SUMMARY

ABSTRACT

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 shoppers they need. 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.

DESIGN

- Data selection and cleaning
- Exploratory data analysis
- Time series model building (future work)

DATA

"The Instacart Online Grocery Shopping Dataset 2017" iS used for this project. The data_set used for this project is taken from evaluation_set data and the last almost 98,570 rows are used.

Data description

- order_id: order identifier
- product_id: product identifier
- add_to_cart_order: order in which each product was added to cart
- reordered: 1 if this product has been ordered by this user in the past, 0 otherwise
- user_id: customer identifier
- eval_set: which evaluation set this order belongs in
- order_number: the order sequence number for this user (1=first, n=nth)
- order_dow: the day of the week on which the order was placed
- order_hour_of_day: the hour of the day on which the order was placed
- days_since_prior_order: days since the last order, capped at 30, NA if order_number=1
- product_name: name of the product
- aisle_id: aisle identifier
- department_id: department identifier
- aisle: the name of the aisle
- department: the name of the department

METHODOLOGY

- Remove duplicates and n/a values
- Produce columns**:** Order_day, order_hour, days_since last order : using Vlookup

  Number_of_orders : using CountIF function

- Produce visuals to see relationship between order number(Target) with possible features order_days, order_hour,
- Produce drop down validation table for the number of orders in each department
- Produce bar chart and line charts using Tableau and made a dashboard for the plots related with target(orders)

TOOLS

EXCEL - Data organization and analysis

TABLEAU - Data visualization

COMMUNICATION

Tableau dashboard :

https://public.tableau.com/app/profile/yordanos.woldebirhan/viz/Instacart_data_analysis/Dashboard1