IQR 1.5 Rule

The 1.5 IQR rule is a standard statistical method to find potential outliers in a dataset, defining them as any values falling below Q1 - 1.5 * IQR or above Q3 + 1.5 * IQR, where Q1 is the first quartile, Q3 is the third quartile, and IQR (Interquartile Range) is Q3 - Q1.

It is a robust, non-parametric approach used with box plots to flag data points significantly far from the central 50% of the data, offering a simple way to spot unusual observations for further investigation.

How to Apply the 1.5 IQR Rule:

1. **Order Your Data**: Arrange your dataset from smallest to largest.
2. **Find Quartiles**:
    - **Q1 (First Quartile)**: The median of the lower half of the data (25th percentile).
    - **Q2 (Median)**: The middle value of the entire dataset.
    - **Q3 (Third Quartile)**: The median of the upper half of the data (75th percentile).
3. **Calculate IQR**: Subtract Q1 from Q3 (IQR = Q3 - Q1).
4. **Determine Fences**:
    - **Lower Fence**: Q1 - (1.5 * IQR).
    - **Upper Fence**: Q3 + (1.5 * IQR).
5. **Identify Outliers**: Any data point less than the Lower Fence or greater than the Upper Fence is considered a potential outlier.