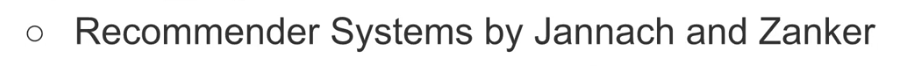
Recommender Systems

# Introduction



* There are 2 types of recommender systems: content based and collaborative filter.
* Content based recommender systems recommend a item to you due to its similarities of attributes between them i.e., this items features are similar to this other item you want, then, it gets recommended to you.
* Collaborative filter recommender systems recommend to you based on the wisdom of the crowd i.e., based on knowledge of what users like e.g., if users that liked the item you are currently on like another item you don’t know of, you might get the unknown item recommended to you irrespective of whether its features match or are similar to your preferred item.
* Its more common in real life because it typically gives better results and is easy to understand. It can also do feature learning on its own.
* CF is divided into 2 types: Memory based and Model based Collaborative filter respectively.
* Recommender systems typically handle a large amount of data sets.

# Recommender systems with python

* Import the data sets, merge and clean it.
* Get the average rating for each movie with df.groupby (’title’)[‘rating’].mean()
* Get the movies most frequently rated with df.groupby (’title’)[‘rating’].count()
* Set it to a data frame variable.
* Add a new column (number of ratings) to the ratings data frame above
* Explore the ratings data set such as no of ratings.
* Create a pivot table with user id as index, column as movie title and ratings as the value.
* Get user ratings for each movie from the ratings matrix
* Use the corrwith method to find the movies in the pivot table that correlate with each movie e.g., movie\_mat.corrwith (star\_wars\_user\_ratings)
* Screen out movies with very low number of reviews to reduce the number of wrong recommendations by joining the number of ratings column to it and filtering by number of ratings.