Data pre-processing

1. Remove duplicates:

Duplicates can distort analysis by overweighting certain data points. Removing duplicates ensures that each observation in the dataset is unique, avoiding redundancy and improving data quality

1. Convert date\_of\_order to Datetime Format

Converting to datetime allo

**Recommendation for Elasticity Analysis**

Since your project is related to **elasticity**, it primarily involves analyzing the relationship between **discounts** and **units sold**. Elasticity measures how sensitive sales are to changes in price or discount. Therefore:

* The focus should be on **predicting units sold**, taking into account various features like discount levels, time of year, department, and so on.

By predicting units sold, you can analyze:

1. **Elasticity**: Calculate how changes in discounts impact units sold.
2. **Revenue Optimization**: Understand the trade-off between increasing sales and applying higher discounts.
3. **Seasonality Trends**: Investigate how sales behavior changes over time or during specific periods (e.g., holidays or promotions).

**Proposed Modelling Approach**

* **Target Variable**: Units Sold (orders in your dataset).
* **Features**: Include discounts as a key feature alongside other variables (e.g., seasonality, department, lagged orders).
* **Analysis**: Use the model's predictions to calculate elasticity and optimize discount strategies.

By doing this, you align the modeling step with the broader goal of elasticity analysis and revenue optimization.