

Demand forecasting for a grocery store

Question/need: A grocery store runs out of some products while other products last longer and need disposal from the shelves. The purpose of this project is to forecast which products are in high demand and the restock amount needed.

The model will help the store to prevent getting out-of-stock

- prevent getting out-of-stock for products still in demand
- Have the right balance between demand and supply
- Reduce expenses from on inventory waste and inventory management
- Increase convenience and customer satisfaction

Solution Path:

- Find out which departments have the highest purchases
- Find out which Isles have the highest purchase in each department that we found out to have highest purchase
- Design a model that predicts when each the store will run out of each product in each isle

Data Description:“The Instacart Online Grocery Shopping Dataset 2017” will be used for this project. The data has a shopping history of more than 3 million orders done by more than 200,000 anonymous online shoppers. The data also have the week and hour of day the order was placed, and a relative measure of time between orders.

Tools:

- Spreadsheets
- Tableau

MVP Goal:

- Select a sample group from the data
- clean the data
- Find out departments and the isles with the highest purchases