

Food Tastes Best When It's Fresh

# Cheif

**Make Every Grocery  
Penny Count**

Presented by

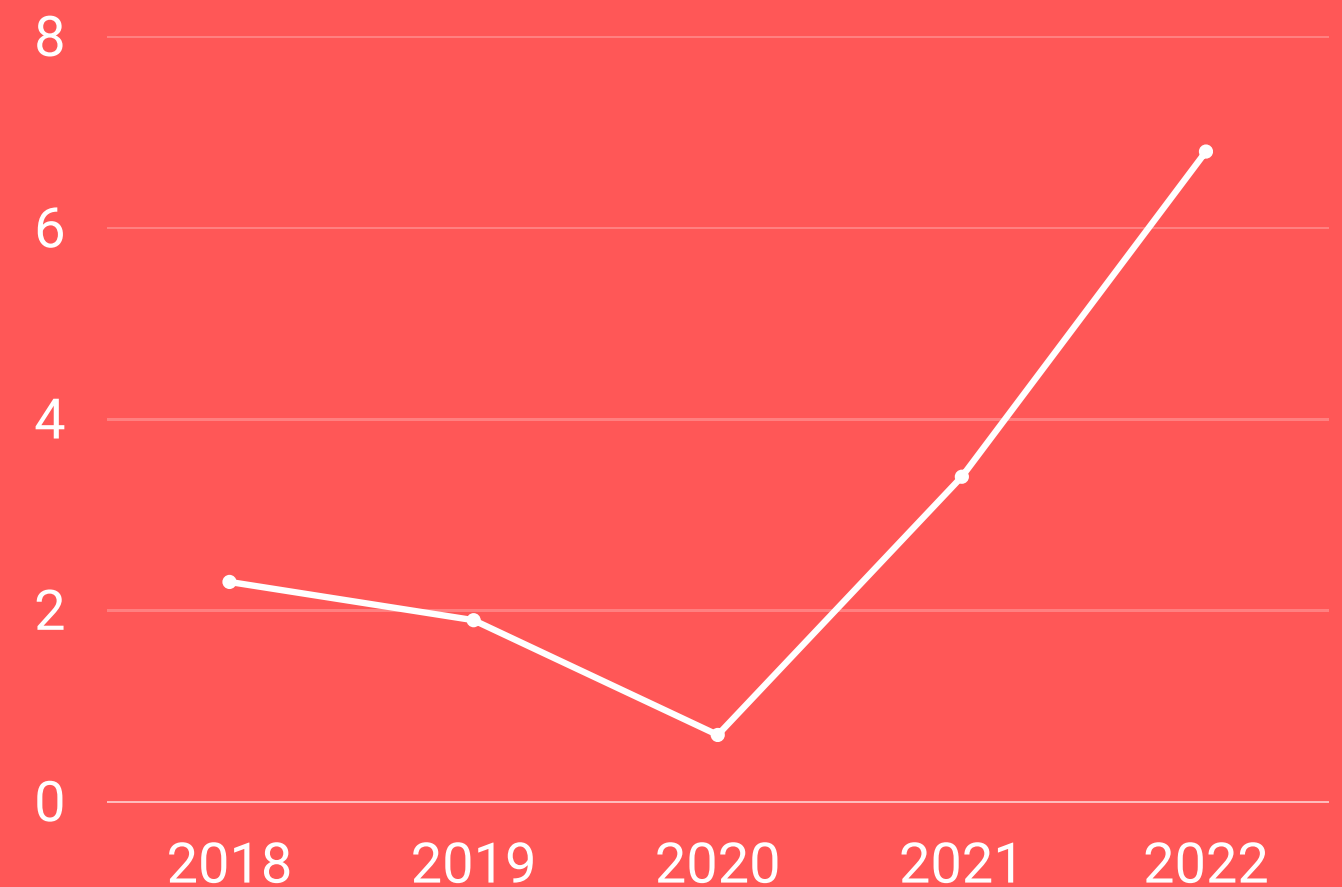
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# Problem

While Canada's overall inflation rate topped out at eight per cent this summer, food prices went well beyond that pace, clocking in at a 10.1 per cent annual gain as of the end of October

Inflation rate in Canada over the last 5 years



## Grocery shoppers are particularly getting hit by higher price levels

Over the last two years, Canada has experienced inflation levels not seen for decades, significantly impacting the local purchasing power of its citizens.

