



Insights into Northwind

With a Focus on Generating the Most Revenue



Methodology

Mainly used Mann Whitney U test and ANOVA testing:

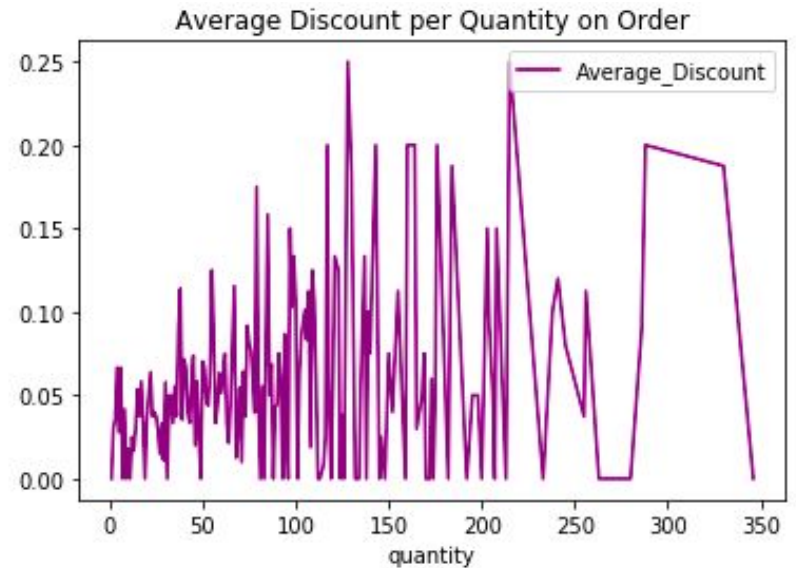
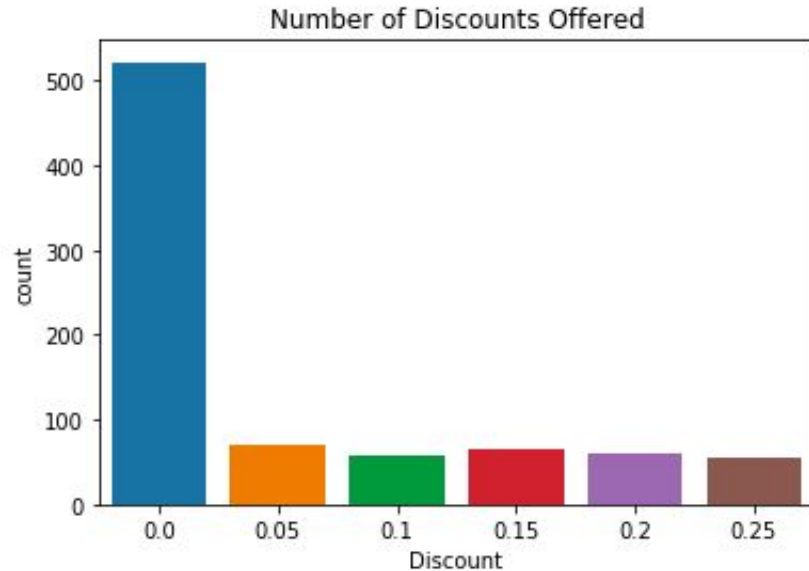
- Mann Whitney U Test is used to test two independent samples, testing the hypothesis made for the questions posed.
- ANOVA Test is used when trying to check if there are differences between two groups.
 - Paired with Tukey HSD test states where exactly the differences are, if there's any.

The goal is to be able to conclude with a 95% confidence level in the results pertaining to revenue generated.

