Movie Recommendation System

dataset

The dataset contained two databases which were merged based on movie_id. Majority of the work was done in data per-processing. After merging the table contained

Data columns (total 23 columns):

```
 #   Column                Non-Null Count  Dtype
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 0   budget                4809 non-null   int64
 1   genres                4809 non-null   object
 2   homepage              1713 non-null   object
 3   id                    4809 non-null   int64
 4   keywords              4809 non-null   object
 5   original_language     4809 non-null   object
 6   original_title        4809 non-null   object
 7   overview              4806 non-null   object
 8   popularity            4809 non-null   float64
 9   production_companies  4809 non-null   object
 10  production_countries  4809 non-null   object
 11  release_date          4808 non-null   object
 12  revenue               4809 non-null   int64
 13  runtime               4807 non-null   float64
 14  spoken_languages      4809 non-null   object
 15  status                4809 non-null   object
 16  tagline               3965 non-null   object
 17  title                 4809 non-null   object
 18  vote_average          4809 non-null   float64
 19  vote_count            4809 non-null   int64
 20  movie_id              4809 non-null   int64
 21  cast                  4809 non-null   object
 22  crew                  4809 non-null   object
```

Here, genres, keywords, overview, cast (first 3), crew (director only) were merged together in tag field. And new data field contained title, movie_id and tag only.

Word vectorization was done after selecting top 5000 words from entire tags. Tags were stemmed to remove duplicates. Cosine similarity was calculated against every other vector. Based upon their similarity top 5 movies were selected for recommendation.