

Cosine similarity is a measure of similarity between two non-zero vectors of an inner product space that measures the cosine of the angle between them. In the context of the movie recommendation system, it is used to find the similarity between two movies based on their feature vectors.

In this system, each movie is represented by a feature vector that contains information about the movie such as its genres, cast, director, keywords, tagline, etc. The feature vectors are then transformed into a matrix, where each row represents a movie, and each column represents a feature.

The cosine similarity between two movies is calculated as the cosine of the angle between their feature vectors. A higher cosine similarity score indicates a higher degree of similarity between the movies, while a lower score indicates less similarity.

The cosine similarity score is used to identify the top similar movies to a given movie, based on their feature vectors. This allows the recommendation system to provide personalized recommendations to users based on their preferences.