6. Recommender systems

Task

- Use the existing MovieLens dataset
  - use the dataset version recommended for education and development
  - Focus on the **ratings.csv** and **movies.csv** dataset partitions
- Implement **content-based** recommender system (Details: Content-based recommender system)
- Implement **hybrid recommender** system (Details: Hybrid recommender system)
- Implement simple recommender using existing framework (e.g TFRS)
- **Evaluate** your implementations
  - split your dataset in two parts
    - example: `awk ,NR % 2 != 0‘ ratings.csv > new-ratings.csv` (!= for training part, == for testing part)
    - training: one part to compute similarities and generate recommendations
    - testing: other part to evaluate the recommendations
  - Evaluation metrics
    - compute **Precision, Recall, F-measure**
    - you can re-use code from homework 5
  - Evaluate the:
    - content based implementation
    - collaborative filtering implementation (from the tutorial)
    - hybrid approach
      - try out at least three different weghting scheme
      - e.g. 0.3+0.7, 0.5+0.5, 0.7+0.3
    - model using framework