



RECOMMENDER SYSTEM

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Recommender system

Recommender system is an algorithm to suggest relevant information to the user.

Such algorithms are widely used in platforms like Netflix, Amazon Prime, Facebook, Twitter etc.

The objective of the paper is to build such a recommender system using movie lens dataset.

Data Ingestion & transformation

- The movie lens data contains four different files –
 - Movies
 - Ratings
 - Tags
 - Links
- The dataset in all the four files are loaded into respective data frame.
- The individual dataframes are merged to create one with all the required attributes.

Process

The data is explored and analyzed for details like average rating for a movie title, and total number of ratings for a title. The data frame is then pivoted to list the movies as the columns and users as the rows and with the rating values filled in. A function is created to determine the correlation for every movie with another. The correlation values are then added to data frame with average ratings. In the main method, the user input of movie title is obtained and passed to the function to determine correlation. All the related movies are then printed in the output.

Results

For a given input, the recommender gives all the movies with correlation along with the total number of ratings for the movies.

For example, for the movie, '2001: A Space Odyssey (1968)', the output is obtained as,

title	Correlation.	Total Ratings
2001: A Space Odyssey (1968)	1.0	1525
Big Lebowski, The (1998)	1.0	962
Fight Club (1999)	1.0	2322
Léon: The Professional (a.k.a. The Professional) (Léon) (1994)	1.0	1029
Pulp Fiction (1994)	1.0	29955

References

The below listed link was referred for recommender system building -

<https://analyticsindiamag.com/how-to-build-your-first-recommender-system-using-python-movielens-dataset/>