**Food Demand Forecasting**

**Predict the number of orders for upcoming 10 weeks**

A meal delivery company operates in multiple cities. They have various fulfillment centers in these cities for dispatching meal orders to their customers. The client wants you to help these centers with demand forecasting for upcoming weeks so that these centers will plan the stock of raw materials accordingly.

Data:

The data are sourced from <https://www.kaggle.com/datasets/kannanaikkal/food-demand-forecasting> and consists of four datasets: fulfilment\_center\_info.cvs, meal\_info.cvs, train.csv, and test.csv.

* fulfilment\_center\_info.csv contains a total of 5 features for 77 centers
* meal\_info.csv contains a total of 3 features for 52 meals
* train.csv is composed of a total of 9 features collected from 456k orders
* test.csv is composed of a total of 8 features collected from 32k orders
* train.csv and test.csv are identical except there’s no order number column in test.csv

Questions:

How promotions can affect the number of orders?

How fulfilment centers are connected?

**Capstone Two- Project Ideas**

**#1-Predict the fastest and normal shipping durations and identify the risk of the late delivery**

Goals:

* Determine the maximum range of shipping time, by predicting the fastest and normal duration for shipping of goods.
* Classify orders with high probability of late delivery.

Dataset:

* <https://data.mendeley.com/datasets/8gx2fvg2k6/5>
* Kaggle link: <https://www.kaggle.com/shashwatwork/dataco-smart-supply-chain-for-big-data-analysis>

This dataset used by the company DataCo Global and contains of 180,520 customers and 53 features.

**#2-Food Demand Forecasting**

Predict the number of orders for upcoming 10 weeks for a meal delivery company operating in multiple cities. The company has various fulfillment centers across these cities to dispatch meal orders to customers. In anticipation of future demand, the company aims to forecast the upcoming weeks' orders, allowing these centers to plan their raw material stocks accordingly.

Goals:

* Estimate the total number of orders for each fulfilment center.
* Determine the number of meals for each fulfilment center for the upcoming 10 weeks.
* Classify high-demand orders for each center.

Dataset:

<https://www.kaggle.com/datasets/kannanaikkal/food-demand-forecasting>

Data consists of four datasets:

* fulfilment\_center\_info.csv contains a total of 5 features for 77 centers
* meal\_info.csv contains a total of 3 features for 52 meals
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**#3-sales and demand forecasting**

Estimate the unit sales of Walmart retail goods.

Goals:

* Predict item sales at stores in various locations for the next 28 days.

Dataset:

<https://www.kaggle.com/competitions/m5-forecasting-accuracy>

* calendar.csv - Contains information about the dates on which the products are sold.
* sales\_train\_validation.csv - Contains the historical daily unit sales data per product and store
* sell\_prices.csv - Contains information about the price of the products sold per store and date.
* sales\_train\_evaluation.csv - Includes sales