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Movie recommender

[Team ID\_8]

Movie Recommender

Introduction:

/\* Discuss in brief the project main idea and the objectives\*/

The main idea of the project is to select the top 10 similar movies for each movie in the dataset based on the user’s ratings.

Methodology:

/\*Discuss the methodologies used in order to fulfil your objectives (i.e. The feature sets and the models implemented) \*/

1.Data Preprocessing:

1. Out of the whole data, the most important features we will need are “userId” & “movieId” features. So, we started preprocessing by using pivot() function which is used to reshape a given dataframe organized by given index and column values. Pivot() function is applied on ratings file setting the index to “movieId” and columns to “userId”. Then, creating a new dataset called “final\_dataset” which is set to that new dataframe.
2. Filling undefined cells: it is done by just filling these cells by 0 instead of “NaN” using fillna() function.

2. Features extraction.

3. Model training and testing

Data Set Summary:

/\*Answer the following Questions:

1-What is the data set used?

This dataset describes 5-star rating and free-text tagging activity from [MovieLens], a movie recommendation service. It contains 100836 ratings and 3683 tag applications across 9742 movies. These data were created by 610 users between March 29, 1996 and September 24, 2018. This dataset was generated on September 26, 2018. The data are contained in the files `movies.csv` and `ratings.csv`.

2- What is the summary of the dataset columns?

Movies Data File structure(movies.csv):

Movie information is contained in ‘movies.csv’ which has three columns; “movieId” containing a unique ID for each different movie, “title” carrying movie titles and “genres” column which contains the movies’ genres.

Ratings Data File Structure (ratings.csv):

All ratings are contained in the file `ratings.csv`. Each line of this file after the header row represents one rating of one movie by one user, and has the following format:

userId, movieId, rating, timestamp

The lines within this file are ordered first by userId, then, within user, by movieId.

Ratings are made on a 5-star scale, with half-star increments (0.5 stars - 5.0 stars).

Timestamps represent seconds since midnight Coordinated Universal Time (UTC) of January 1, 1970.

3- Visualize the dataset statistics\*/

Results:

/\*Use suitable graphs to visualize your models results\*/

