→ Steps in K-means clustering

1) Decide number of cluster.

2) Initialize centroid.

3) Assign cluster. ⌐

4) Move centroids ⌐

5) Finish.

1) At first we will decide the number of cluster by elbow method.

2) We randomly select n point and say those are our centroid.

3) We will assign each remaining point a cluster. By calculating

the distance of each cluster from the each point and assign the cluster that has minimum distance.

We will find the distance by eucledian distance formula.

4) Now, we will update the centroid by finding the mean.

After getting the new centroid we will again calculate the distances and assign clusters to the each point.

we will repeat the step 3 and 4 untill the centroid doesn't change.

5) Then we will get our final centroid and each point will be assigned to a cluster.

→ Now let's see how we can decide how many cluster is suitable for those points.

WCSS → within cluster

sum of squared inertia

distance

→ WCSS is: on each

cluster calculating the

distances between cluster and each

points.