Project Description

The aim of Project 2 is to create a Movie Recommendation System. You can find the code in the 'Movie Recommendation System – api.py' file. The provided code is a basic movie recommendation system that uses content-based filtering and cosine similarity to suggest movies to a user based on their preference for a particular movie. The code starts by reading a dataset from the "Dataset.csv" file using Pandas and fills NA values. This dataset contains information about movies such as titles, keywords, cast, genres, and directors. The CountVectorizer from scikit-learn is used to convert the text data into a numerical format suitable for machine learning. It transforms the text data into a matrix of token counts. The code calculates the cosine similarity between movies based on their combined features. Cosine similarity measures the cosine of the angle between two non-zero vectors and is often used in recommendation systems to find similar items. For recommendation the code identifies movies like the user's selected movie based on cosine similarity scores. It finds movies with the highest similarity scores to the chosen movie. The list of similar movies is sorted in descending order of similarity scores. The script prints the top 10 recommended movies to the user based on similarity scores. It iterates through the sorted list of similar movies and prints their titles. Please note, for production-level recommendation systems, more sophisticated techniques like collaborative filtering, matrix factorization, and user-item interaction data are often used to provide more accurate and personalized recommendations, but I will go with this method for now to focus more on learning API methods, Flask, and Postman.

Project Instructions

To test the project results please follow the steps below:

1. Run the *Movie Recommendation System – api.py* file in the terminal
2. Open new GET request in Postman with URL *http://127.0.0.1:5000/recommend*
3. If everything is done correctly, you will see message in body part, follow the message
4. Change from GET to POST, input the name of the movie, for example, The Wolfman, War, Vampires, etc.
5. See some recommendations in the body part.