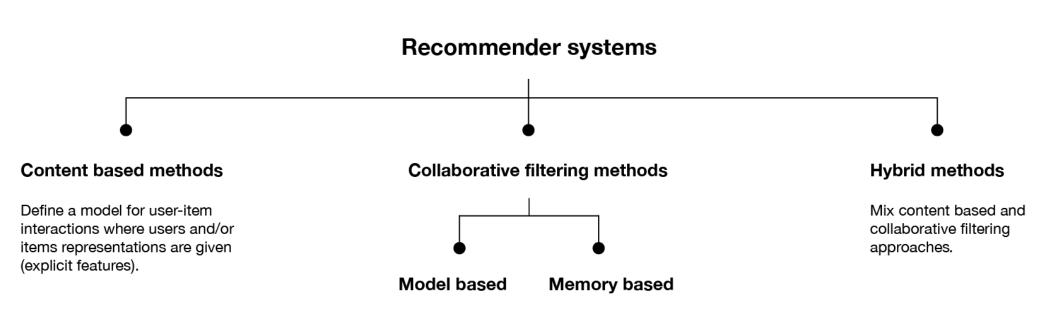


the dataset

- The dataset 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. The dataset consists of four csv files and a readme text file: links, movies, ratings, and tags with the following parameters:
- movies.csv
 - (9742, 3) rows/columns
 - 'movield', 'title', 'genres'
- ratings.csv
 - (100836, 4) rows/columns
 - 'userld', 'movield', 'rating', 'timestamp'
- tags.csv
 - (3683, 4) rows/columns
 - 'userId', 'movieId', 'tag', 'timestamp'
- links.csv
 - (9742, 3) rows/columns
 - 'movield', 'imdbld', 'tmdbld'
- README.txt
 - much like a dictionary

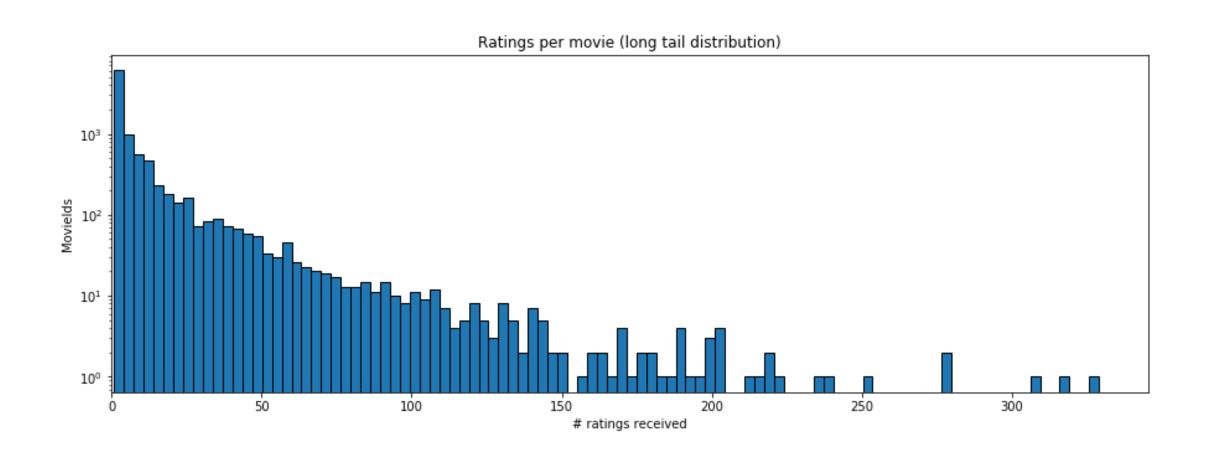
Recommendation systems in general



Define a model for user-item interactions where users and items representations have to be learned from interactions matrix.

Define no model for user-item interactions and rely on similarities between users or items in terms of observed interactions.

The need for recommendation systems



```
2001: A Space Odyssey (1968)
                                          1.280072
Blade Runner (1982)
                                          0.671624
African Queen, The (1951)
                                          0.627018
Lawrence of Arabia (1962)
                                          0.622976
2010: The Year We Make Contact (1984)
                                          0.616504
North by Northwest (1959)
                                          0.596037
Abyss, The (1989)
                                          0.587159
Untouchables, The (1987)
                                          0.586499
Clockwork Orange, A (1971)
                                          0.570817
Chinatown (1974)
                                          0.568316
```

Ratings based recommendations

```
# genre based recommendations
 2 | genre based recommendations('Zombieland (2009)')
7154
                                         Zombieland (2009)
8434
                                         Zombeavers (2014)
8565
                        Dead Snow 2: Red vs. Dead (2014)
9035
             Scouts Guide to the Zombie Apocalypse (2015)
62
                               From Dusk Till Dawn (1996)
6251
                                  Snakes on a Plane (2006)
6324
                                              Feast (2005)
11
                       Dracula: Dead and Loving It (1995)
654
        Tales from the Crypt Presents: Bordello of Blo...
1478
                                           Gremlins (1984)
Name: title, dtype: object
```

Genre based recommendations

The benefits of a recommendation system

- 'Alibaba achieved growth of 20% conversion rate using personalized landing pages' (Alizila)
- 70% of YouTube videos are based on their recommendation implementation
- Netflix saves nearly a billion each year thanks to their recommendation system(ACM.org)
- The Amazon Recommendations Secret to Selling More Online. "Judging by Amazon's success, the recommendation system works. The company reported a 29% sales increase to \$12.83 billion during its second fiscal quarter, up from \$9.9 billion during the same time last year. (rejoiner.com)

