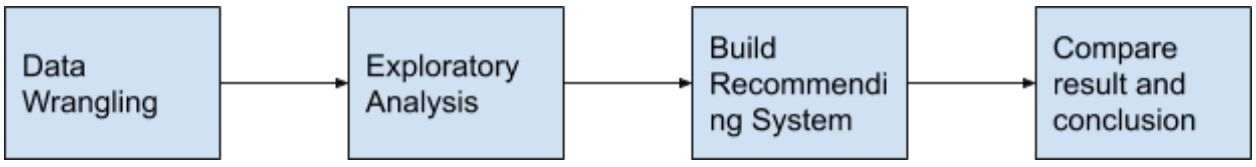
Capstone Project 2 Proposal

What do people do when they are bored? Watch a movie, read a book, or play video games, etc. If you choose to play video games, it is not surprising you have used or heard of Steam before. Steam is one of the biggest digital game distributors owned by Valve. There are ninety million active users in Steam according to variety.com. Users pay a one-time fee for most games on Steam. They can comment and rate the game or even recommend games to their friends. The feature is also helpful for users that want to explore new games before purchasing. It is similar to purchasing products from Amazon; people look at the review and rating before they make their bet. In this project, I am going to build 3 different types of recommending systems: collaborative system, content-based filtering, and hybrid recommendation system using the data downloaded from https://cseweb.ucsd.edu/~jmcauley/datasets.html#steam_data. (The citations to the data will be at the last page) I am going to compare the result of the three models and see which one performs the best.

There are 4 files that I am going to use. The files' size is ranging from 25mb to 4gb containing many features such as user ids, user reviews, game or, game price, game publisher, genre, etc. The flowchart is below:



Citation

Self-attentive sequential recommendation

Wang-Cheng Kang, Julian McAuley

ICDM, 2018

pdf

Item recommendation on monotonic behavior chains

Mengting Wan, Julian McAuley

RecSys, 2018

pdf

Generating and personalizing bundle recommendations on Steam

Apurva Pathak, Kshitiz Gupta, Julian McAuley

SIGIR, 2017

pdf