

Assignment: Recommender System

In this assignment you will implement a simple movie recommender system. You will use the MovieLens dataset from the sample movie ratings data

<https://grouplens.org/datasets/movielens/> (Small: 100,000 ratings and 3,600 tag applications applied to 9,000 movies by 600 users. Last updated 9/2018), **ml-latest-small.zip** (size: 1 MB). Familiarize yourself with the format of the data by reading the README.txt file. You can write your own Python code or use an existing Python library such as <http://surpriselib.com/>.

You should submit your code (1 file) and report (1 PDF) to Blackboard which answers the following questions:

- [5 points] Determine the top-10 recommendations for user #100 using user-user collaborative filtering with Pearson correlation and cosine similarity.
- [5 points] Evaluate your recommendation system using Precision and Recall at 10 and neighborhood size from 2 to 50.
- [5 points] Determine the top-10 similar movies to (Toy Story) and (Batman Forever).