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

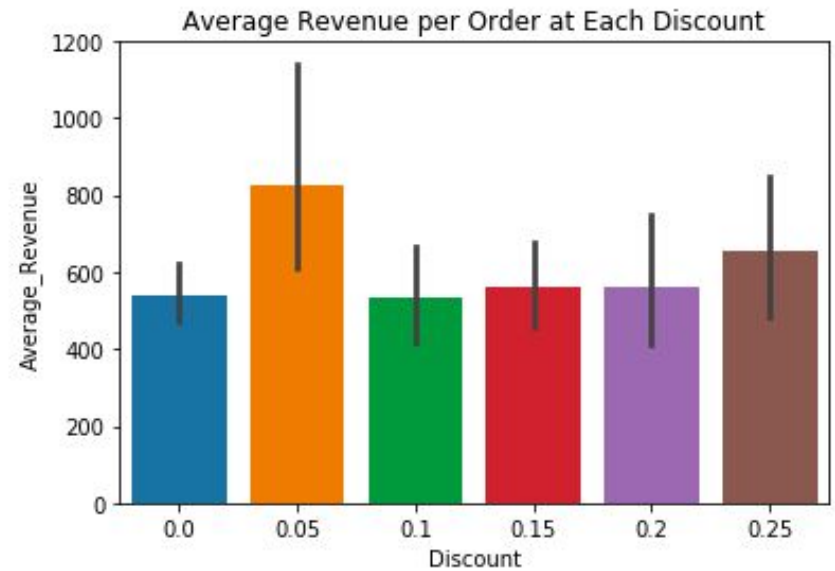
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Discount Amounts and Quantity



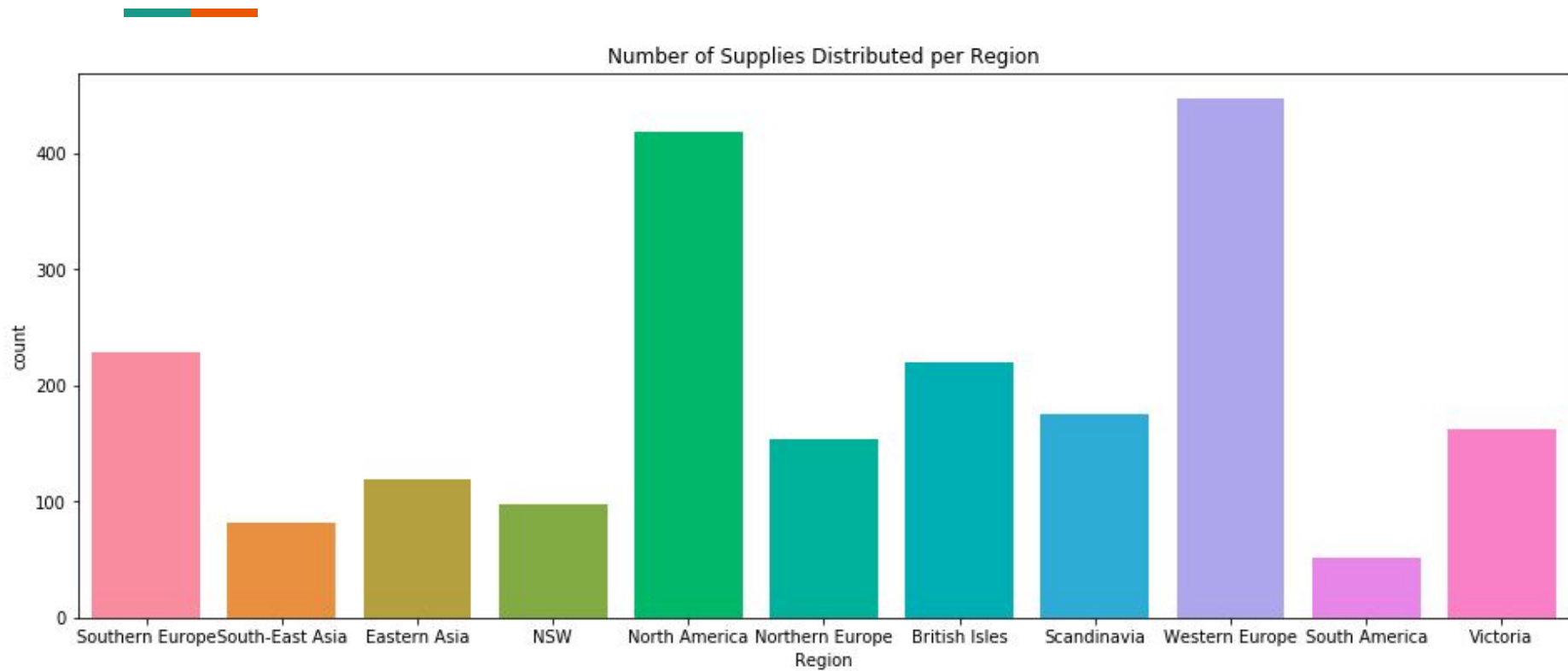
Suggestion

Offer only one discount at 5%.



