**PRACTICAL NO 9**

**AIM:** Learning to Rank

* Implement a learning to rank algorithm (e.g., RankSVM or RankBoost).
* Train the ranking model using labelled data and evaluate its effectiveness.

**INPUT:**

import numpy as np

from sklearn.svm import SVC

from sklearn.model\_selection import train\_test\_split

from sklearn.metrics import ndcg\_score

# Example dataset

X = np.array([[3, 2, 1], [2, 1, 0], [0, 1, 2], [1, 2, 0], [2, 1, 3], [1, 0, 2]])

y = np.array([1, 0, 0, 1, 0, 1])

# Split data

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)

# Train RankSVM model

model = SVC(kernel='linear', C=1.0)

model.fit(X\_train, y\_train)

# Evaluate model

ndcg = ndcg\_score([y\_test], [model.predict(X\_test)])

print(f"NDCG Score: {ndcg:.4f}")

**OUTPUT:**

