# Northwind Database Analysis

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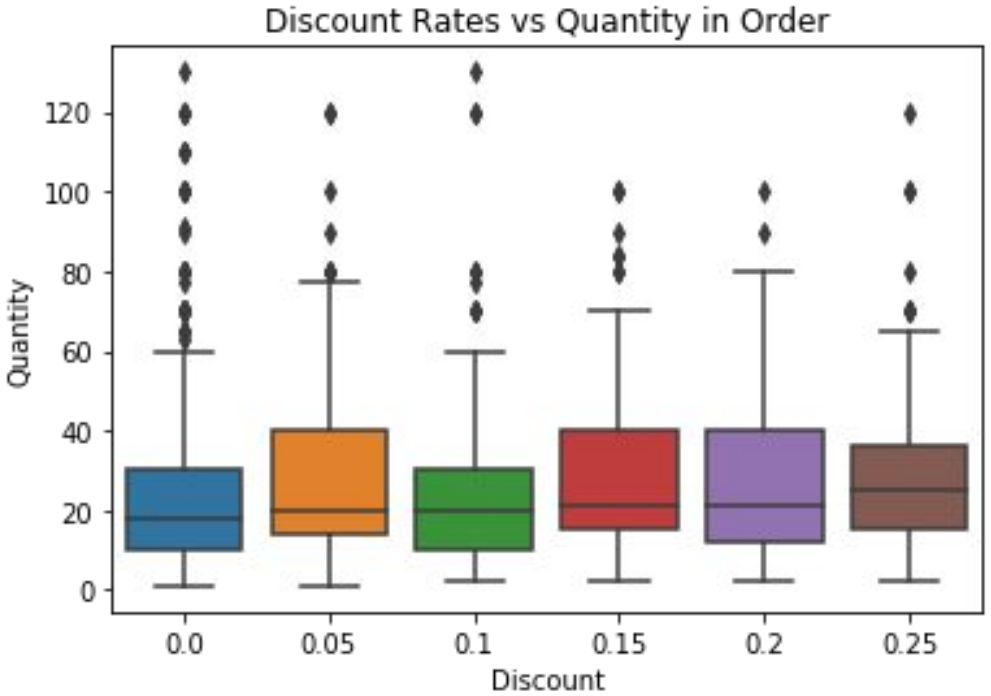
Presenter

# Analysis Questions

- **Does discount amount have a statistically significant effect on the quantity of a product in an order? If so, at what level(s) of discount?**

1. **Does the unit price significantly affect the quantity of product ordered?**
2. **Does the shipping region have an effect on the quantity of product ordered?**
3. **Does the office where an order was processed have an effect on the quantity of product ordered?**

# Discount and Quantity of an Order



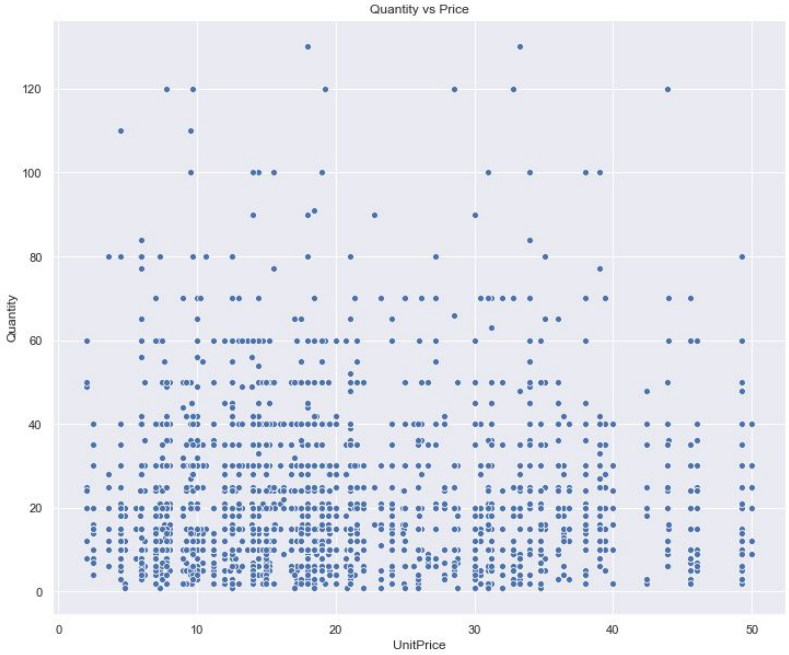
# Discount and Quantity Cont.