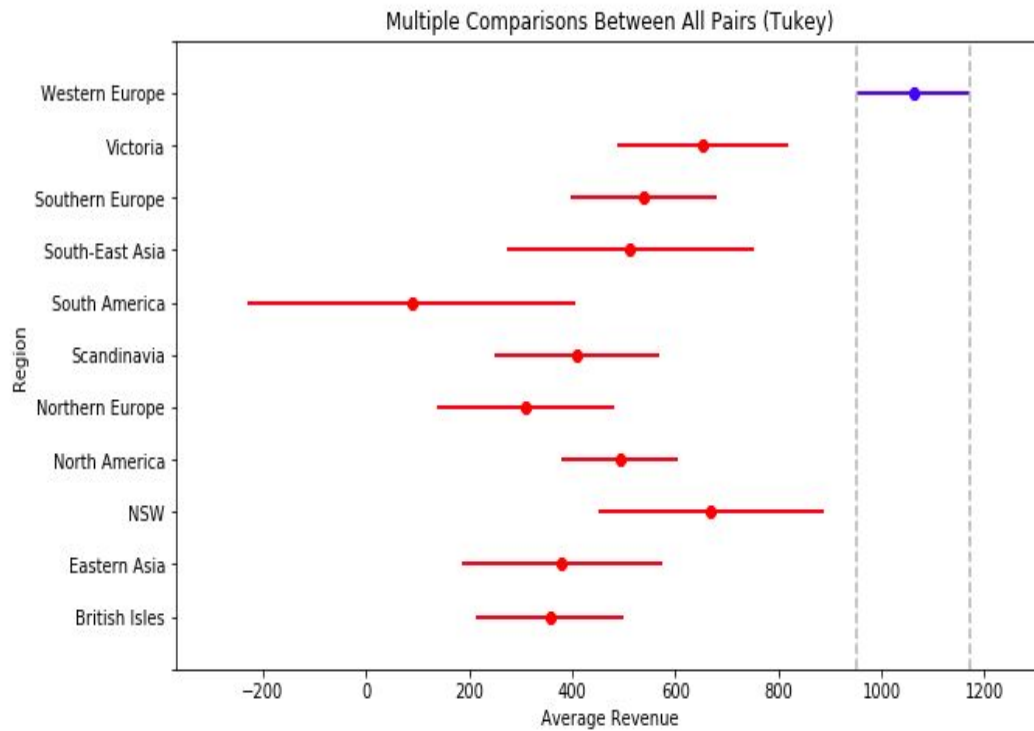
**Do suppliers from some regions
generate more revenue than others?**

