

# PROJECT FLETCHER PROPOSAL

## MOVIE RECOMMENDER SYSTEMS USING UNSUPERVISED LEARNING TO CLUSTER USERS

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### DOMAIN

In Project Fletcher, I will scrape 10000 movies from IMDB released till July 2018. I will use unsupervised learning to understand what type of natural clusters exist within these movies .

NLTK will be used preprocess the synopsis of these movies and TF-IDF vectoriser to convert the synopsis of these movies into a feature vector. I will use dimensionality reduction techniques to try to improve my clustering output on a small dataset where the features are very numerous relative to the number of samples.

User Ratings for these movies are on a scale of 1-5 and can be obtained from the official GroupLens website. I will use this dataset to map users to movies

### OBJECTIVE:

The goal is to build a recommender system that maps users to movies based on the cluster of the movie and user history. I will be using content based recommendation and collaborative filtering techniques to make the movie recommender system