

# **DAB501 - Project #1 – Problem Statement**

## **Team Introduction**

Group **#11**

Section **#04**

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## **Background**

Supermarkets play a crucial role in our daily lives by providing us with the necessary groceries and household items. The retail industry is constantly evolving with changing consumer demands, technological advancements, and economic fluctuations. Therefore, it is imperative for supermarkets to optimize their operations to stay competitive, improve customer satisfaction, and maximize profits.

## **Problem statement**

1. To analyze the supermarket's sales and order management data to identify customers buying patterns and trends.
2. To analyze supermarket's 1) Most popular meal 2) Sales trends 4) Order management. It can help identify which products are in high demand, which products are slow-moving, which products are not selling at all and delivery time to serve the orders. This analysis can be used to optimize the supermarket's order management, pricing strategy, and marketing campaigns.

## **Project Proposal**

We will create a descriptive model to identify trends and patterns in customer behavior and product sales. This will help the store better understand their customers and optimize their orders, pricing, and marketing strategies to improve sales and customer satisfaction.

## **Analysis Questions**

1. What are the top-selling products and how does their sales volume and revenue compare?
2. What are the busiest days and times for each store, and how can the supermarket chain optimize their delivery time to meet demand?
3. Are there any product categories that are consistently underperforming, and how can the supermarket chain address this issue?
4. Can the supermarket chain identify any patterns in customer behavior, such as recurring purchases or differences in purchasing behavior across different customer segments?
5. How effective are the store's pricing strategies, and are there opportunities to improve margins or offer more competitive prices?

## **Dataset Description**

This data set provides an in-depth look into the ordering, invoicing and sales processes at a supermarket. With information ranging from customers' meal choices to the value of their orders and whether they were converted into sales, this dataset opens up endless possibilities to uncover consumer behavior trends and engagement within the business. From understanding who is exchanging with the company and when, to seeing what types of meals are most popular with consumers, this rich collection of data will allow us to gain priceless insights into consumer actions and habits that can inform strategic decisions.