Food Sales Predictions

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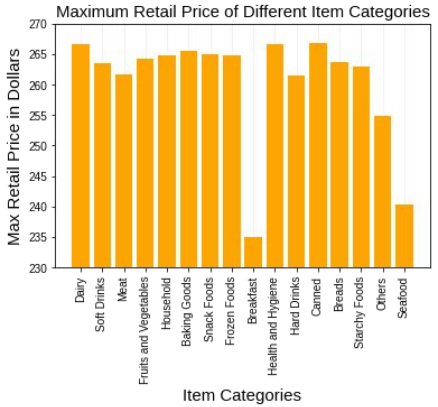
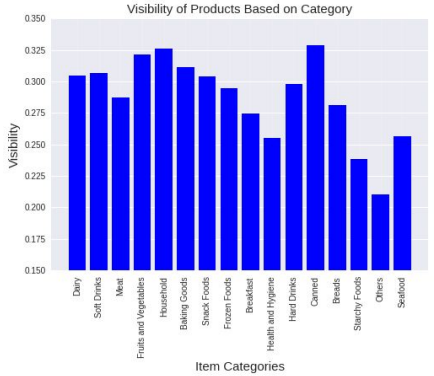
Project Goals & Overview

- Find potential ways to improve the overall sales of the grocery outlets using the data provided in the dataframe.
- Provide useful information from the data through visualization and predictive Models

Results: MRP & Visibility

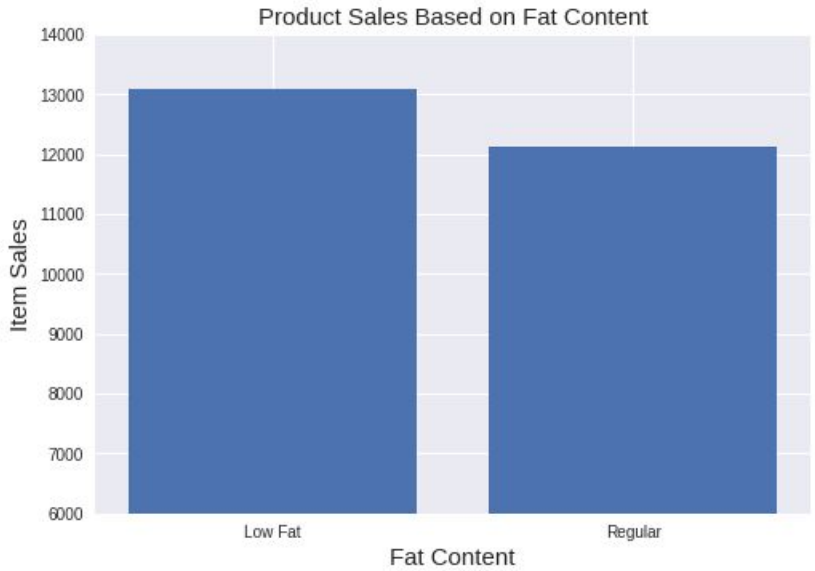
- Looked into the relationships between the Maximum Retail Price (MRP) and Categories.
- Looked for any Categories that had a significant difference in Visibility of their products.
- By looking at the two I hoped to determine if Categories with high MRP items were getting more Visibility.





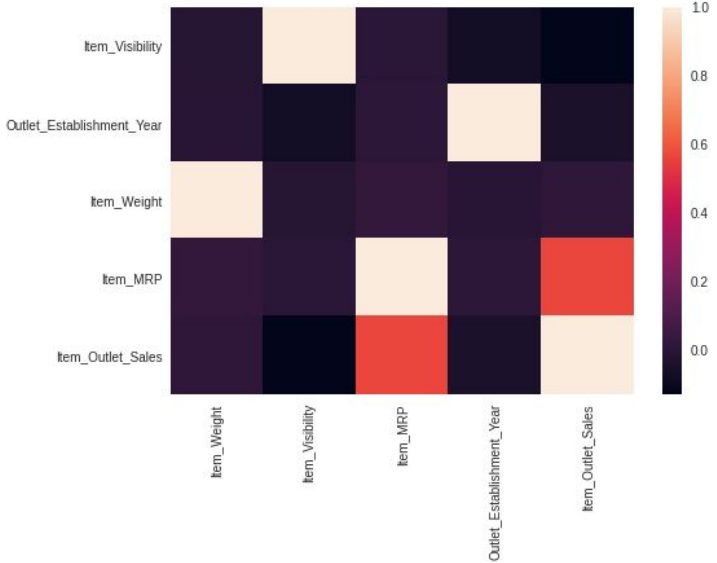
Results: Fat Content

- Found a difference in sales between low fat items and their regular counterparts.
- Items marked as Low Fat resulted in more sales than items with Regular fat content.



Results: Correlations

- I created a heatmap display to find potential correlations between variables.
- There was a correlation of 0.567574 between item MPR and the Outlet's Item Sales.
  - 0.5675 is considered a moderate correlation.



Results: Random Forest Regression

- Random Forest Regression Model:
  - After split testing, the model received a R^2 score of 0.5387 when paired with the set of testing data.
  - Interpreted: roughly 53% of the data fit the regression predicting the outlet sales.

Citations:

https://www.healthline.com/nutrition/10-health-benefits-of-apples