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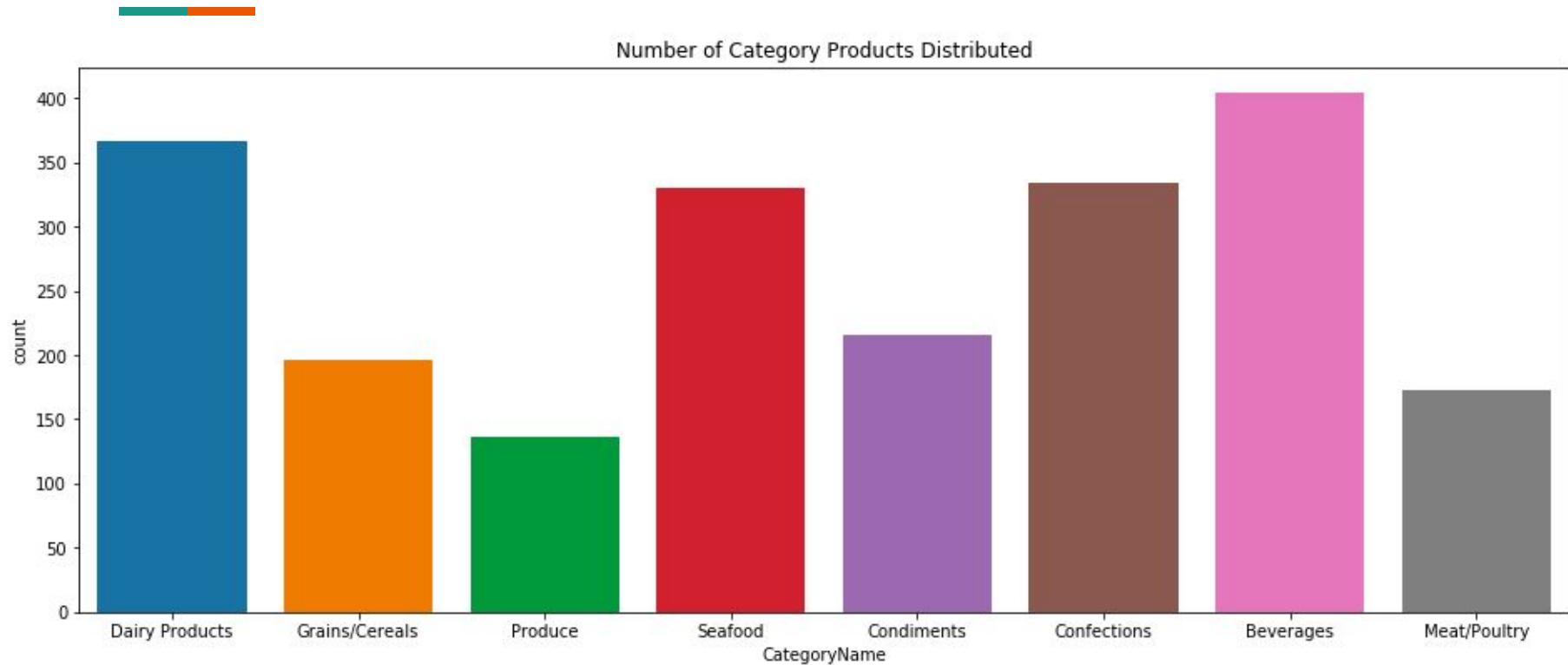
Suggestion

Consider looking cutting back on supplies from North America.



