My algorithm gives reasonable results for k:s up to about 5-6, then it starts to give different solutions due to local minimums from the randomly chosen starting centroids, and the datasets natural appearance. It’s easy to distinguish 2 separated clusters, which is why an appropriate k-value would be the same, at least not higher than 3. For k = 2 the algorithm chooses the most left point in the right region to belong to the left cluster, it’s correct according to the k-means algorithm due to the fact that the Euclidian distance in fact is shorter to the left centroid, although it clearly should belong to the right cluster (see picture below).

