**Project Title**: **Groceries product sale forecasting**

**Problem statement**: We need to understand customer’s groceries order history. What products they are buying, when they are buying and how frequently they are buying. Using this data we will find pattern and predict which product they buy on their next order.

**Client:** The client for this project is online groceries shopping application owner like Instacart. They provide web application and mobile phone apps to their customers to shop for the groceries product from various retailers. They provide same day delivery by their personal shoppers.

This project will help them give insight on their customer’s orders. They will come to know what category of customer buying which product. What time of the day the maximum shopping happens. What day of the week more orders comes from the customer? The project will predict which previously purchased products will be in a user’s next order. It will help decide the product inventory in different retail store. It will also help them target customers with the product options to buy.

**Data:** The dataset for this competition is a relational set of files describing customers' orders over time. The goal of the competition is to predict which products will be in a user's next order. The dataset is anonymized and contains a sample of over 3 million grocery orders from more than 200,000 Instacart users. For each user, we provide between 4 and 100 of their orders, with the sequence of products purchased in each order. We also provide the week and hour of day the order was placed, and a relative measure of time between orders

I will acquire data from web application such as Kaggle. I will download the data in the CSV format from kaggle.

**Problem solving approach:** I will Python and Machine learning algorithms on the data. I will understand, wrangle and clean the data as much as possible. I will use matplotlib and seaborn modules to create statistical chart to show order history. I will use variables like day of the week & time of the day to find the relationship between orders. I will jupyter notebook for Python coding. I will take regular help from my Mentor.

**Deliverables**: Python code, PPT showing different charts