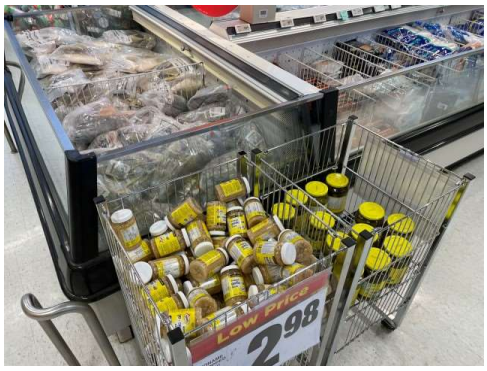
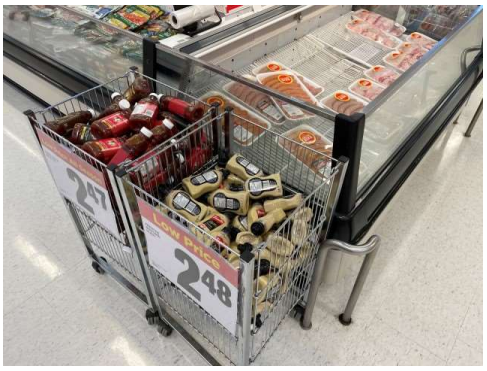
Assignment #2 - Instructions





For **Assignment #2**, assume our goal is to maximize this cross-sell opportunity throughout the store (profitability and margins are not of major concern).

You may assume the bins in these photos are the specific type of bins that we've ordered.

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Assignment #2 - Instructions

1. **Analyze the transactional sales data from our grocery store**
   - Feel free to use whatever tool you like (SQL or Python might be good practice for future)
   - Random teams of 5 will be set in Canvas
   - Do the initial analysis and assessment on your own, and then compare & discuss within your group to finalize recommendation
2. **Present top 10 potential product pairs to promote with our new product bins**
   - **From the top 10, select your top 5 as the final recommendations along with reasoning**
   - Indicate which product to be in the bins, and which product sets the location
   - Goal = to maximize cross-sell opportunity and overall customer shopping experience (no need to consider profitability and profit margins)

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Assignment #2 - Deliverables

You may also consider combining slides 2 & 3 in your own way if it better suits how you would like to deliver your recommendations

Deliverable: Slide Deck, 3 slides max, same format requirements as Assignment #1

1. **Slide 1 (final 5 pairs)** – describe your top 5 product pairs and some comment on why you've selected them (e.g. based on which metrics, and what do these metric mean in real life)
2. **Slide 2 ("runner ups" 5 pairs)** – describe an additional 5 product pairs worth mentioning from your analysis and why they were good but not selected as your top 5, plus optionally, any additional relevant analyses / calculations / comments etc… that you think might be useful to persuade the audience
3. **Slide 3 (appendix)** – provide a table with all of the calculated metrics for the 10 product pairs
4. **Slide 4 (optional)** – describe any application of AI (input & output)

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Example Executive Summary

Customer shopping behavior was modeled using a Basket Analysis framework in order to identify potential product for promotion in sales bins within our stores.

Our model assessed **XX** product pairs across **XX** transactions during the **XX** time period. The following 5 product pairs are recommended based primarily on their high **Support** and **Lift** metric as a reflection of their purchase affinity.

- **Product A** in bin, next to **Product B** location
  - Reason from analysis, for example: this combination appeared in 1.5% of all transactions, which is 2.1x greater frequency than expected
- **Product C** in bin, next to **Product D** location
  - Reason from analysis

For clarity and text reduction, consider using a table to communicate your recommendations

No need to repeat the reasoning for every pair if it's simply based on a metric ranking

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