**Fundamentals of Data Science**  
Recommender Systems

Please import files *each\_movie\_data\_Y.csv* and *each\_movie\_data\_R.csv*. Y is a matrix sized 1682x943 containing ratings (1-5 scale) of 1682 movies watched by 943 users. R is the matrix of the same size where R(i,j) = 1 when user *j* watched movie *i*.

File *movie\_ids.txt* contains identifiers of movies and their names.

Create a vector of your ratings – start with a vector of 1682 zeros and fill ratings for at least 20 movies. Check movie names corresponding to each index of the vector in the *movie\_ids.txt file*.

**Calculate recommendations for the movies you have not watched (zero values)** using user-based collaborative filtering. It essentially is based on finding k-nearest neighbors of users similar to us, who have watched given movie, and is achieved by using mean of ratings given by our neighbors. You can check the lecture slides for details.

Do you find obtained recommendation meaningful/accurate?