

The code provided was run by PyCharm.

The results of each run may not be the same since the algorithms used a random method to pick initial centroids.

The code consists of:

1. prepare dataset (load and aggregate dataset)
2. define features of the dataset
3. score function (Calculate the B-cubed scores of k-means and k-medians with L2 normalization option. For question 1 and 2)
4. plot function (Plot the B-cubed scores and k of k-means and k-medians.)
5. Question 3: K-means without L2 normalization
6. Question 4: K-means with L2 normalization
7. Question 5: K-medians without L2 normalization
8. Question 6: K-medians with L2 normalization

Note that:

1. All explanations of the code are in the given python file in terms of doc strings and comments.

2. To properly finish running the code, in PyCharm, users need to close all plotting figures before running the code again.