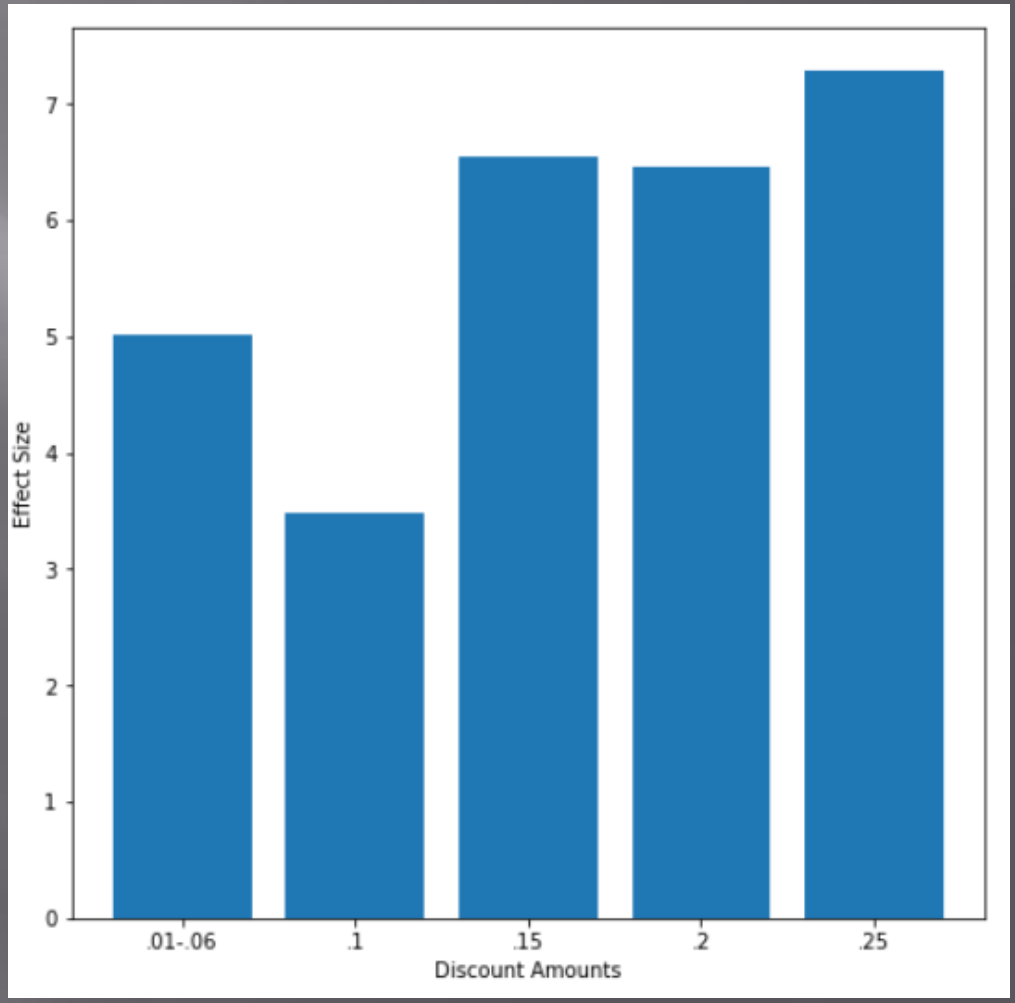
HYPOTHESIS TESTING WITH THE NORTHWIND DATABASE

- Discount Levels
- Product sales by product
- Product sales by category
- Best employee by sales amount

Discount Levels

- Difference between the mean sales of each with respect to the non-discount sales



