NORTHWIND DATABASE ANALYSIS

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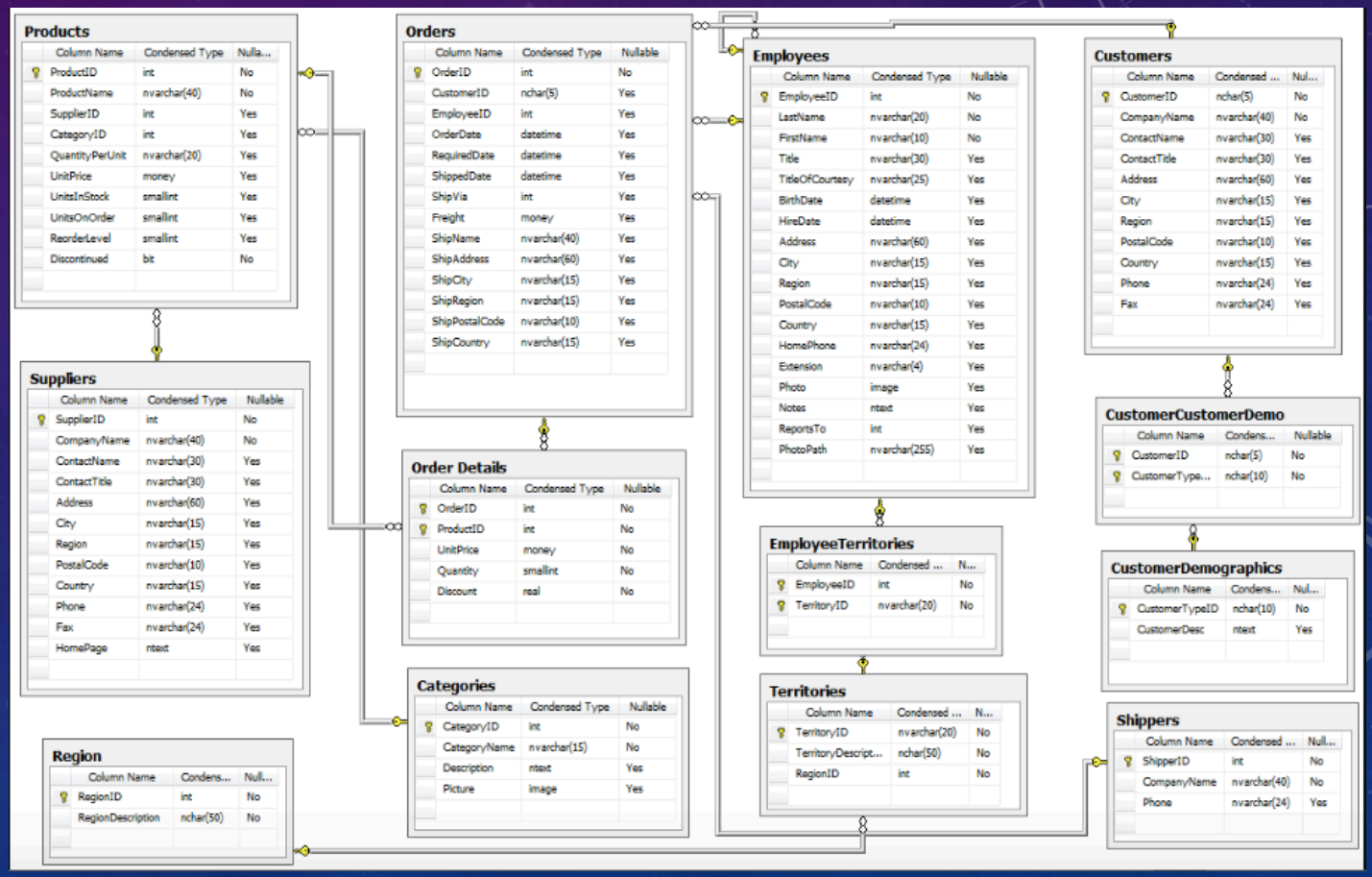
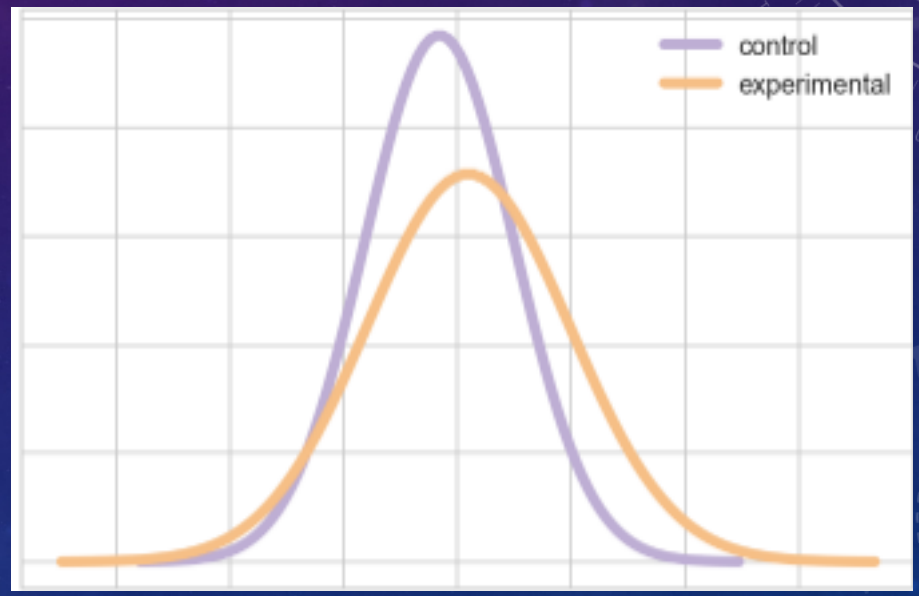
THE DATABASE AND THE METHODOLOGY

