Outlier Detection

Task: Detecting Outliers

Explanation: In this module, you will practice various outlier detection techniques to identify abnormal or unusual data points. Again, you will work with the dataset of your choice, and produce the report of your analysis.

Associated Course (if you haven't taken it or mastered the skills):

- Association Rules Analaysis

Instructions:

1. Z-Score: Implement the Z-Score method to identify outliers based on standard deviations from the mean.
2. IQR (Interquartile Range): Use the IQR method to detect outliers based on data quartiles.
3. One-Class SVM: Explore the One-Class SVM algorithm to distinguish outliers from normal data points.
4. Isolation Forest: Understand the Isolation Forest algorithm for efficient outlier detection.
5. DBSCAN: Apply DBSCAN clustering for identifying outliers based on data density.
6. LOF (Local Outlier Factor): Implement the LOF algorithm to detect outliers based on their local density.
7. Contextual Outliers: Learn how to identify contextual outliers based on specific domains or applications.