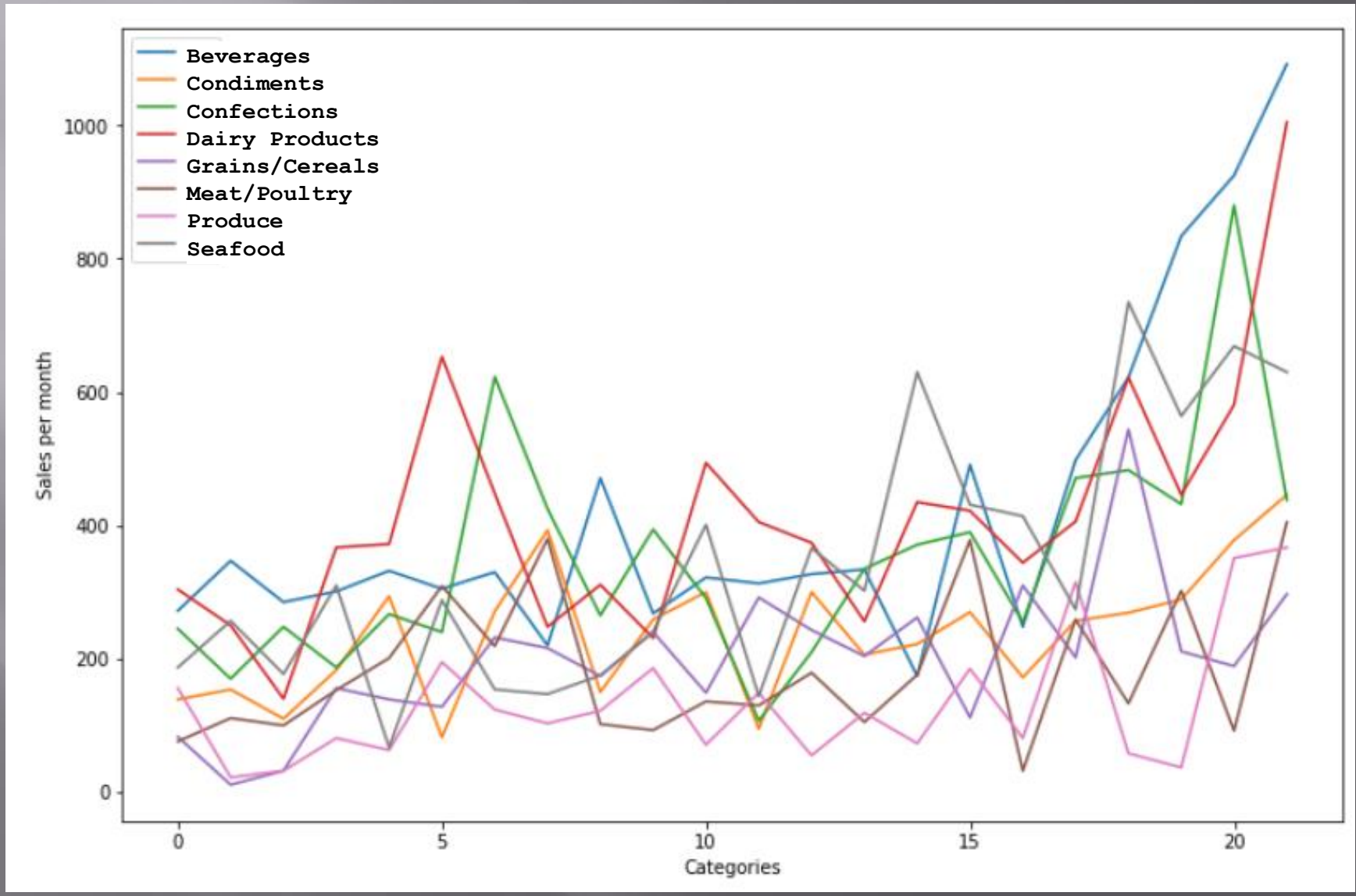
Product sales by product

- Mean > 26 & Number of orders > 38
- Total items ordered over 1015, that are not in the above list
- Best product: Number 60

ProductId	Mean_ordered_per_order	Number_of_orders	Total_ordered
16	26.930233	43	1158
21	26.051282	39	1016
31	27.392157	51	1397
40	26.902439	41	1103
59	27.703704	54	1496
60	30.921569	51	1577

