

MACHINE LEARNING - 2

1. *D - 2 & 3* - Movie recommendation systems are basically done to study previous profile recommendations and to help improve future recommendation
2. *D - 1, 2 & 4* - Since its a mix of classifying sentiments and studying continus changes in behaviour and what kind of reinforcement can be done to restore.
3. *A - True* - In clustering non dependant values are generated without any particular function and are usally producting natural clusters within the given data.
4. *A - Capping and flouring of variables* - Here Outliners removal is not recommended for data points less than the desired data points.
5. *B - 1* - Atleast One variable is required to perform Clustering analysis.
6. *B - No* - Clustering converses on Local minima which Might converse on Global minima and not always, since which it is advised to run the model multiple times before assuming the drawing information on clusters
7. *A - Yes* - In Clustering when the model is reached Local and Global minima there would not be any alterations in assignments of data points.
8. *D - All of the Above* - All of the options can be used as a possible termination condition.
9. *A - K means clustering algorithm* - As it uses Mean of Cluster data points to find the center.
10. *D - All of the Above* - Clustering can help improve the accuracy using all the techniques.

11. *D - All of the Above* - Changing the proximity functions and no. of data points will lead to different clustering results, hence different dendrograms.
12. The K - means clustering algorithm is sensitive to Outliers. The K - means clustering algorithm is sensitive to Outliers since Mean is sensitive to large values. On the other side the K - medoids uses a single point on the cluster. A medoid is centrally located. Since this we can understand that K - mean is sensitive to Outliers and K - medoids is best fit for conditions with Outliers and shows the Cluster center exactly.
13. (1) K - means is very easy to represent
(2) Easily adapts to new samples in the data
(3) Represents clusters in a better way especially elliptical clusters
(4) It gives best start to the positions of the Centroids.
14. K - means clustering is based on a non - deterministic algorithm. Since running the same algo on the data multiple times gives differentiated results. However K - mean algorithm using Hierarchical clustering gives us a deterministic initialization.