MOVIE RECOMMENDATION

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import numpy as np
import pandas as pd
import difflib
from sklearn.feature_extraction.text import TfidfVectorizer
from sklearn.metrics.pairwise import cosine_similarity

# loading the data from the csv file to a pandas dataframe

movies_data = pd.read_csv('/content/movies.csv')

# selecting the relevant features for recommendation

selected_features = ['genres','keywords','tagline','cast','director']

# replacing the null valuess with null string

for feature in selected_features:
  movies_data[feature] = movies_data[feature].fillna('')

# combining all the 5 selected features

combined_features = movies_data['genres']+' '+movies_data['keywords']+'
'+movies_data['tagline']+' '+movies_data['cast']+' '+movies_data['director']

# converting the text data to feature vectors

vectorizer = TfidfVectorizer()

feature_vectors = vectorizer.fit_transform(combined_features)

# getting the similarity scores using cosine similarity

similarity = cosine_similarity(feature_vectors)

# getting the movie name from the user

movie_name = input(' Enter your favourite movie name : ')

# creating a list with all the movie names given in the dataset

list_of_all_titles = movies_data['title'].tolist()

find_close_match = difflib.get_close_matches(movie_name, list_of_all_titles)

close_match = find_close_match[0]
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index_of_the_movie = movies_data[movies_data.title == close_match]['index'].values[0]

similarity_score = list(enumerate(similarity[index_of_the_movie]))

sorted_similar_movies = sorted(similarity_score, key = lambda x:x[1], reverse = True)

print('Movies suggested for you : \n')

i = 1

for movie in sorted_similar_movies:
  index = movie[0]
  title_from_index = movies_data[movies_data.index==index]['title'].values[0]
  if (i<15):
    print(i, '.',title_from_index)
    i+=1
```

OUTPUT:

```
Enter your favourite movie name : batman
Movies suggested for you :

1 . Batman
2 . Batman Returns
3 . Batman & Robin
4 . The Dark Knight Rises
5 . Batman Begins
6 . The Dark Knight
7 . A History of Violence
8 . Superman
9 . Beetlejuice
10 . Bedazzled
11 . Mars Attacks!
12 . The Sentinel
13 . Planet of the Apes
14 . Man of Steel
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