**BE : Project Abstract 26 July 2017**

**Group Number:** 27

**Priority : 1**

**Project Title :**  TeenHub

**Group Members:**

1. Kedar K Kale
2. Pranav N Jain
3. Ganesh D Choudhary
4. Paresh R Aher

**Abstract :**

The domain of our project falls into two categories: Machine Learning and Advanced Web Application. In this project we are planning to visualize the Machine Learning algorithms on the web applications by using smart data visualization tools, algorithms and techniques and not limiting them to just run onto terminals. It will be an all in one package for entertainment news and ratings.

Our project is an entertainment hub for people of all age groups. It is divided into 4 main parts:

1. Movies Section
2. Songs Section
3. News Section
4. Games Section

The users will have one common login for all the 4 parts. The users will get a dashboard to see their own data and activities on interactive charts. The user can login as a guest or make an account for self. The recommendation engine will recommend the user movies based on his previous ratings for movies . Also , when the user browses through movies , songs or games , KNN algorithm will make sure to display the user with suggestions similar to the current item. We have also included a news app to keep the user updated with the latest of news in the entertainment industry.

The project will have a custom search engine based on TF-IDF algorithm to navigate through the application . The movie recommendation engine will be based on KNN algorithm and will be trained on a dataset of not less than 1,00,000 real ratings.

**Technologies used :**

Framework:

1. Django

Machine Learning Algorithms that will be used:

1. KNN - K Nearest Neighbors
2. TF-IDF - Term Frequency - Inverse Document Frequency
3. Recommender System with the help of 'pandas'

Data Visualization Libraries:

1. Chartist JS library

Languages:

a) Python

b) JavaScript

c) SQL

d) HTML & CSS

**Reference paper*:***

# Title: Web-based personalized hybrid book recommendation system

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# Authors:

# [Salil Kanetkar](http://ieeexplore.ieee.org/search/searchresult.jsp?searchWithin=%22Authors%22:.QT.Salil%20Kanetkar.QT.&newsearch=true)

# Department of Computer Engineering, VES Institute of Technology

# [Akshay Nayak](http://ieeexplore.ieee.org/search/searchresult.jsp?searchWithin=%22Authors%22:.QT.Akshay%20Nayak.QT.&newsearch=true)

Department of Computer Engineering, VES Institute of Technology

1. [Sridhar Swamy](http://ieeexplore.ieee.org/search/searchresult.jsp?searchWithin=%22Authors%22:.QT.Sridhar%20Swamy.QT.&newsearch=true)

Department of Computer Engineering, VES Institute of Technology

Link of reference paper: http://ieeexplore.ieee.org/document/7012952/authors