# Problem

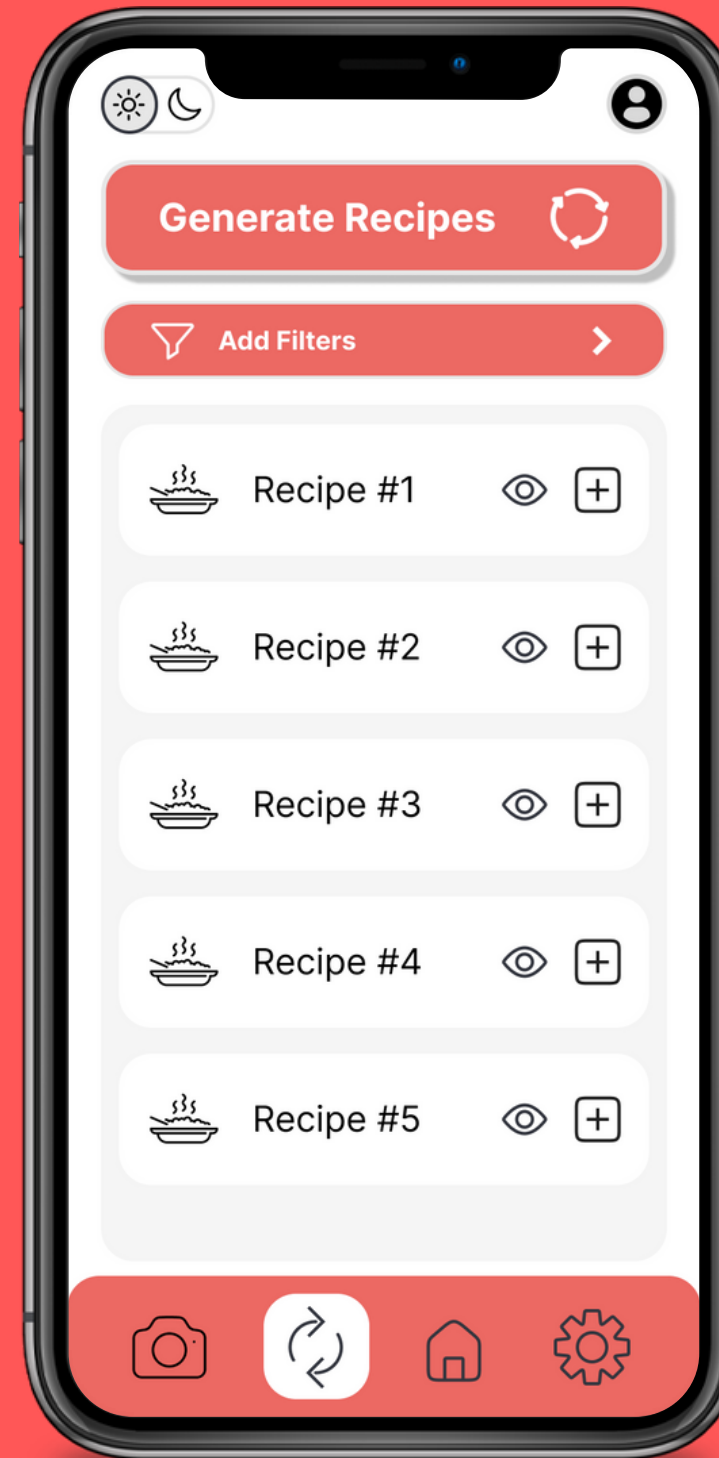
The average Canadian household generates 372 pounds of avoidable food waste each year, representing the equivalent of 31 (12 lbs) pumpkins per year.

# 2.2 Million Tonnes

**of edible food is wasted each year, costing Canadians in excess of \$21 billion**

Wasted food squanders the resources used to grow, produce and distribute that food to consumers and produces greenhouse gas emissions that contribute to climate change. This is equivalent to 6.9 million tonnes of CO<sub>2</sub> or more than 2 million cars on the road.

# Introducing Chelf,



## the one-stop-shop food and meal management app

Because food tastes best when it's on time!

# Solutions



## **Scan your receipt and keep track of your spending**

You can decide to either take a picture or upload an image of your grocery receipt and we will store a record of the purchase in the app.



## **Monitor your food stock digitally and restock seamlessly**

Using the receipt, we leverage natural language processing (NLP) to fill up or update your food stock, allowing you to know what you have on hand at all times.

