MOVIE RECOMMENDER SYSTEM

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PROBLEM STATEMENT

▸ FINDING CONTENT FOR USERS

▸ RANKING CONTENT FOR USER

Problem:
Can we find content for users based on what they have already rated
Can we present it to them in ranked fashion

BUSINESS VALUE

▸ KEEP USERS SUBSCRIBED

▸ ATTRACTS NEW USERS

Constantly providing suggestions on content will keep users subscribed
Lure new users by showing what content we offer that they should watch based on ratings
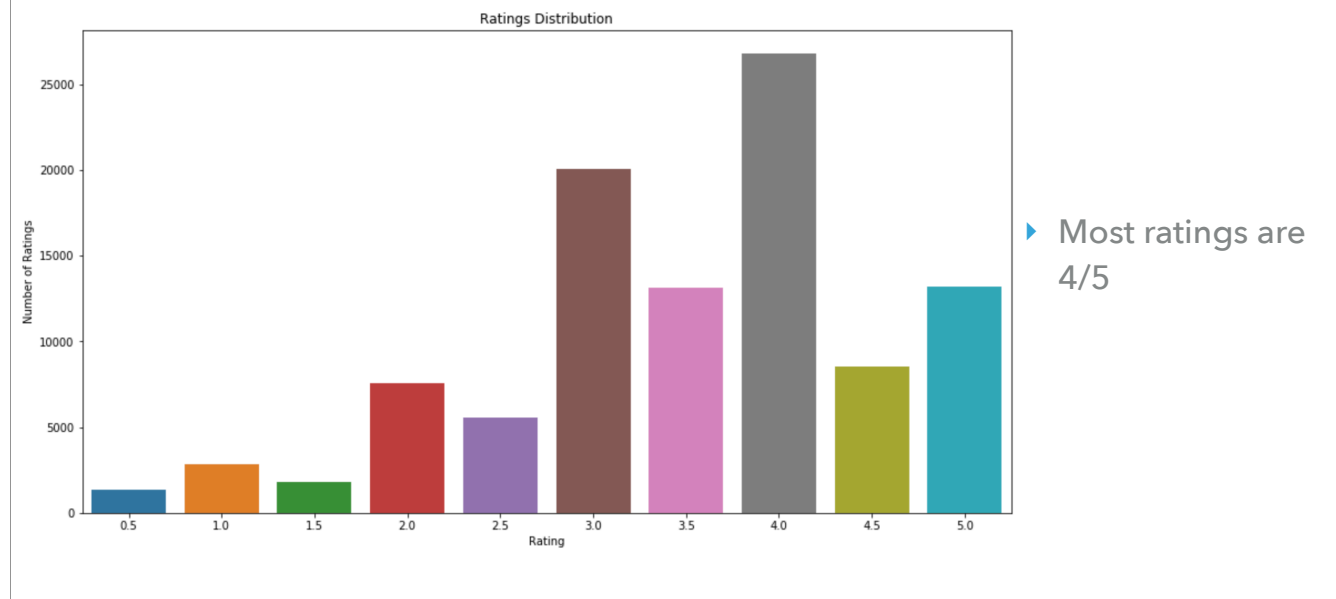
METHODOLOGY

▸ COLLABORATIVE FILTERING

▸ RANDOM USER RATING GENERATOR

▸ GRID SEARCH PARAMETER TUNING

Used collaborative filtering which utilizes user similarities
Generated a new user and randomly rated random movies to showcase recommender
Utilized grid search to tune parameters to minimize error

FINDINGS

Ratings Distribution

Most ratings are 4/5

Graph showing how different ratings are distributed

Most ratings are 4 out of 5

SAMPLE OUTPUT

```
Recommendation #  1 :  277     Shawshank Redemption, The (1994)
Name: title, dtype: object

Recommendation #  2 :  602     Dr. Strangelove or: How I Learned to Stop Worr...
Name: title, dtype: object

Recommendation #  3 :  906     Lawrence of Arabia (1962)
Name: title, dtype: object

Recommendation #  4 :  686     Rear Window (1954)
Name: title, dtype: object

Recommendation #  5 :  841     Streetcar Named Desire, A (1951)
Name: title, dtype: object
```

After generating new user ratings, recommender suggested 5 Movies

FUTURE WORK

▸ ALLOW USER TO DIRECTLY INPUT RATINGS

▸ RANK CONTENT BASED ON RATINGS

▸ USE RANK AND VIEWS TO ESTABLISH PREMIUM CONTENT

Instead of generating new user ratings, allow user to input
Figure which movies are rated the highest, the most frequent and use that to establish premium content

THANK YOU