Task 3

1.) **The Number of clusters obtained were** - 8 using the **K-Means** algorithm.

2.) **DB Index Value** came out to be lowest at 8 clusters that is 0.63 and hence number of cluster used are 8

Other Clustering Metrics Used -

3.) **Cluster Visualization (via PCA):**
   Purpose: Visualizes clusters in a 2D space after reducing dimensions with PCA.
   Relevance: While not a numerical metric, it provides qualitative insights into cluster structure and separability