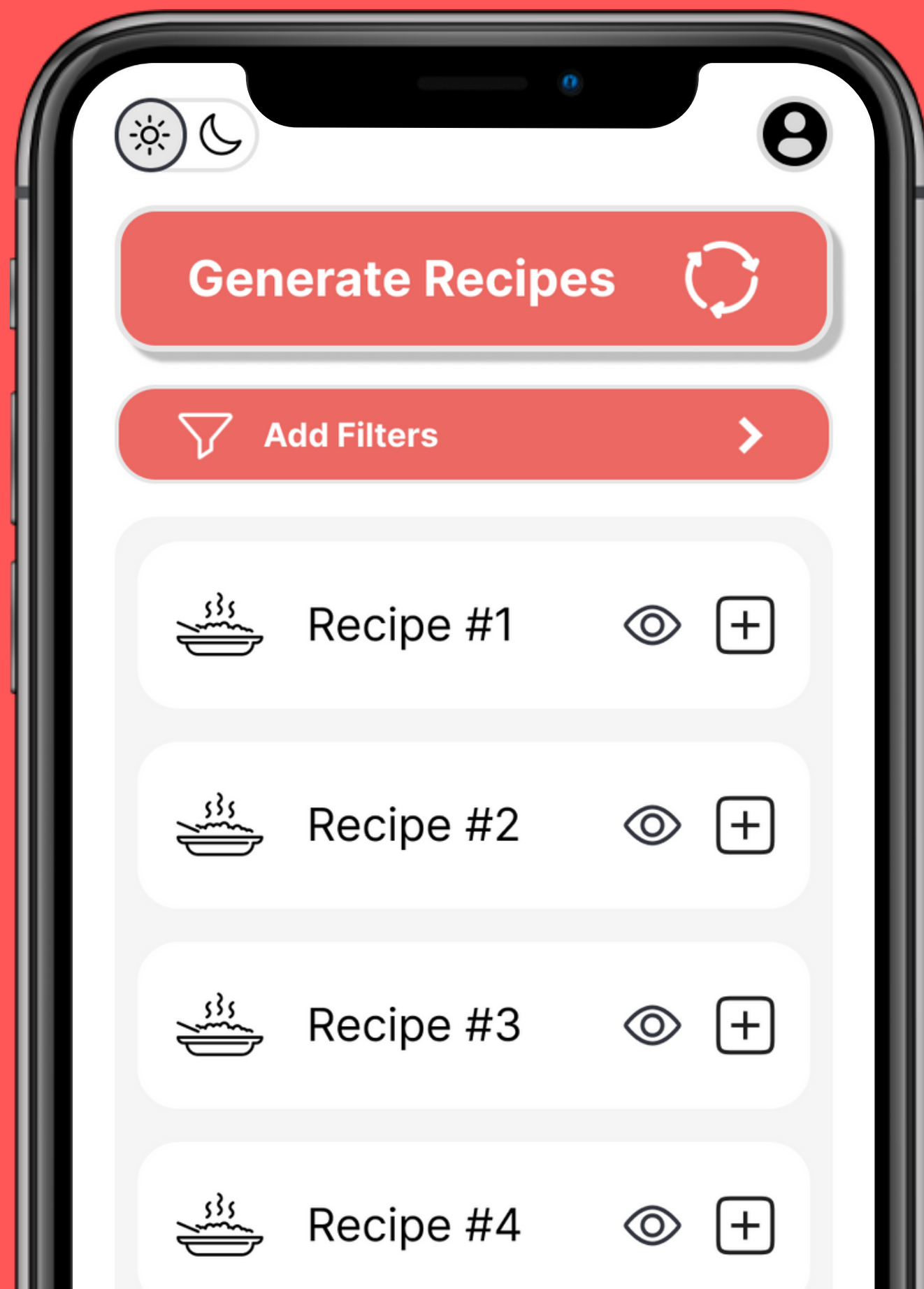


## **Generate recipes that optimize the use of food already in stock**

Generate recipes made out of as many ingredients you already own as possible, allowing you to minimize your food waste and make the most out of your money.

## Stack:

- **Frontend: HTML, CSS, React**
- **ML models: Python**
- **Database: PostGresql**
- **Backend: React, Flask**



# Demo

# ML models used:

- We used AWS textract API with the help of Mely.ai to to extract the text from the pdf/image and convert it to a dataframe
- We used the classify API from Coveo to help us classify the food categories
- Other ways to implement: using openCV and easyocr modules to extract text, and then train a machine learning model on a large dataset of food items for categorization
- We decided to use the APIs because they had very high accuracy
- The solution provided by Mely.ai help[ed to shorten our production time



# Scaling and Future

We will be adding more features:

- Creating personal profiles
- Allowing users to share recipes with other app users
- Adding notifications to notify the users about their pantry stocks
- In-app tab that shows nearby groceries where we can find the required groceries for the recipes
- Daily recipe recommendations and Top picks feature
- Adding an explore tab
- Include more recipe categories
- Scaling our database infrastructure and the ML models used

**Thank You!**