SUMMARY

Predict daily number of online orders for Instacart

Question/need: Instacart has almost 10,000 in-store shopper employees who pack groceries in stores. The other half a million full service shoppers are independent contractors that shop and deliver or deliver only; flexibly at any time they want and they get paid per batch. Instacart has reduced the in-store workforce in some areas of the US because they found it to be more costly; and people are losing their jobs.

So this project is to analyze the daily and hourly instacart orders to find out the amount of highest daily and hourly orders and finally predict the number of future orders ; which will help instacart to estimate the amount of full-service-shoppers they need to higher. This will also help them to estimate profit and to find a balance between their in-store shoppers and full-service-shoppers for areas depending on their predicted daily demands.

This also will help them to include a notification for their shoppers about a weekly demand forecast so that shoppers will have a more stable schedule rather than randomly wait for orders; which will increase productivity.

Solution Path:

- Predict daily and hourly number of orders using Prophet.

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 day and hour of day that 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 which days of the week has the higher orders