IS 643 – Project 1

The goal of this assignment is to help you build your intuition about recommender systems, with a basic soup to nuts implementation coded "from scratch."

Your task is to build a very basic recommender system, first by writing your own functions, then by replacing those functions with those provided in an R Package or a Python library (such as scikit-learn).

- You should very briefly first describe the recommender system that you're going to build out from a business perspective, e.g. "This system recommends movies to users."
- You can find a dataset, or build out your own toy dataset and load into (for example) an R or pandas dataframe, a Python dictionary or list of lists, (or other data structure of your choosing).
- You can use either collaborative filtering, or a hybrid of content management and collaborative filtering.
- You are encouraged to hand code at least your similarity function.
- After you have built out your own code base, create an alternate version using packages or libraries. Compare the results and performance.
- You are also encouraged to think about how to best handle missing data.
- Your code should be turned in an RMarkdown file or a Jupyter notebook, and posted to Github.

You may work in a small group (2 or 3 people) on this assignment. While you're never discouraged from adding features or advanced capabilities such as regularization and matrix factorization methods, it is not expected at this point in the course.