Clustering-3

Assignment Questions

PW SKILLS

Q1. Explain the basic concept of clustering and give examples of applications where clustering is useful.

Q2. What is DBSCAN and how does it differ from other clustering algorithms such as k-means and hierarchical clustering?

Q3. How do you determine the optimal values for the epsilon and minimum points parameters in DBSCAN clustering?

Q4. How does DBSCAN clustering handle outliers in a dataset?

Q5. How does DBSCAN clustering differ from k-means clustering?

Q6. Can DBSCAN clustering be applied to datasets with high dimensional feature spaces? If so, what are some potential challenges?

Q7. How does DBSCAN clustering handle clusters with varying densities?

Q8. What are some common evaluation metrics used to assess the quality of DBSCAN clustering results?

Q9. Can DBSCAN clustering be used for semi-supervised learning tasks?

Q10. How does DBSCAN clustering handle datasets with noise or missing values?

Q11. Implement the DBSCAN algorithm using a python programming language, and apply it to a sample dataset. Discuss the clustering results and interpret the meaning of the obtained clusters.

Note: *Create your assignment in Jupyter notebook and upload it to GitHub & share that github repository link through your dashboard. Make sure the repository is public.*