using barcode scanning, receipt photos or manual entry for a 200+ item library. **Multi-user synchronisation** – The app supports real-time syncing across devices,	**Significant technical glitches**– Frequent bugs including barcode scanning failures, double entries, inaccurate expiration dates and receipt scanning issues. **Unresponsive customer support**– Users report weeks without replies for issues like data loss or login problems, frustrating pro subscribers.

allowing household members to collaborate on inventory updates, ideal for shared living. **Environmental impact tracking** – The app tracks food waste and carbon emissions highlighting high-carbon foods and consumption patterns, appealing to eco conscious users.	**Time intensive set up** – Initial and ongoing inventory entry is labour-intensive, deterring casual users who prefer simpler solutions like spreadsheets.
Opportunities **Rising sustainability demand** – Growing consumer focus on reducing food waste creates demand for NoWaste's waste. **Smart home integration** – Adding some compatibility with smart fridges or voice assistants could enhance inventory tracking for tech savvy users. **Health and Wellness Features** – Adding nutritional analysis or dietary filters could attract health-conscious users, combining inventory with wellness.	**Threats** **Strong competition** – Apps like Fridgely, CookPad Yuka and comprehensive platforms like Paprika offer overlapping features with better polish or larger bases. Regional market barriers – Limited barcode support from non-US products restrict global growth where CookPad is more diverse recipes thrive. **Market saturation**– The food management app market is crowded with free alternatives and established apps reduction differentiation.

To separate us from the competitors, we created two main unique selling points, an "up for grabs" feature and recipe recommendations. Recipes are based on the food already owned by users and prioritises food nearer its use-by date. This feature reduces the food wastage by encouraging users to use food before it expires. Competitors in the same field do not provide either of these features. During our research phase we conducted a survey, which showed that the majority of users would use our app given this feature.

"Up for grabs" is a feature which allows users to give up their food items to their household or flatmates when they are going out of date or simply will not use them. This will reduce food waste in any household which uses Use-By as food will be shared before it is binned. This feature was also suggested on the initial user surveys with overwhelmingly positive feedback. This feature may attract users to our product over others, especially students in shared living situations.

Expected costs

Item	Expense	Occurrence
Server host	Varies ~£10	Monthly
Server maintenance	Varies ~£10	Random + annual
Domain name	£13	Yearly

Google Play developer account	£18.79 ($25)	One time
IOS developer account	£74.41 ($99)	One time
Instagram Marketing	£30	Monthly
Showcase Marketing	£45.95	One time
Website host	Varies ~£10	Monthly
App maintenance	Varies ~£10	Random + annual

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