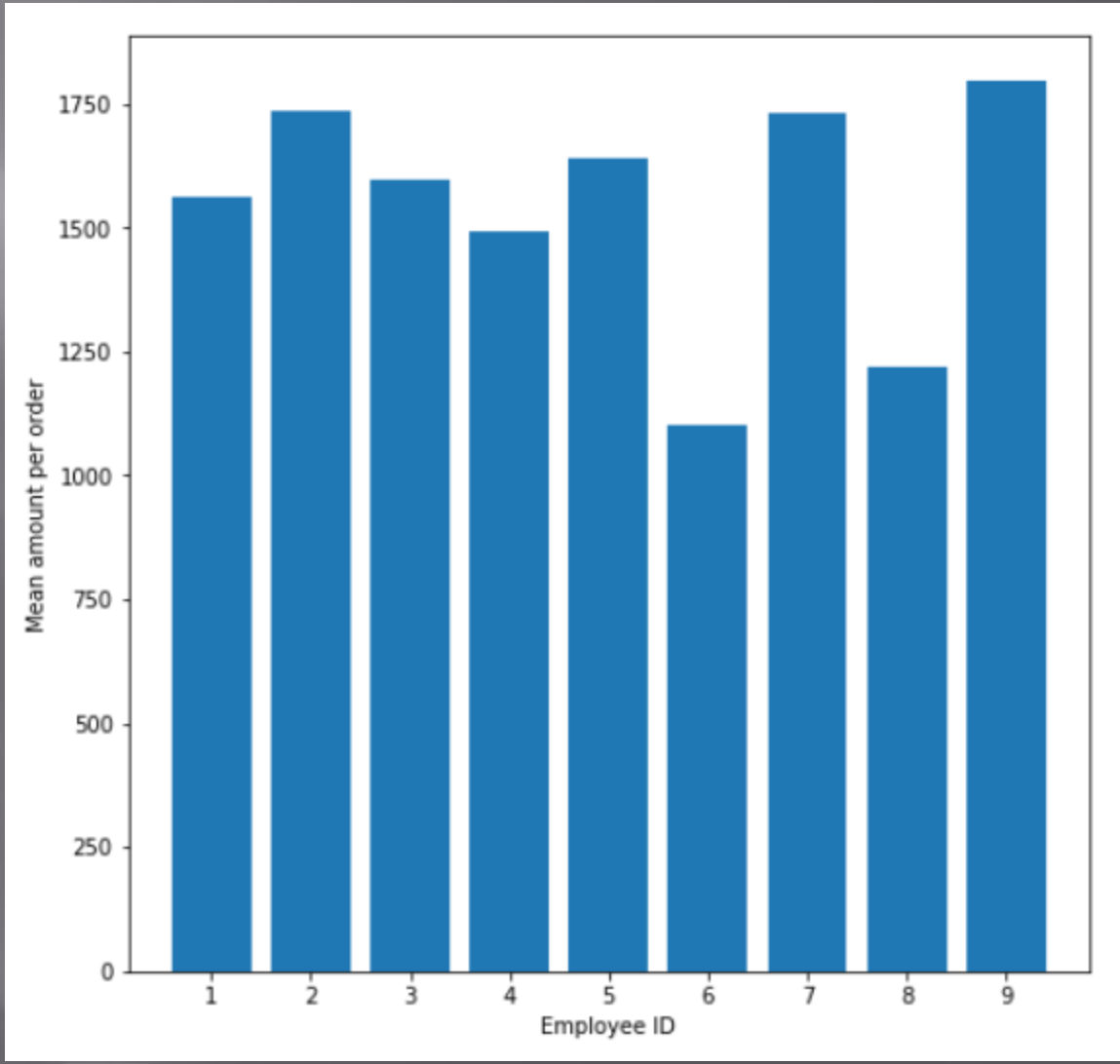
ProductId	Mean_ordered_per_order	Number_of_orders	Total_ordered
56	25.260000	50	1263
75	25.108696	46	1155
24	22.058824	51	1125
62	22.562500	48	1083
2	24.022727	44	1057
71	25.166667	42	1057

Product sales by category



Best employee by sales amount

- Can not find an Employee that is statistically, significantly better by mean sold per sale



Recommendations

1. Using .05%, .15%, .20% and .25% as discount amounts to try and drive sales.
2. I would suggest the company focus on 60, 16 and 31
3. Focusing on seeing what other products can be sold in categories Beverages, Confections Dairy Products and Seafood.
   At the same time try to get better at selling in the categories Condiments, Grains/Cereals, Meat/Poultry and Produce.
4. I can not make any recommendations with regards to the best employee

Further Work

1. Looking into 10% discounts to see if more can be found out about it
2. Checking which is the best discount for an item based on profit margins
3. Looking more into the other products that preformed best based on mean per order and total quantity sold
4. Doing more research into seeing if there is a way to figure out the best employee

Thank you for watching.

Have a great rest
of your day!

Levi Raichik