**Is the revenue different for the
different types of categories being
supplied?**

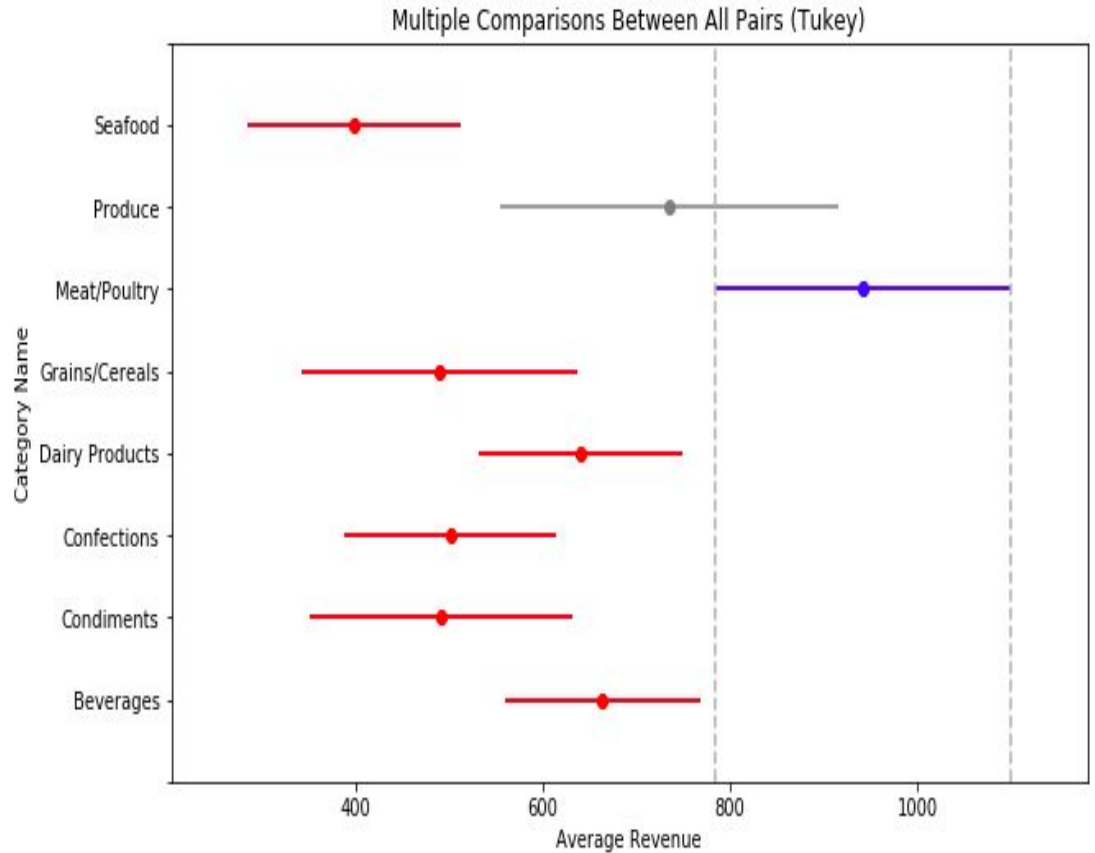
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Suggestion

Increase the meat/poultry and produce inventory.

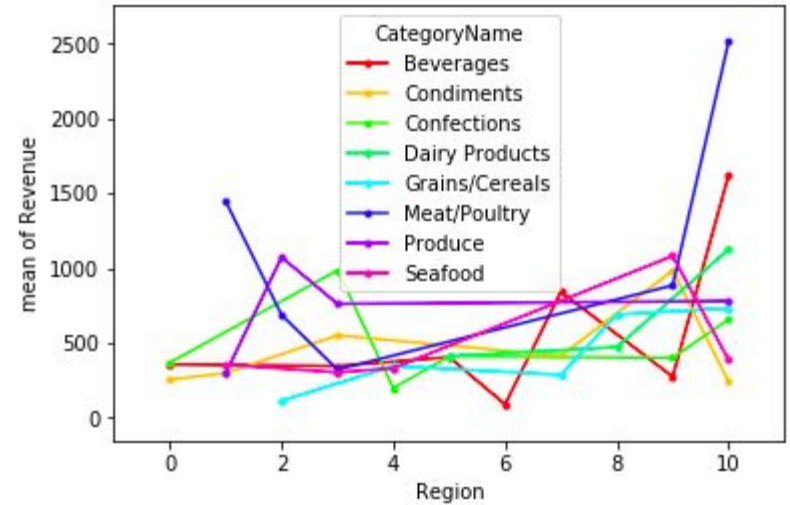


Is the average revenue from a supplier in a certain region different depending on the category that it is supplying?

