## Project Understanding

The project is to increase the sales of a retail store by 5% and increase customer loyalty.

List of Possible Problems:

1. Lack of adequate marketing
2. Non-compliance of Government policies
3. Dis-satisfying experience by customers
4. Competition
5. Macro-economics
6. Lack of availability of demanded goods
7. Failure of management at various outlets or stores
8. Ill-planned Scaling
9. Environmental Factors

Majorly, the above 10 points happen to be some of the major factors to lesser sales and lower levels of customer satisfaction.

In the next portion, we are trying to enlist the possible factors which may affect the sales in detail.

1. Lack of adequate Marketing:
   1. Customers who can and will buy may not be aware of the company’s services whereas customers not likely to buy are being advertised to.
   2. Marketing of required/in-trend goods and services may not be performed
2. Non-compliance of government policies
3. Poor Customer Experience:
   1. Behaviour of the staff may not be as per customer expectations
   2. Pricing and Discounting disputes between customers and the store
4. Competition:
   1. Better quality of products available elsewhere
   2. Better Prices available elsewhere
   3. More prominent advertisement regime
5. Macro-Economics
   1. Consumer Spending Power
   2. Inflation
   3. Interest Rates
6. Lack of Availability of Demanded Goods:
   1. Inaccuracies in demand forecasting may happen leading to Demand and Supply issues
   2. Inventory Shortage
7. Failure of Management at various outlets:
   1. Ill training of staff
   2. Lack of Synchronization of practices at each retail store.
   3. Bad handling of Customer Orders (Delayed Deliveries, Damaged product)
8. Ill-planned Scaling
9. Environmental Factors:
   1. Delays due to weather conditions like slower transportation etc.
   2. Natural Disasters may also hamper products, their production or/and their shipment process as well.

## Project Plan

1. Determination of Objectives and Scope:
   1. We have majorly 3 aspects which are most likely to affect the sales and alter customer loyalty:
      1. Optimization of certain processes
      2. Understanding Customer Behaviours and Preferences
      3. Attempting at more accurate future predictions to understand future demands
2. Data Cleaning and Preparation: This is a must to solve most of the possible discrepancies like Missing Data, Outlier Detection, etc.
3. Exploratory Data Analysis: Here, we shall be looking for certain patterns and correlations between certain columns in the data. This involves understanding the data schema and taking care of the relations between various tables.

From the provided set of tables and datasets, the following correlations can be explored to understand and investigate for the low sales and customer loyalty.

* 1. Relation between Procured Date, Order Date, and Delivery Date to understand delay
  2. Understanding the Sales Channels in relation with the Prices for which the product was sold to find the maximum profit yielding channel
  3. Checking for products yielding maximum profits after application of discounts on products contributing to most of the profits
  4. Region and Population correlation with the average household income to understand average household spending range

## Solution Approach

Major aspects that were taken into consideration which may improve the performance of the Company and ultimately result in achievement of the objectives determined.

* **Day Demographics Analysis**
  + **Peak Business Timings:** Identifying the time periods when the maximum number of sales/orders are received across the U.S. by the retail store.
  + **Store Availability and Timings:** Evaluating the opening and closing times of various stores in different regions. Since each region may have distinct peak business hours, store timings can be personalized to increase efficiency and optimize staff management in offline stores.
  + **Festival-Based Discounts:** Offering special discounts and promotions during festivals rather than providing random discounts throughout the year. This strategy can help attract more customers and increase sales during peak shopping seasons.
* **Product Demographics Analysis**
  + **Discount and Purchase Ratio:** Monitoring the discount-to-purchase ratio in various regions, either through a centralized system or manual tracking. Adjusting discount strategies based on market conditions and competitor pricing is essential to ensure profitability.
  + **Product Stock Availability:** Ensuring product availability at the nearest store to the customer to minimize delivery times and enhance customer satisfaction. This strategy can positively impact customer loyalty and reviews, as timely delivery is a key factor in customer experience.
  + **Regional Product Preferences:** Conducting a detailed analysis of the types of products ordered by customers in different regions. This allows the company to offer region-specific discounts and product bundles, based on purchase patterns of the population which can increase customer loyalty and drive profitability.
* **Location Demographics Analysis**
  + **Channel Profit Tracking**: Identify the most profitable sales channels. The online channel is expected to generate the majority of orders, although this may vary and should be regularly assessed.
  + **Order and Delivery Irregularities**: There are noticeable inconsistencies between the order placement, shipping initiation, and delivery dates. Exploratory Data Analysis (EDA) indicates that most products are delivered after 10 days, with only about 13% of orders delivered on time within this period. This delay can lead to negative customer reviews and requires improvement.