

# ASSIGNMENT

## RECOMMENDER SYSTEM

### REQUIREMENTS:

In this assignment, you are required to implement a Collaborative Filtering (CF) recommender system for films recommendations. Your goal in this problem is to implement a CF recommender system for recommending films from the file "movies.csv", based on user ratings found in "ratings.csv". Use the first 200 users only to generate the similarity matrix. You can only employ the 200 films within your analysis.

1. You are supposed to calculate the similarity matrix through employing the cosine similarity function, using movies.csv and ratings.csv files.
2. Use the calculated similarity matrix to match movies in order to list the top 10 similar movies to recommend Ex:
  - a. Movie ID: 1, Title "Toy Story (1995)".
  - b. Movie ID: 4, Title: "Waiting to Exhale (1995)".
3. Use the calculate similarity matrix to recommend 3 films to userID 200. **(Bonus)**

### GENERAL INSTRUCTIONS

- 1- This is an individual task.
- 2- The **source code (.ipynb)** with **sample output** as well as the **report** describing your functions and output should be submitted through Google Classroom.
- 3- Make sure to clearly add **comments to your code describing each function**.
- 4- Please review the definition of cheating in the first presentation.