FOOD WASTAGE

SHELF LIFE HERO

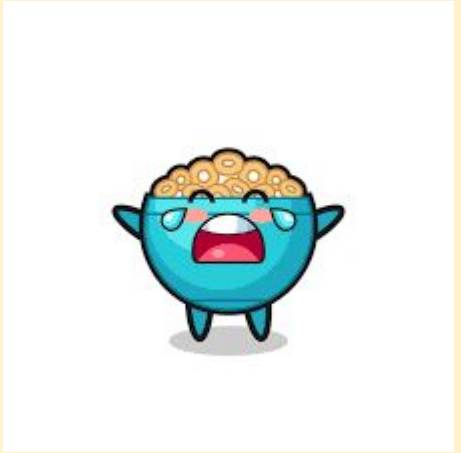
NISHITA JAIN
PRAJIT SENGUPTA
JACK EVANS

Confidential

Copyright ©

Problem

- Household food waste remains a pressing issue in the United Kingdom, with significant environmental and economic implications.
- Recent statistics reveal that UK households generate approximately **10 million tonnes of food waste** annually, contributing to both financial losses and environmental degradation.
- Two primary contributors to this waste are inefficiencies in **batch cooking practices and confusion surrounding food expiry dates.**
- Batch cooking, while intended to save time and resources, often leads to unintended waste.
- Additionally, misinterpretation of food date labels, such as **"best before"** and **"use by,"** leads consumers to discard edible food prematurely.
- This confusion is exacerbated by inconsistent labeling practices, causing up to **20% of unspoiled** food to be unnecessarily thrown away.



Proposed Solution

We propose the development of a **application designed to enhance food management** within households. Upon user registration, the app would **capture details such as fridge size and typical food preferences**. Key features include:

1. **Inventory Management**: Users can input items added to their fridge, tracking both raw ingredients and prepared meals. The app would monitor storage durations, alerting users to items nearing their expiry.

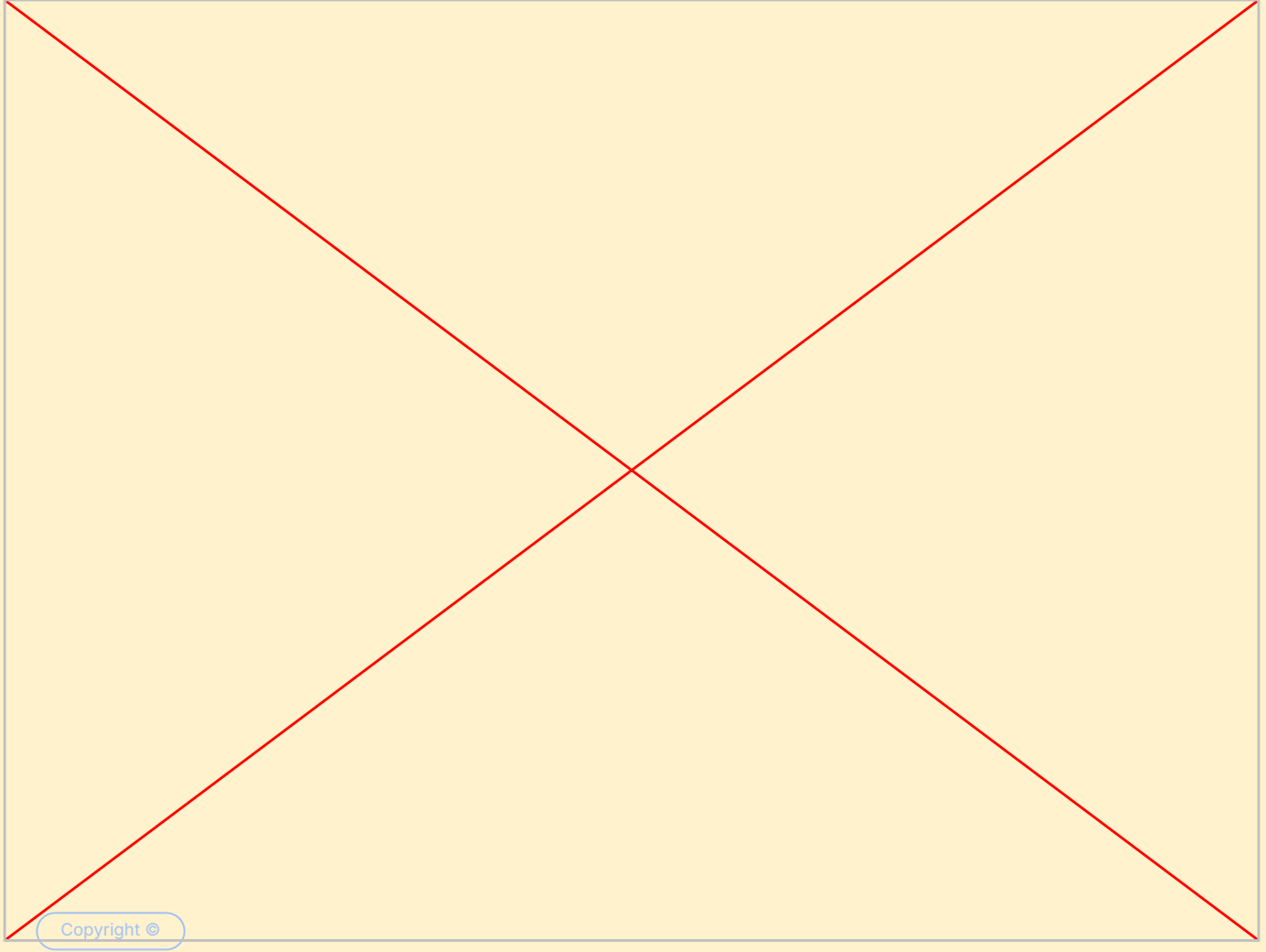
2. **Expiry Notifications with Solutions**: For items approaching their "use by" dates, the app would suggest recipes to utilize these ingredients or provide guidance on freezing techniques to extend shelf life.

