In our tenure of over 2 months interning with this organization, we were allotted a project that required us to build a Recommendation Engine for increasing the viewership engagement of ErosNow.  
While building this project, We have kept under consideration various aspects that influence the decision making process of the viewers, as to which shows/movies to watch and where to watch them.  
We live in a country that is extremely culturally and linguistically diverse. In respect to that, we understand that every individual is different & so is his perspective and choices.

We had briefed ourselves, with the user-user based recommendations system, which is currently being used by ErosNow in 2018.The current recommendations portal, shuffles the content generated from the clustered users, based upon their similarity index from their watch history, in general. There is no diversity in choices according to one’s individuality and the content isn’t personalized to his liking. Which therefore, decreases the viewership engagement, hinders the motivation and alters the momentum of the audience to view the content on your channel.

Our recommendation engine analyzes the individual’s viewing history and helps decide which shows to surface on their ErosNow home page. For eg, ‘Because you watched Dil Chahta Hai’ - You might also like to watch a movie like Zindagi Na Milegi Dobara, Aisha - lists.In reference to the constraints derived from the data extraction process currently being partitioned by our platform, we had to come up with a new Algorithm theory, which doesn't entirely depend on ratings but will still be able to give personalisation in accordance with the user’s behaviour.

Following are the presumptions that we have taken:

1. Since,the amount of the user-favourite content data was very limited, progressing with it would have lead to a poor training model. We then had to go ahead with the daily-user history, where we had to assume that the user watched a specific movies because they liked that movie.
2. We have given importance the number of times a viewer has watched a particular movie. For which, the count has been used.
3. In order to develop a reasonable Bias-Variance trade off with the recommendation model we have developed, the data was derived only from those viewers who have watched more than 14 movies on Erosnow.

With the help of an effective and accurate recommendation engine, ErosNow will be able to carefully curate the results based on everything they’ve learned about the viewer, their selection of genres, year of release, based on their languages, times the movies/TV Shows have been played, if the user is more interested in new releases, movies from 90’s, etc. converting these to numbers (data) and establishing a numeric score, that helps match best to the viewer’s interests and liking.

This recommendation engine is what will allow ErosNow to understand which audiences will be interested in the mass market fare like, Bajirao Mastani and which audiences will be interested in quirkier movies like the Grand Masti. Therefore, we will be able to understand the viewer's demand, and provide him with our content accordingly. Hence, we have taken the liberty to build a system which dynamically changes the suggestions offered to the users, according to their preference.

In comparison with our competitor, Netflix has completely relied on its storied recommendations engine to drive their viewership & keep them engaged for the long term. Around 80% of the TV shows people watch on Netflix are discovered through their recommendation engine platform. With the help of the data derived from it, they run an analysis and find the most suitable & efficient way to invest further with the user.

Now that Erosnow is planning to make a comeback with Eros Originals, there’s a lot of scope for improvement on the grounds of our current recommendation engine. And we will be more than grateful to be a part of such a game changer initiative.

PFA Code file "Item Based Recommendation Engine - Internship Project" and Pictures inline for a Quick glance at the results achieved

FYI Project has been done in Notebook Environment(Jupyter Notebook of [Anaconda Distribution](https://en.wikipedia.org/wiki/Anaconda_(Python_distribution))) using Python Programming Language