MACHINE LEARNING

13. What is the importance of clustering?

Ans:- Having clustering methods helps in restarting the local search procedure and remove the inefficiency. In addition, clustering helps to determine the internal structure of the data. This clustering analysis has been used for model analysis, vector region of attraction. Clustering helps in understanding the natural grouping in a data set. Their purpose is to make sense to partition the data into some group of logical groupings.

Clustering quality depends on the methods and the identification of hidden patterns.They play a wide role in applications like marketing economic research and weblogs to identify similarity measures, Image processing, and spatial research.They are used in outlier detection to detect credit card fraudulence.

Clustering is important in data analysis and data mining applications. It is the task of grouping a set of objects so that objects in the same group are more similar to each other than to those in other groups

Clustering in machine learning is an essential component and makes life so much easier in creating new machine learning methods. It mainly divides many unstructured data sets into clusters and, according to the common attributes present in them, it helps create more and more clusters.

Clustering technique is used in various applications such as market research and customer segmentation, biological data and medical imaging, search result clustering, recommendation engine, pattern recognition, social network analysis, image processing, etc.

14. How can I improve my clustering performance?

Ans:- A good clustering method will produce high quality clusters in which
- the intra-class (that is, intra intra-cluster) similarity is high.
-the inter-class similarity is low.
-The quality of a clustering result also depends on both the similarity measure used by the method and its implementation.
- The quality of a clustering method is also measured by its ability to discover some or all of the hidden patterns.
-The quality of a clustering result also depends on the definition and representation of cluster chosen.