**Language**: java

**How to compile:**

javac KMeanAlgo.java

**How to RUN:**

java KMeanAlgo <numberOfClusters> <input-file-name> <output-file-name>

**Results for 5 runs:**

1. K = 5

Sum of Squared Error = 1.3168147123847171

1. K = 8

Sum of Squared Error = 1.0546560305124209

1. K = 3

Sum of Squared Error = 2.317520293932993

1. K = 1

Sum of Squared Error = 6.2152078399999855

1. K = 9

Sum of Squared Error = 0.8356610154273831

Initial centroids are chosen randomly. So, for the same value of k, different runs give different values.