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Suggestion

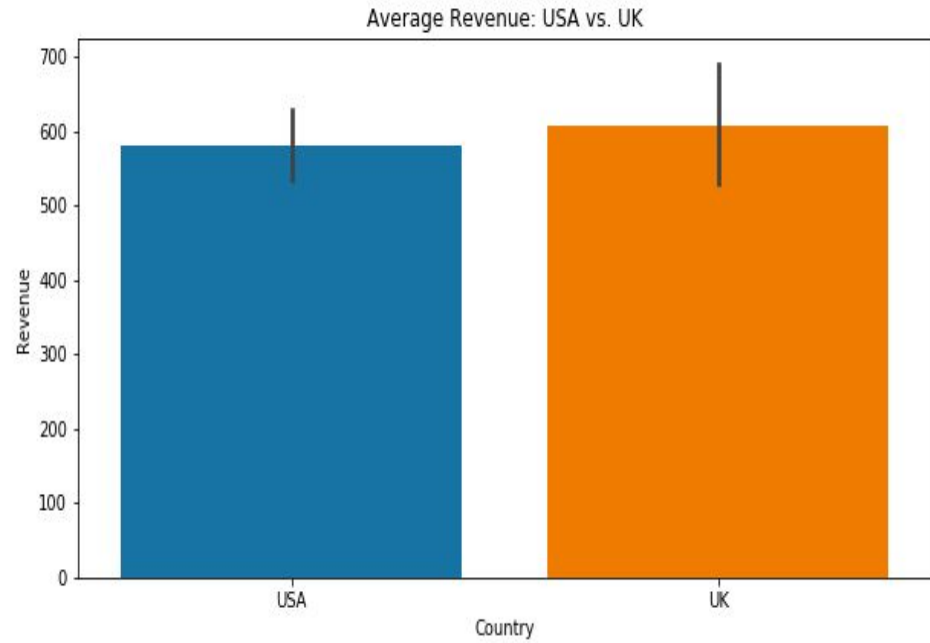
Consider dropping British Isles as a region that supplies products.



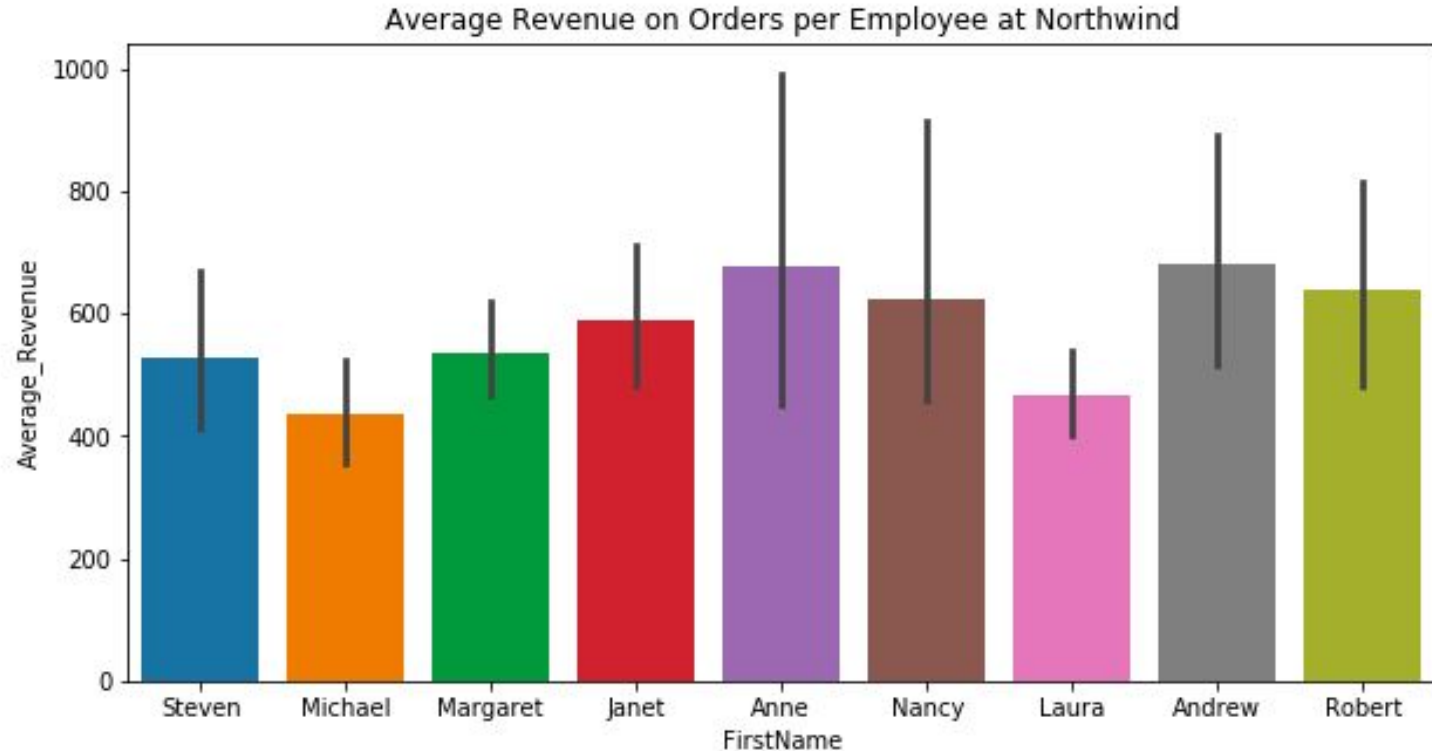
Do employees from USA or the UK generate more revenue? Do some employees generate more revenue than others? If so, which employees? Does their title affect their sales in any way?