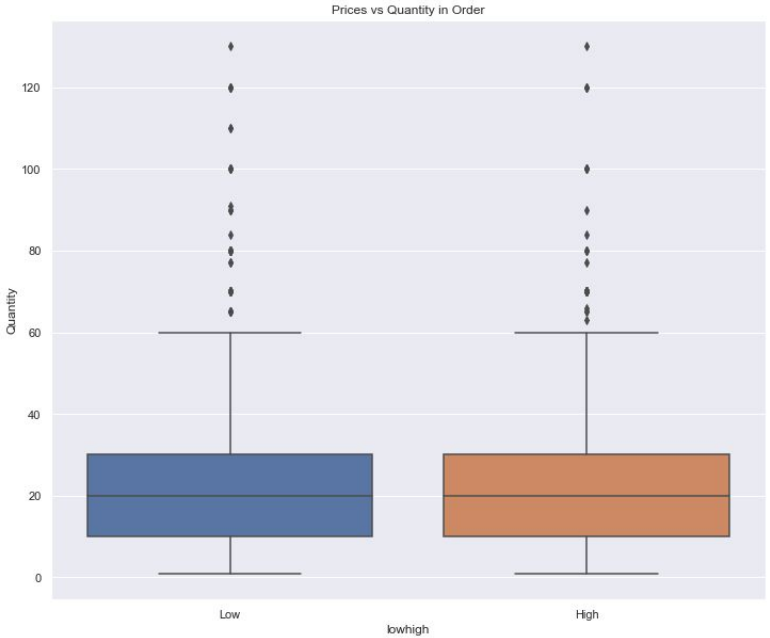
- Two-tailed t-test was done for each discount amount
  - No discount vs 5%, 10%, 15%, 20% and 25%
- Quantity of product for every discount amount was significantly different than quantity of product without a discount!
- Largest effect size (biggest difference) was seen in the 15% discount

