**True or False: Clustering is a common task in unsupervised learning, where data points are grouped together based on similarity**

* True
* False

Ans : True

**Imagine you work for an e-commerce company. The company has a large database of customer transactions, and your task is to segment customers into different groups for targeted marketing. Which unsupervised learning technique would you use?**

1. For customer segmentation in e-commerce, you can use a dimensional reduction algorithms like PCA.
2. For customer segmentation in e-commerce, you can use clustering algorithms like K-means or hierarchical clustering.

Ans: 2

**You are a financial analyst at a bank and need to detect potentially fraudulent transactions in a credit card dataset. How could unsupervised learning be applied to identify unusual transaction patterns indicative of fraud?**

1. Unsupervised learning can NOT be applied to detect fraudulent transactions.
2. Unsupervised learning can be applied to detect fraudulent transactions by clustering normal and abnormal transaction patterns or using outlier detection methods to identify unusual transaction behavior.
3. Unsupervised learning can be applied to detect fraudulent transactions by training a supervised machine learning model on a labeled dataset of fraudulent and non-fraudulent transactions.

Ans: 3