USA vs. UK

No difference.



Employees and Their Titles

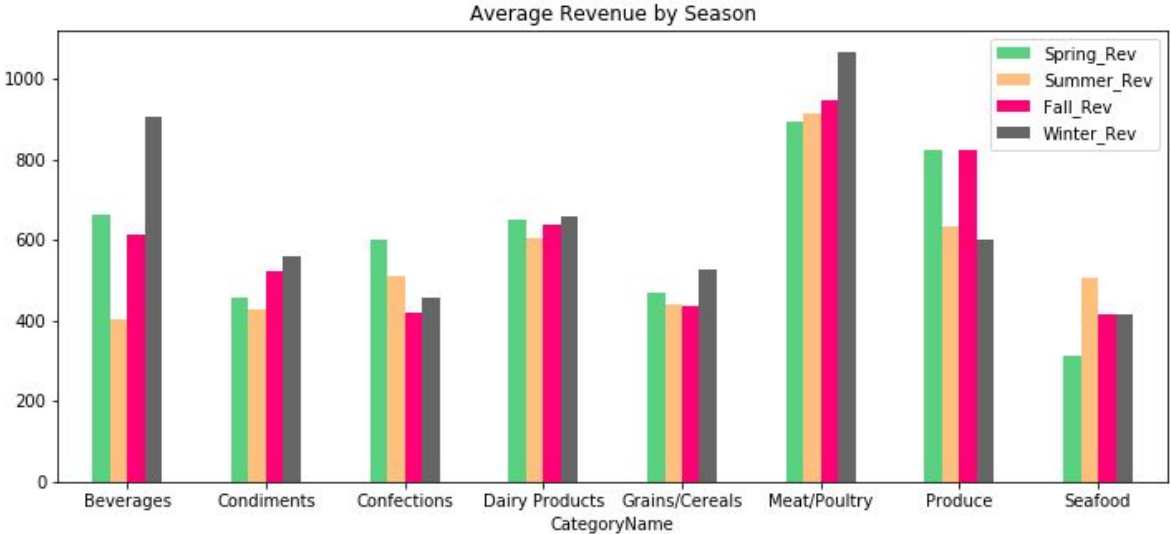


**Do some categories of product
sell more during certain
seasons? If so, which
categories?**

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Suggestions

Product Category	Highest Revenue	Lowest Revenue
Beverages	Winter	Summer
Condiments	Winter	Summer
Confections	Spring	Fall
Dairy Products	Steady Throughout	
Grains/Cereals	Fall	Throughout
Meat/Poultry	Throughout	Spring
Produce	Throughout	Winter
Seafood	Summer	Throughout





What more can be done?

With more time:

- Look further into each product and how they are contributing to Northwind's revenue.
- Look further into where the supplies are coming from and how they affect revenue (ie. seafood).

With more resources:

- Test out new seafood products and compare revenue of old seafood products with the new.
- Gather more data on
 - customer demographics
 - Supplier costs

Thank you!

Q&A
