**Capstone Project #2** –
**Recommendation System for movies**

**Problem**:
It has been estimated that there are approximately 500,000 movies currently in existence.There are currently over 135,000 cinema screens worldwide on which approximately 8,000 movies are released internationally each year. In the evolutionary view, this situation creates `selection pressure' on individual movies, as not all movies are equally popular; industry-supply and audience-demand for specific movies (in fact, for specific movie stories) are asymmetrical(or at least seems so), as most movies lose money. The audience will not be spending their time watching every movie available to them, they will pick randomly something to watch. If a person picks a movie and does not enjoy it there will be no positive word-of-mouth. This doesn't necessarily mean the movie was bad, it might mean it was not interesting to that individual.

This is where the recommendation system is helpful. Recommendation system helps the user find items of their interest and Helps the item provider to deliver their items to the right user. It increases revenues for business through increased consumption.Movie Recommendation systems are becoming increasingly important in today's extremely busy world as it helps audiences to make the right choices, without having to expend their cognitive resources.

In this project goal is to Build Content Based and Collaborative Filtering Based Recommendation Engines for movies.

**Clients:**

Producers and distributors of movies.

**Data**: These files contain metadata for all 45,000 movies listed in the Full MovieLens Dataset. The dataset consists of movies released on or before July 2017. Data points include cast, crew, plot keywords, budget, revenue, posters, release dates, languages, production companies, countries, TMDB vote counts and vote averages.

This dataset also has files containing 26 million ratings from 270,000 users for all 45,000 movies. Ratings are on a scale of 1-5 and have been obtained from the official GroupLens website.

https://www.kaggle.com/rounakbanik/the-movies-dataset

**Approach:**

To implement a few recommendation algorithms (content based, popularity based and collaborative filtering) and to build an ensemble of these models to come up with our final recommendation system.

**Deliverables:**

The project deliverables will include Jupyter notebooks containing methods used and code to support the analysis. In addition, a final report will be delivered.