

# Hello!

Welcome to Rechel's Product  
Recommender for Online Grocery

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# Introduction

## Problem Statement

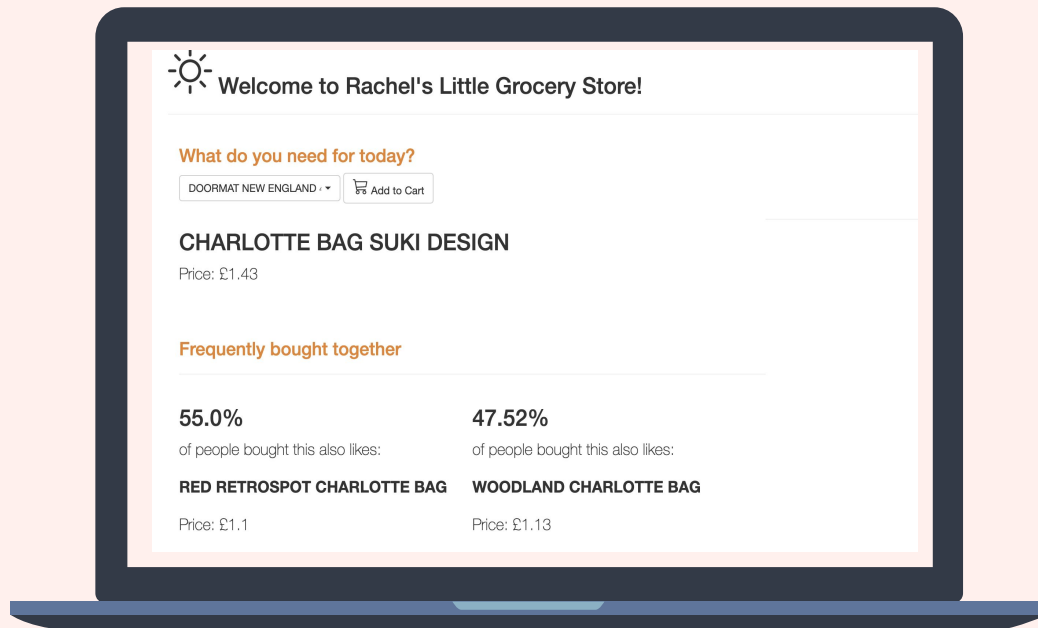
Retailers can never assume that the customers know all of their offerings. But rather, they must make efforts to present all applicable options in ways that improve customer experience and increase sales. While brick-and-mortar shops guild customers' shopping experience with salespeople, online retailers need to find their way to give specific product recommendations

## Mission

The app will prompt users to select an initial product into the cart and then recommend two products frequently bought together



# Demo



# 1,036,877 valid records

Transactions for a UK-based online retail between  
01/12/2009 and 09/12/2011

# 39,516 orders

Top 100: 31,441 (80%)

# 4878 products

The app only uses data of top 100 products



# Market Basket Analysis

- ✓ Identify item sets with large support  
2<sup>p</sup> possible item sets: p denotes the number of products
- ✓ Recommend two products with highest confidence of the associate rules

Confidence: If product A is in a cart, what is the probability that product B is also in that cart

- ✓ Evaluation

The average test accuracy of the first recommendation is 0.44.

The overall average test accuracy is 0.38

Better criteria: sales increase from A/B testing



“10 years ago, people in the United Kingdom really likes tea-light holders.

28.47% of orders contains at least one of them.



# Thanks!

