

## The Project

There are two sections of this data — Offer Usage and Point of Sale (POS). The offer usage demonstrates how customers interact with the offer, the POS data shows what customers purchased. These two data sets aren't related and shouldn't be compared or correlated.

### Offer Usage

There are two basic events that can take place — 1) Offer Viewed, which is basically an impression and implies that a user has “seen” the offer or opened it on their phone and 2) Offer Redeemed, this implies they actually redeemed it in the store. I'd like you to pull together a quick deck that answers some of these questions:

- On average, how many offers are viewed and redeemed by each unique customer?
- How do offer views and redemptions differ by retailer?
- How do offer views and redemptions differ by distribution channel type?
- Are there certain offers that are more successful than others and if so, by how much?
- How is offer view/redemption performance impacted by time of day or day of the week?

### POS Data

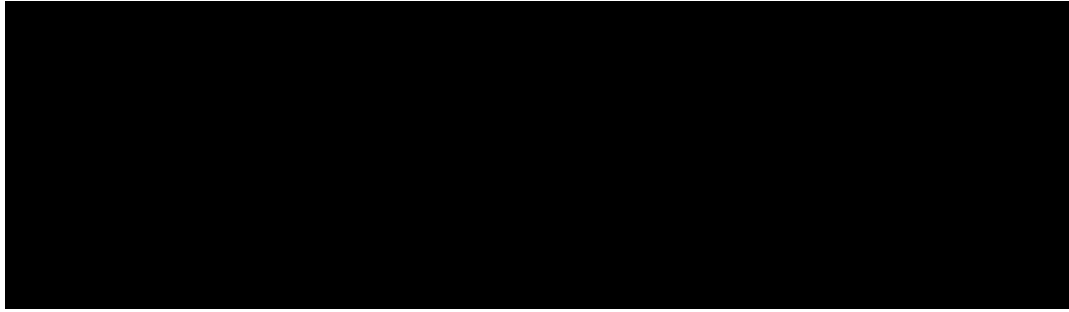
In the POS data, each unique transaction ID represents a customer transaction or in retail terms, a “basket.” As you can see, some customers only buy one product, others buy many. Here are some of the things I'd like you to answer in the second portion of the deck:

- How many items does the average customer buy?
- How much does the average customer spend?
- What's the statistical distribution of how much a customer spends or how many items they buy?
- How do these metrics vary by retailer?
- How do the products compare to each other in terms of popularity and price?
- How are purchase patterns impacted by time of day or day of the week?
- Are there products that are more likely to be purchased together? If so, can you quantify this?

### SQL Requests

Separate from the analysis deck, please provide SQL statements to the following requests using the POS data:

- Create a table to store the POS data
- Create a table to store the Product UPC Key data
- Join the Product Names to the POS data
- Select and count the number of unique transactions by retailer on 3/3/18 and 3/4/18
- Select and return only the retailer with highest total sales and that retailer's total sales number

**Sample Data Worksheet.xlsx**

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