3. **Personalized Recommendations**: Leveraging user data, the app would offer tailored food suggestions, aligning with individual consumption patterns and promoting efficient meal planning.

4. **Incentive Program**: To encourage consistent use, the app could integrate with reward systems, **offering points** redeemable for discounts or other benefits.

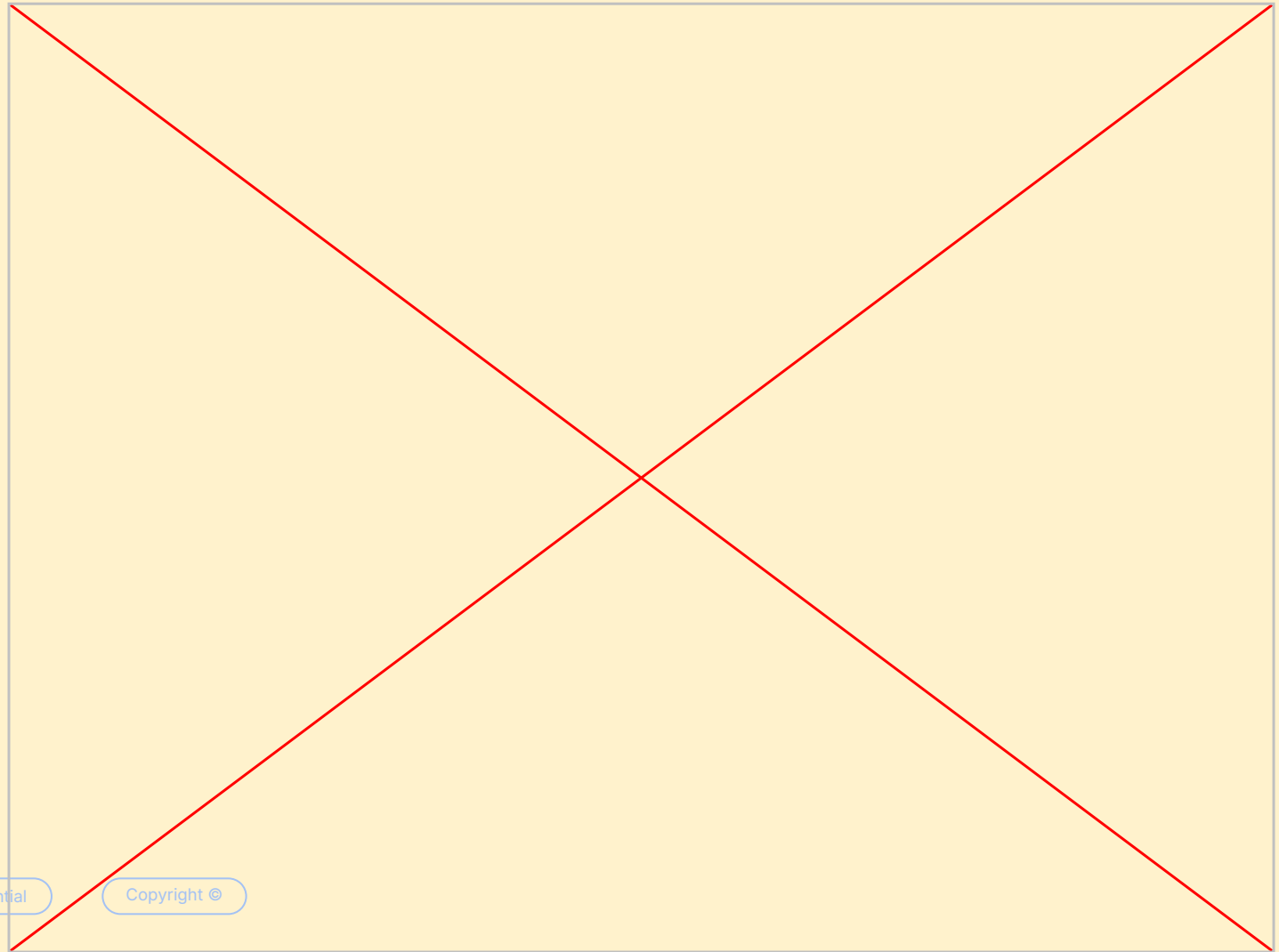
5. **Automated Grocery Lists**: Based on inventory levels and user preferences, the app would generate shopping lists, with potential integration for direct online ordering in future iterations.

