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import pandas as pd
from sklearn.metrics.pairwise import cosine_similarity
from sklearn.model_selection import train_test_split
from sklearn.metrics import mean_squared_error
from math import sqrt

ratings=pd.read_csv('C:\ratings.csv')
movies=pd.read_csv("C:\movies_metadata.csv")

df = pd.merge(ratings, movies, left_on='movieId', right_on='id')
train_data, test_data = train_test_split(df, test_size=0.25)
ratings_train = train_data.pivot_table(index=['userId'], columns=['movieId'], values='rating')
ratings_test = test_data.pivot_table(index=['userId'], columns=['movieId'], values='rating')
ratings_train = ratings_train.fillna(0)
ratings_test = ratings_test.fillna(0)
user_similarity = cosine_similarity(ratings_train)
user_prediction = ratings_train.dot(user_similarity) / (user_similarity.sum(axis=1))
user_prediction_flatten = user_prediction.values.flatten()
ratings_test_flatten = ratings_test.values.flatten()
user_prediction_flatten = user_prediction_flatten[~np.isnan(ratings_test_flatten)]
ratings_test_flatten = ratings_test_flatten[~np.isnan(ratings_test_flatten)]
rmse = sqrt(mean_squared_error(user_prediction_flatten, ratings_test_flatten))

print(f"RMSE: {rmse}")

```