DBSCAN

DBCAN is a density-based algorithm. Density is number of points within a specified radius (Eps)

Core Point:

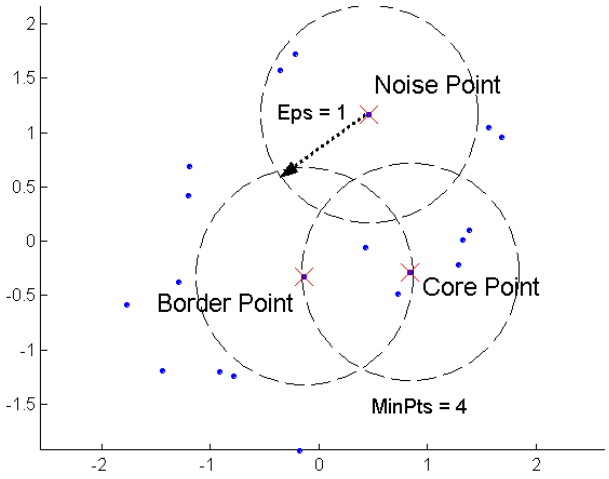
A point is a core point if it has more than a specified number of points (Min Pts) within Eps. These are points that are at the interior of a cluster.

Border Point:

A border point has fewer than Min Pts within Eps, but is in the neighbourhood of a core point

Noise Point:

A noise point is any point that is not a core point or a border point.

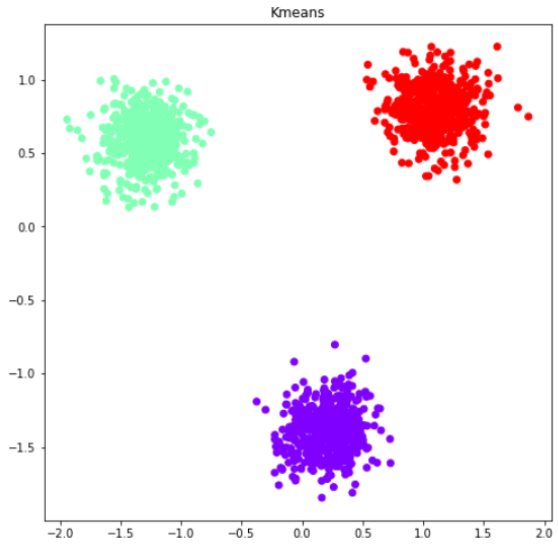


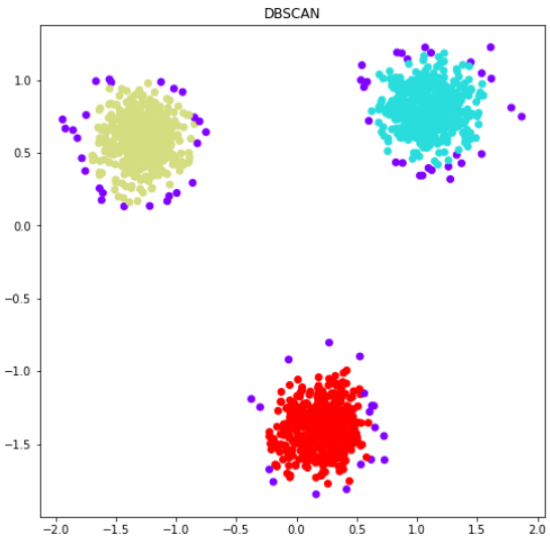
1) Cluster Blobs Data Set

By applying Blobs data set in DBSCAN and put the value of Eps=0.1 and min. sample=10. We get 3 clusters. Putting the same of cluster in K-Means we analysed the Silhouette score.

Silhouette Score of DBSCAN = 0.7657889435580151

Silhouette Score of K-Means = 0.8653757549507829



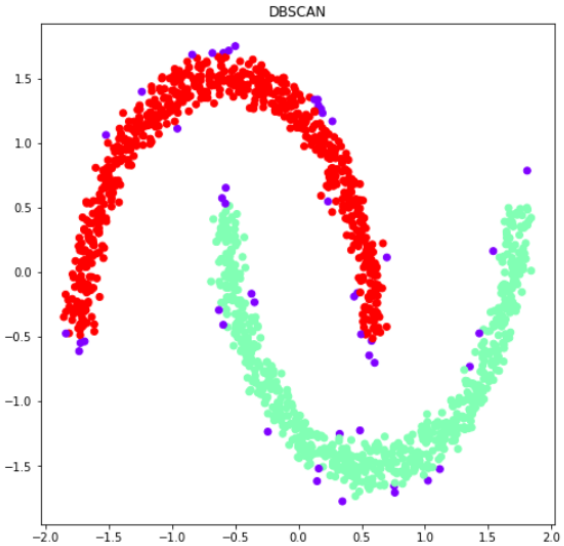


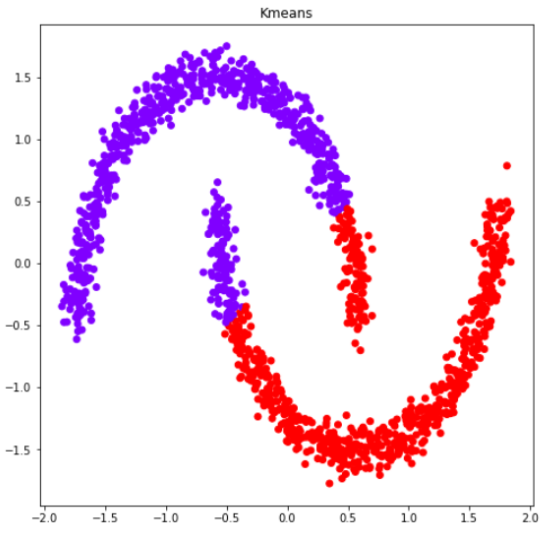
2) Cluster Moons Data Set

By applying Moons data set in DBSCAN and put the value of Eps=0.09 and min. sample=10. We get 2 clusters. Putting the same of cluster in K-Means we analysed the Silhouette score.

Silhouette Score of DBSCAN = 0.24698442462127096

Silhouette Score of K-Means = 0.49826893665756217





3) Cluster Circles Data Set

By applying Circles data set in DBSCAN and put the value of Eps=0.2 and min. sample=19. We get 2 clusters. Putting the same of cluster in K-Means we analysed the Silhouette score.

Silhouette Score of DBSCAN = 0.20423711252367593

Silhouette Score of K-Means = 0.2947227769744227