

Homework 3 Clustering Models

1) Process:

- a) Load the dataset
- b) Import the required libraries

2) Build Models:

- a) K-Means Clustering Model:
 - i) Use the elbow method to draw a plot, and find the optimal number of clusters.
 - ii) Train the K-Means model with the optimized K.
- b) Hierarchical Clustering Model:
 - i) Use the dendrogram method to draw a plot, and find the optimal number of clusters.
 - ii) Train the Hierarchical Model with optimized n_clusters.

3) Evaluation:

- a) Visualize the result of both of those 2 models, mark different classes in different colors, and scatter the cluster centers of the K-Means model.
- b) Write a brief description of your results.