Assignment 4: Explanations for Why-not Questions in Recommender Systems

Due: **December 4, 2023**
Points: 30/100
Submit: Upload files at Moodle

Motivated by the why-not questions and explanation methods we discussed in class (please see also at the corresponding research paper https://homepages.tuni.fi/konstantinos.stefanidis/docs/wise20.pdf), the goal of the fourth assignment is to design (**Score: 40%**) and implement (**Score: 40%**) methods for producing explanations for group recommendations for the *granularity* case for both *atomic* (e.g., Why not Matrix?) and *group* (e.g., Why not action movies?) cases, as well as for *position absenteeism* case (e.g., Why not rank Matrix first?).

Produce a group of 3 users, and for this group, show the top-10 recommendations, i.e., the 10 movies with the highest prediction scores, using the **MovieLens 100K** rating dataset. Given this recommendation list, take as input one why-not question example from each of the above cases and report the corresponding explanations (**Score: 10%**).

Any programming language for your assignment is acceptable. Please explain any assumptions you made.

Prepare also a short presentation (about 5 slides) to show how your method works (**Score: 10%**).

Submit your files at Moodle the latest at **DECEMBER 4, 2023 (before 11.00pm)**. Some instructions on how to run your codes are necessary.

The assignment may be completed in pairs. Each pair submits one only assignment, and both students are expected to understand, be able to explain, and be able to modify the implementation.

Note: For each 1-week delay in an assignment submission, you lose 10% of your assignment score.