Systems and Biomedical Engineering Department Faculty of Engineering Cairo University

Fourth Year / Al in Medicine

Due Date 11/01/2021

Assignment #6 Recommender Systems

In this assignment, you are to implement a Collaborative Filtering(CF) recommender system for films recommendations.

Your goal in this problem is to implement a CF recommender systems 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
 - Movie ID: 1, Title "Toy Story (1995)".
 - Movie ID: 4, Title: "Waiting to Exhale (1995)".
- 3- Use the calculate similarity matrix to recommend 3 films to userID 200.

General Instructions

- 1- This is an individual task.
- 2- The source code 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- The due date for the submission of this phase is Sunday, January, 11, 2021 at 12:00 am.
- 5- Please Review the definition of cheating in the first presentation.