Deliverable 01: Collaborative Filtering model

The goal in this assignment is to complete the code template to produce a working Collaborative Filtering model. This implementation follows the lecture and the section on Collaborative Filtering on pages 321-327 of the book.

Assignment: You are expected to complete the code template

1) *calculateCosine* method in *Util.java*.
2) *predictRatings* methods in *CollaborativeFiltering.java*

Although completing the template suffices for a pass on this deliverable (6/10), you are encouraged to alter the algorithm with what you have learned in the course. Its performance can be improved by:

3) Incorporating item-item similarities,
4) Local and global effects
5) Different similarity metric.
6) Improve speed by for example LSH

Style: We expect you to properly comment your code so that it will be obvious to us what each line does. Furthermore, use appropriate and consistent variable naming so that it is clear what each variable refers to (e.g. userRating).

Submission: Your code has to be submitted to https://cpm.ewi.tudelft.nl under Data Mining: Deliverable 01. It should be a zip-file named after your student ID (e.g. 4225139.zip) with 1 folder named 'src' that contains only your source files (no data files).

The code needs to be self-contained and should not require external libraries to compile or run.

Good luck!