Avocado Prices

1. What is in your data?

The Avocado Prices dataset provides historical data on avocado prices and sales volumes across various U.S. markets. The dataset spans from 2015 to 2018 and includes the following key variables:

- **Date**: The date of the observation.
- **AveragePrice**: The average price of a single avocado.
- **Type**: The type of avocado (either conventional or organic).
- **Region**: The geographical area where the observation was recorded.
- **Total Volume**: The total number of avocados sold.
- **4046**: Total number of avocados with PLU 4046 sold.
- 4225: Total number of avocados with PLU 4225 sold.
- **4770**: Total number of avocados with PLU 4770 sold.
- 2. How will these data be useful for studying the phenomenon you're interested in?

This dataset is particularly valuable for analyzing trends and patterns in avocado pricing and sales. Potential analyses include:

- **Price Trends Over Time**: Investigating how avocado prices have fluctuated between 2015 and 2018.
- **Regional Price Differences**: Comparing average prices across different regions to identify areas with higher or lower prices.
- **Conventional vs. Organic**: Analyzing price and sales volume differences between conventional and organic avocados.
- Seasonal Patterns: Identifying seasonal effects on avocado prices and sales volumes.
- 3. What are the challenges you've resolved or expect to face in using them?
- Data Completeness: Ensuring that there are no missing values, especially in critical columns like Date, AveragePrice, and Region.
- **Date Formatting**: Confirming that dates are in a consistent format to facilitate time-series analysis.
- Categorical Data Handling: Properly encoding categorical variables such as Type and Region for analysis.
- Outliers: Identifying and addressing any anomalies in price or volume that could skew the analysis.