Grocery Recommender

Eat well, Be well

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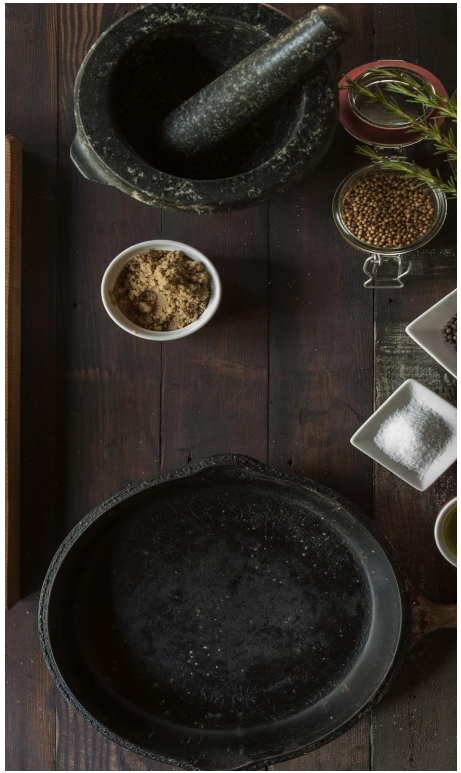
Motivation

- ❑ Coronavirus impact
- ❑ Stay-at-Home order
- ❑ Short supply of grocery items
- ❑ Forget to buy items intended to buy
- ❑ Amazon fresh & instacart delivery slot hard to find
- ❑ Difficult to meet shopping needs

Goal:

Save your time and complete your list

DEMO



About the data

- Customer orders dataset from instacart in 2017 with 32,434,489 orders' records
- Two tables from dataset: products and orders

Features included:

- Products: product name, product ID
- Orders: order ID, product ID, add to cart order, reordered times

To generate grocery lists, this application will first prompt users to input one item on their current grocery list, and then make recommendations based on market basket analysis.

Algorithm & Success Metrics

- Algorithm: market basket analysis by association rule mining via apriori to identify underlying relations between different items in orders, i.e. pattern in what the customers buy.
- Example: mothers buy baby products such as milk and diapers together.

- Success Criteria:
  - Ability to capture user's preferences
  - Score: fraction of n recommendations are "good"
  - Score ≈ 0.4 implies giving users matching results on their list 40% of the time in average
  - Satisfaction survey: level from 0 to 5, take average ratings

Insights

- Orders' history reveals bananas are number 1 supermarket impulse buy
- 472,565 out of 3 millions records ≈ 1.5%
- Most consumers only want to buy and eat spotless yellow bananas, even though they are edible when both bright green and completely black. This probably explains why grocers would consistently go back to reorder them again so that bananas are in their best color stage.

Thank you!

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