- Microsoft's fictional model of a food exporter
  - employees, customers, suppliers, and orders
- Analytical Process:
  - Retrieve using SQL
  - Define questions
  - Choose appropriate tests
  - Use Python libraries and write functions to get answers
  - Visualize results



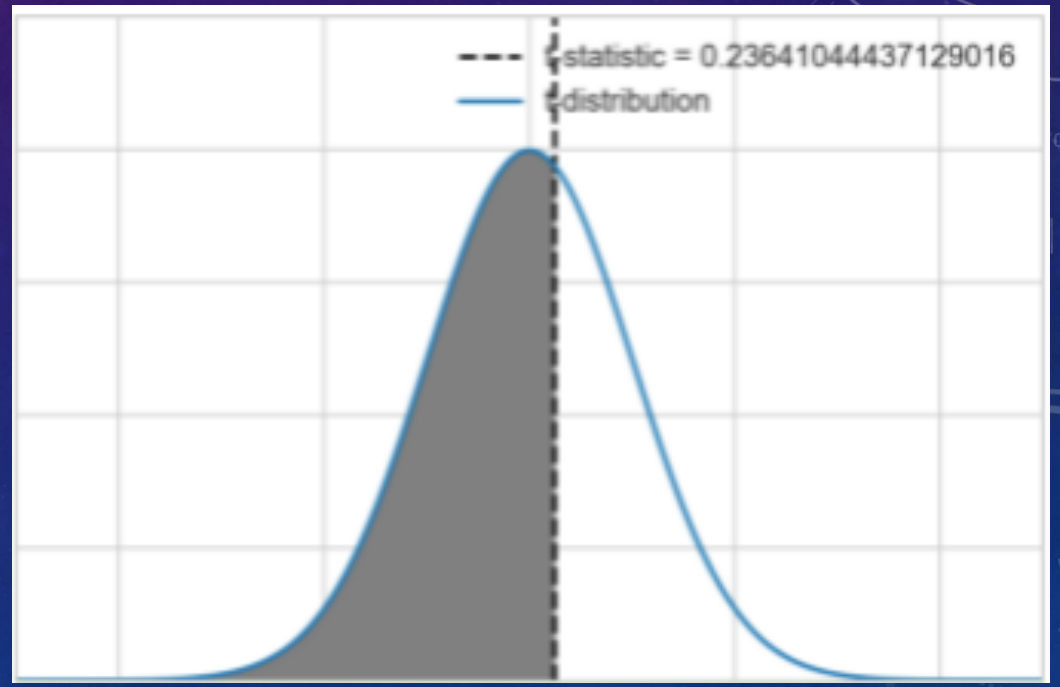
QUESTION 1: DOES DISCOUNT AFFECT ORDER QUANTITY?

