**PRACTICAL NO 6**

**AIM :** Clustering for Information Retrieval

* Implement a clustering algorithm (e.g., K-means or hierarchical clustering).
* Apply the clustering algorithm to a set of documents and evaluate the clustering results.

**INPUT:**

from sklearn.feature\_extraction.text import TfidfVectorizer

from sklearn.cluster import KMeans

documents=["Cats are known for their agility and grace",

"Dogs are often called 'Man's best friend'.",

"Some digs are trained to assist people with disablities.",

"The sun rises in the east and set on the west.",

"Many cats enjoy climbing trees and chasing toys.",

]

vectorizer = TfidfVectorizer(stop\_words='english')

X=vectorizer.fit\_transform(documents)

kmeans = KMeans(n\_clusters=3, random\_state=0).fit(X)

print(kmeans.labels\_)

**OUTPUT:**

