

Problem Statement 3 - Analyzing Prescription Patterns for "Target Drug"

In problem statement 3, the aim was to analyze the patterns in which the "Target Drug" is administered or prescribed to patients using clustering techniques. The steps followed for this analysis were as follows:

1.Data Preprocessing:

- Filtered the data to include patients who have taken the "Target Drug."

2.Feature Engineering:

- Created a feature matrix representing the occurrence of "Target Drug" prescriptions in each month for each patient.

3.Clustering:

- Applied K-means clustering to identify dominant prescription patterns.
- Determined the optimal number of clusters using the silhouette score and elbow method.

4.Visualization:

- Visualized prescription patterns for each cluster with time on the X-axis and prescriptions on the Y-axis.