- Value of interest:
  - average quantity ordered
- Result:
  - The difference is statistically significant
  - The size of the effect is small – medium
- Implication:
  - Need to get rid of a product or simply sell more of it? Offer a discount!



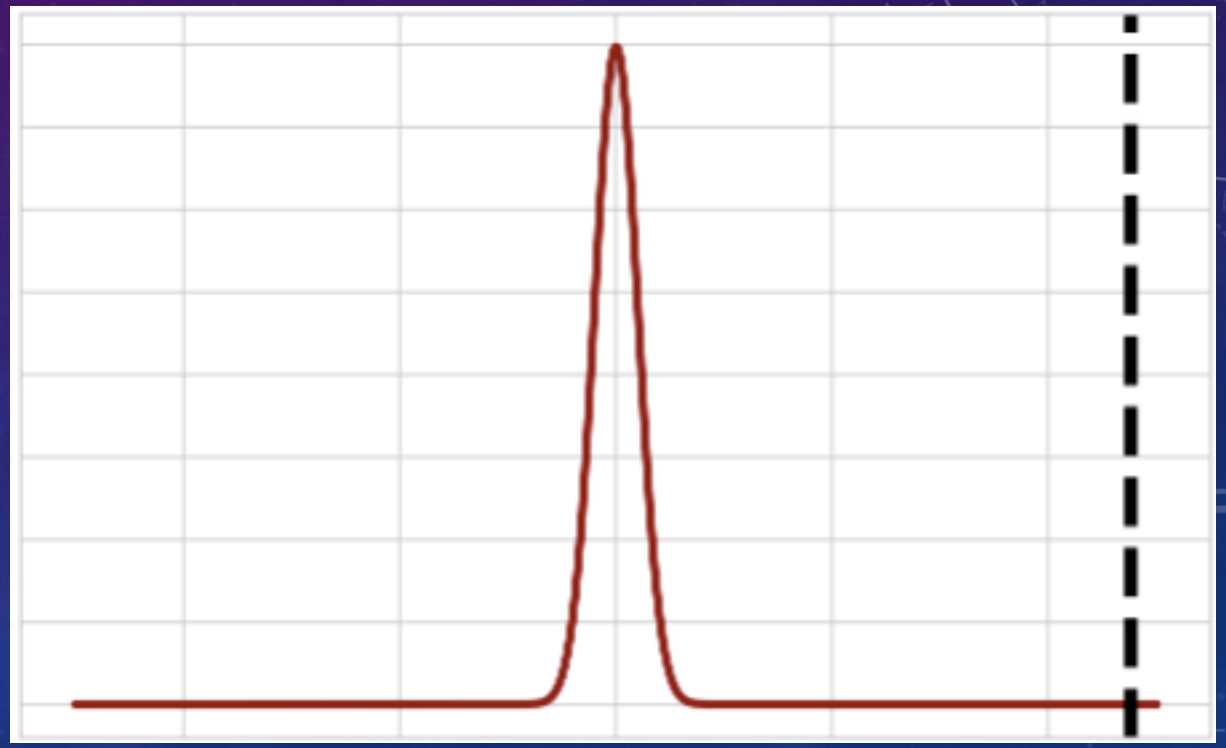
QUESTION 2: DOES DISCOUNT AFFECT REORDER LEVEL?

- Value of interest:
  - Average reorder level
- Result:
  - Difference is not statistically significant
- Implication:
  - Don’t offer a discount if you care about how often an item gets reordered
  - Instead, charge full price and discount items that you need to sell more of



QUESTION 3: DO SEAFOOD PRODUCTS GENERALLY COST MORE THAN MEAT/POULTRY?

- Value of Interest:
  - Average unit price
- Result:
  - The difference is statistically significant
- Implication:
  - Want to increase revenue? Offer more seafood products!



QUESTION 4: DO ORDERS SHIPPED TO NORTH AMERICA COST MORE THAN ONES SHIPPED TO EUROPE?

- Value of interest:
  - Total cost (quantity * unit price)
- Result:
  - The difference is statistically significant
- Implication:
  - Getting more orders out to North America will bring in more money!