

CSE 523 Machine Learning Project Report -1
Movie Recommender System
Progress Report 1

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Simple Recommender:

The Simple Recommender provides generalized recommendations based on the popularity and also genres. More popular the movie will be, the higher will be the probability of being liked by the average audience. These will be based on the audience ratings. These will not be personalized based on the user.

We have sorted the movies based on ratings and popularity and display the topmost movies of the list. Furthermore we can pass in a genre argument and get the top movies of a particular genre.

To implement the top movie chart, we will use Weighted Rating(WR). Formula for the same is as following:

$$\text{Weighted Rating (WR)} = \left(\frac{v}{v+m} \cdot R \right) + \left(\frac{m}{v+m} \cdot C \right)$$

where,

v is the number of votes for the movie

m is the minimum votes required to be listed in the chart

R is the average rating of the movie

C is the mean vote across the whole report

We will be using MovieLens dataset which consists of:

The Full Dataset: Consists of 26,000,000 ratings and 750,000 tag applications applied to 45,000 movies by 270,000 users. Includes tag genome data with 12 million relevance scores across 1,100 tags.

The Small Dataset: Comprises 100,000 ratings and 1,300 tag applications applied to 9,000 movies by 700 users.

Task performed:

- Understanding of the basic recommendation system which returns top movies from the particular genre.

<https://www.kaggle.com/rounakbanik/movie-recommender-systems>

<https://www.mygreatlearning.com/blog/masterclass-on-movie-recommendation-system/>

Outcome of the task performed:

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Task to be performed in upcoming week:

- Prepare pseudocode and main code for the basic recommendation purpose.