Clustering Results Report

1. **Number of Clusters Formed**:

   o   A total of 4 clusters were identified in the dataset.

2. **Cluster Distribution**:

   o   **Cluster 0**: 37 data points

   o   **Cluster 1**: 44 data points

   o   **Cluster 2**: 58 data points

   o   **Cluster 3**: 60 data points

3. **Clustering Metrics**:

   o   **Silhouette Score**: 0.4153
   This indicates a moderate level of separation and cohesion among the clusters. Values closer to 1 represent well-separated clusters.

   o   **Davies-Bouldin Index (DBI)**: 0.7946
   A lower DBI value suggests better clustering quality, with this value indicating relatively compact and well-separated clusters.

4. **Visualization**:
   The clustering results were visualized using PCA components to project the data into a 2D space, as shown in the scatter plot. Each color in the plot represents a distinct cluster, reflecting the separability of the clusters.