**A 15% discount is the best discount to increase the quantity of products sold!**

# Unit Price and Quantity Sold

**Do cheaper products sell more?**

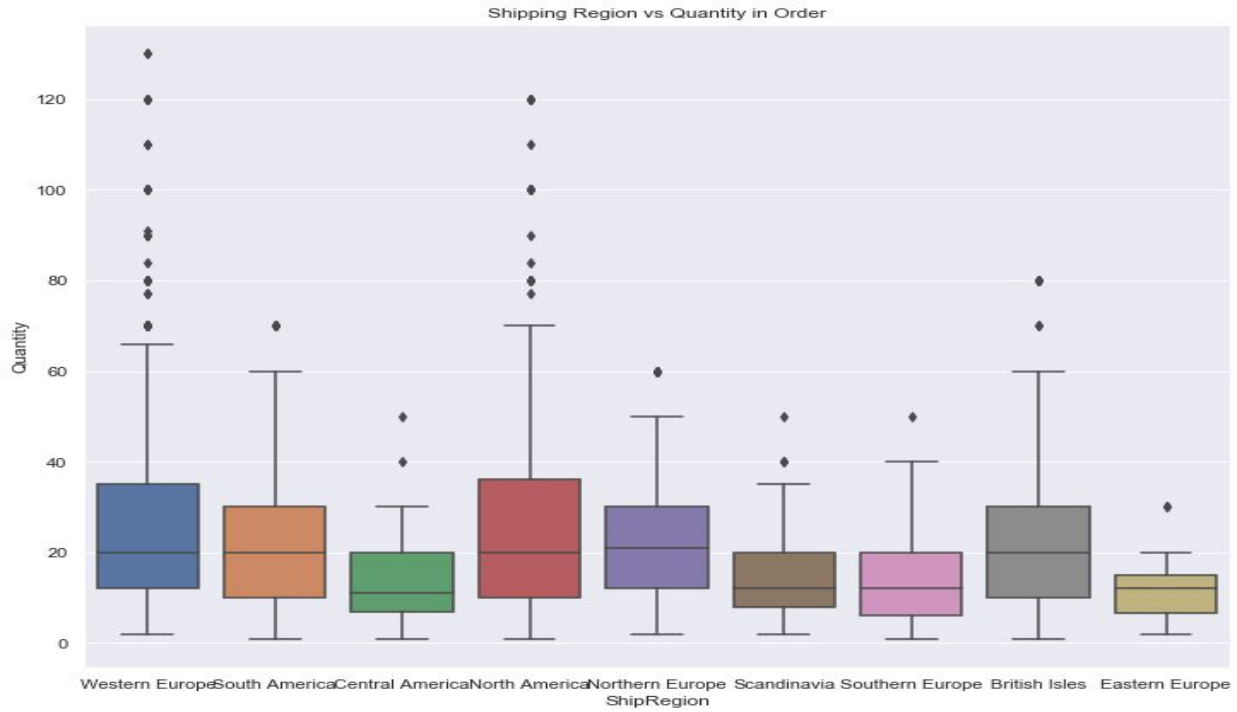


# Unit Price and Quantity Sold cont.

- A two-tailed t-test compared cheaper products (under $25) and more expensive products ($25 or more)
- The difference between the two groups in **not** significant
- Product is sold at the same amount regardless of high or low price

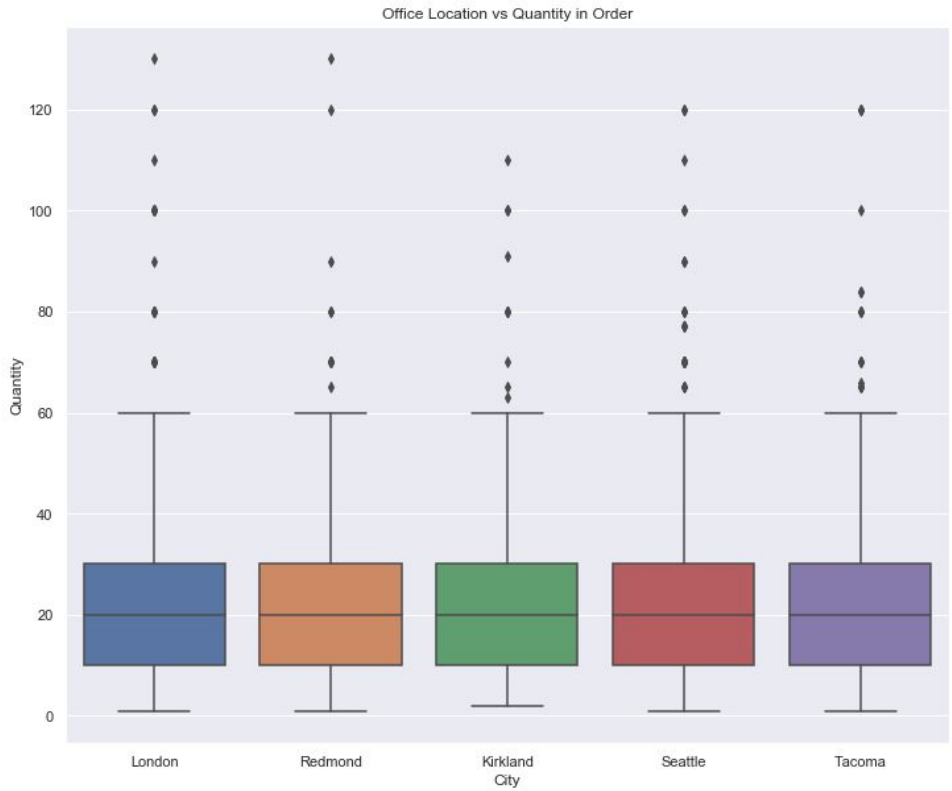
# Shipping Region and Quantity of Product



# Shipping Region and Quantity of Product cont.

- Tukey test was used to determine the differences between each region
- Many regions had significantly different quantities of product
- Biggest difference was seen between Central America and Western Europe
- The company can think about what strategies from Western Europe they can apply to Central America to increase sales

# Company Office and Quantity Ordered



# Company Office and Quantity Ordered cont.

- Tukey test used to see the differences in quantity ordered by city
- Results found that there are **no significant differences** of quantity of product ordered between company offices
- Employees in all company offices are performing equally
- Best practices cannot be identified in any office over another

# Thank you