Movie Recommendation System

This movie recommendation system can be used to recommend ten movies to a user who inputs a movie they like. It uses data from the University of Minnesota to find correlations between the user's movie and other movies in the dataset. Once it has determined high-correlating movies, it will print them out nicely for the user to scroll through. It also includes the year the movie was released in case there are duplicate movie titles.

Citation

Please cite the dataset authors if you use these data or the recommendation system. They request that the citation looks like this:
F. Maxwell Harper and Joseph A. Konstan. 2015. The MovieLens Datasets: History and Context. ACM Transactions on Interactive Intelligent Systems (TiiS) 5, 4: 19:1–19:19. https://doi.org/10.1145/2827872

Data Key

The recommender uses two CSV files to determine its recommendations based on the user's input.

movies.csv:

- movieId: numbered ID for each movie
- title: movie title
- genres: movie genre

ratings.csv:

- userId: numbered ID for each user
- movieId: numbered ID for each movie
- rating: the user's movie rating
- timestamp: the time of the user's rating

System Features

The movie recommendation system displays the top ten correlating movies based on the movie they input into the script. It will ask them to use proper punctuation and the year the movie came out to avoid any duplicate movie titles, resulting in errors when generating the recommendations. It gives an example of how to input their movie like this: 'Movie Title (2000)'.

Once they have input their movie selection, it will nicely print out the top ten movie recommendations and ask them if they would like to use the system again. It will continue to loop through the system until the user indicates that they no longer wish to use it.

Installations and Requirements

This system will require the following Python libraries to be imported:

- pandas
- numpy
- Optional:
    - warnings
    - time

I had to import the warnings and time libraries in order to avoid issues with encountering benign warnings and with the user input field populating before it asks if they would like to use the recommendation system. Feel free to skip the optional libraries if you do not have issues.

Using the Recommender

You can use the recommendation system in either Jupyter Notebook or any other Python IDE, such as PyCharm. This recommender could also be run in a Python terminal. If you wish to use it in Jupyter Notebook, download the .ipynb file for use in your own Jupyter Notebook or copy each cell into your Jupyter Notebook. You may also copy and paste the code into another Python IDE if you prefer a different IDE besides Jupyter Notebook. If you wish to use it in a Python terminal, copy and paste the cells into the terminal and run it using the "if __name__ == "__main__"" line of code.

Once the "if __name__ == "__main__"" line has been run, the script will ask for the user's input until it receives input telling it to stop ("N" or "n").

Contact

For any questions or concerns, please feel free to contact me, Ahria Dominguez, at ahriadominguez@outlook.com.