**Assignment 1**

Objective: Implement a function to analyze the data distribution in Data1.txt more comprehensively. This function should not only calculate basic statistics but also identify different types of anomalies in the data and suggest potential transformations for normalization.

Requirements:

* Function Input: A vector of numbers from Data1.txt.
* Function Output:
  + Basic Statistical Measures: Mean, Median, Standard Deviation, Variance.
  + Quartile Values: 1st quartile (q1), 2nd quartile (q2), 3rd quartile (q3), Interquartile Range (IQR).
  + Anomaly Detection:
    - Outliers and Extreme Outliers: Identify these using IQR method.
    - Skewness and Kurtosis: Calculate these values to understand the data distribution.
  + Suggested Data Transformations:
    - Recommend transformations (like logarithmic, square root, etc.) to normalize the data based on skewness and kurtosis values.
* Analysis:
  + Analyze the skewness and kurtosis values to determine the type of distribution (normal, skewed, heavy-tailed, etc.).
  + Suggest reasons for the presence of outliers or anomalies based on industry knowledge (if applicable).

Deliverables:

* Python code implementing the function.
* A report on the calculated values (basic statistics, quartiles, skewness, kurtosis) and identified outliers/extreme outliers.
* Analysis of data distribution characteristics and recommended data transformations.

Note: Do not use built in functions