Demo



Confidential

Copyright ©



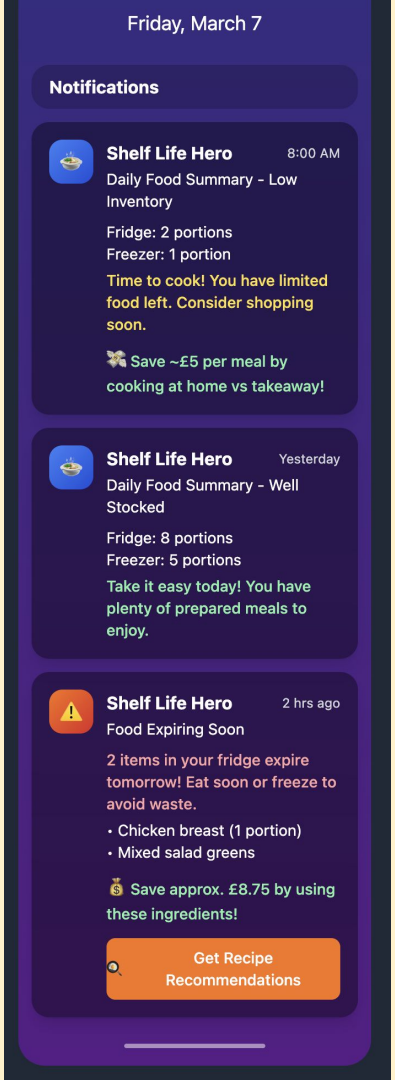
Confidential

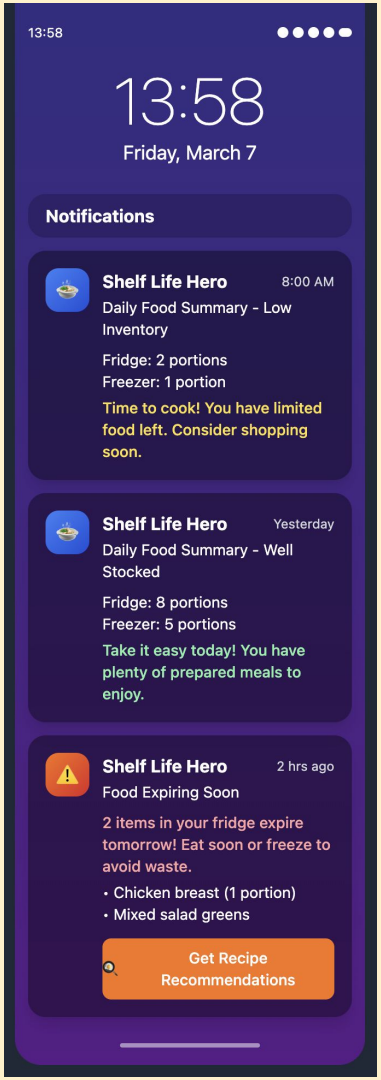
Copyright ©

Daily Notification System

Informs users of their current food status and encourages them to:

- Cook a new batch of food
- Eat a frozen meal
- Either cook with ingredients they have via recipe recommendations





Confidential

Copyright ©

Recipe Recommendation System

Shelf Life Hero

To Reduce Food Waste, We Recommend These Recipes:

Salmon with Roasted Vegetables
Expiring Ingredients: carrots (1 days), salt (9 days)

Black Bean Burgers
Expiring Ingredients: avocado (0 days), cumin (5 days), bell peppers (7 days), onions (7 days)

Pound Cake
Expiring Ingredients: flour (5 days), sugar (10 days)

Coleslaw
Expiring Ingredients: carrots (1 days), sugar (10 days)

Impact

- **Environmental Benefits:**
  Reduce food waste and lower greenhouse gas emissions, contributing to a healthier planet.

- **Economic Savings:**
  Save money by optimizing food consumption and reducing unnecessary purchases.

- **Food Conservation:**
  Maximize the use of all food items, ensuring nothing edible goes to waste.

- **Time Management:**
  Streamline meal planning and grocery shopping, freeing up valuable time in your day.

Unique Selling Points

- **Incentives**
  Earn rewards and Nectar Points

- **Gamification**
  Turn food management into a fun, competitive experience.

- **Simplified Grocery & Order Management:**
  Generate grocery lists automatically, saving you valuable time and reducing hassle.

Future Work

- **Barcode Scanning**: Simplify the input process by allowing users to scan product barcodes, automatically retrieving product information and expiry dates.

- **AI Integration**: Utilize artificial intelligence to predict consumption patterns, optimize shopping lists, and provide dynamic recipe suggestions.

- **Community Sharing**: Enable users to share surplus food within their community, fostering a sharing economy and reducing waste.

GITHUB LINK

https://github.com/Prajit-Sengupta/Food-Wastage-ElectricTwin

THANKS!!
We hope you'll join us in transforming food management—become a Shelf Life Hero