Computer Engineering Department

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UNIVERSITY OF MUMBAI

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A Project Report on

Movie Recommendation System

Submitted in partial fulfillment of the degree of

Bachelor of Engineering(Sem-7)

in

Computer Engineering

By

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Under the Guidance of

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Approval Sheet

This Project Report entitled ***"Movie Recommendation System"*** Submitted by ***Pritamkumar Jain (16102048), Sayyam Shah (17202009), Ranjeet Singh (17102074), Prathamesh Sherkar (16102029)*** is approved for the partial fulfillment of the requirement in ***Computer Engineering*** from ***University of Mumbai*** .

(Prof. Amol Kalugade)

Guide

Prof. S.H.Malave

Head, Computer Engineering Department

Place:A.P.Shah Institute of Technology, Thane Date:

CERTIFICATE

This is to certify that the project entitled ***"Movie Recommendation System"*** submitted by for the partial fulfillment of the requirement for award of a ***Pritamkumar Jain (16102048), Sayyam Shah (17202009), Ranjeet Singh (17102074), Prathamesh Sherkar (16102029)*** degree ***Bachelor of Engineering*** in ***Computer Engineering***, to the University of Mumbai, is a bonafide work carried out during the academic year 2020-2021.

(Prof. Amol Kalugade)
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Date:

DECLARATION FORM

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, We have adequately cited and referenced the orig- inal sources. We also declare that We have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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(Signature)

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Pritamkumar Jain (16102048)
Sayyam Shah (17202009)
Ranjeet Singh (17102074)
Prathamesh Sherkar (16102029)

Date:

1.Project Conception and Initiation

1.1
Abstract

- With the development of mobile Internet, the TV industry is facing threats and challenges. This is because Big Data is changing the industry. The primary task of TV industry like Netflix is how to take the advantage of Big Data technology.
- For Netflix programs, audience rating is the metrics whether the program is good or not. The more time the audience is watching the particular show,the more popular the show is for the Audience.
- This paper proposes a movie recommendation system. The system is based on Big Data technology and content based recommendation technique which can automatically push programs to audience according to their interest.

1.2 Objectives

- The primary objective is to build an algorithm that can predict similar movies according to user's interest. After building the algorithm we will be making an website to deploy the algorithm on the web and to make the algorithm user friendly.

1.3 Literature Review

- 1.Tv program recommendation system based on big data:

DOI: 10.1109/ICIS.2016.7550923 :

There are errors of program ratings recommendation system, and the program list is affected by human emotion as well. Our Program Recommended system based on Big Data reasonably gives solution to those drawbacks.

- 2. Through Data Analytics the watch time of particular Human-Machine can be used to determine the type of shows user like to watch.

1.4 Problem Definition

- To Build a recommendation system website in which if a user enter a particular movie then the system must recommend next top 10 movies which is similar to the movie user has watched.

1.5 Scope

- This paper proposes a recommendation system, which can improve audience rating. In this system we have used dataset of 5000 movies. This system uses two type of recommendation system 1: Demographic 2: content based. Demographic system uses IMDB formula to find top popular movies next in this system we use countvectorizer and cosine similarity to find movies similar to users likes.
- Further we can take the run time data of movies which will fill the attribute directly into the excel sheets using uipath application or by elastic
- stack.

1.6 Technology stack

- Google Colab
- Python Flask
- UiPath

1.7 Benefits for environment & Society

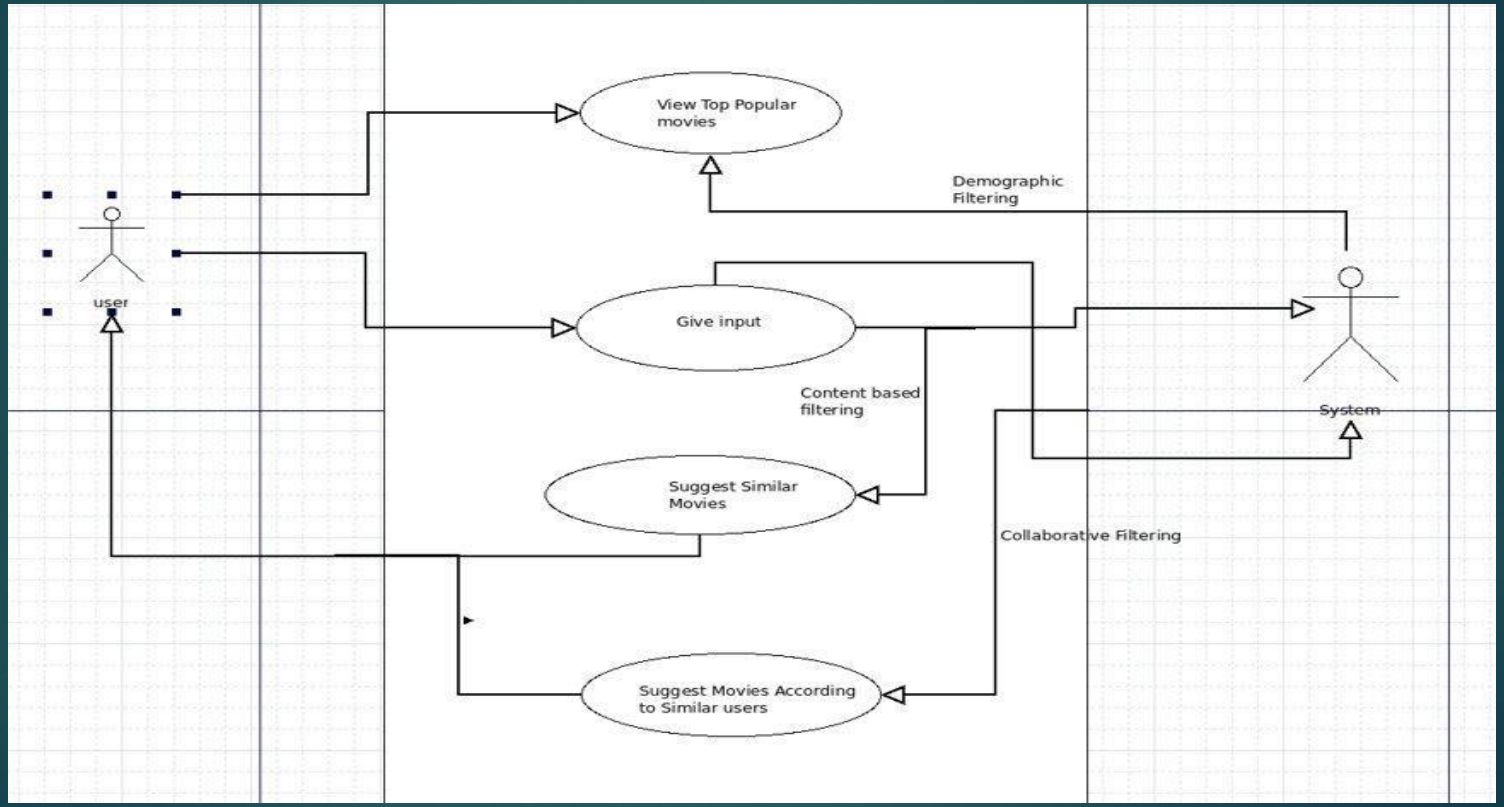
- By using this recommendation system the cable operators having there default channel which are free to the users can start showing them the popular movies on that channel .By this way the cable operators will get the money which will be generated by the advertisement and the end users will not have to pay extra money for getting the channels which are showing similar movies.

2. Project Design

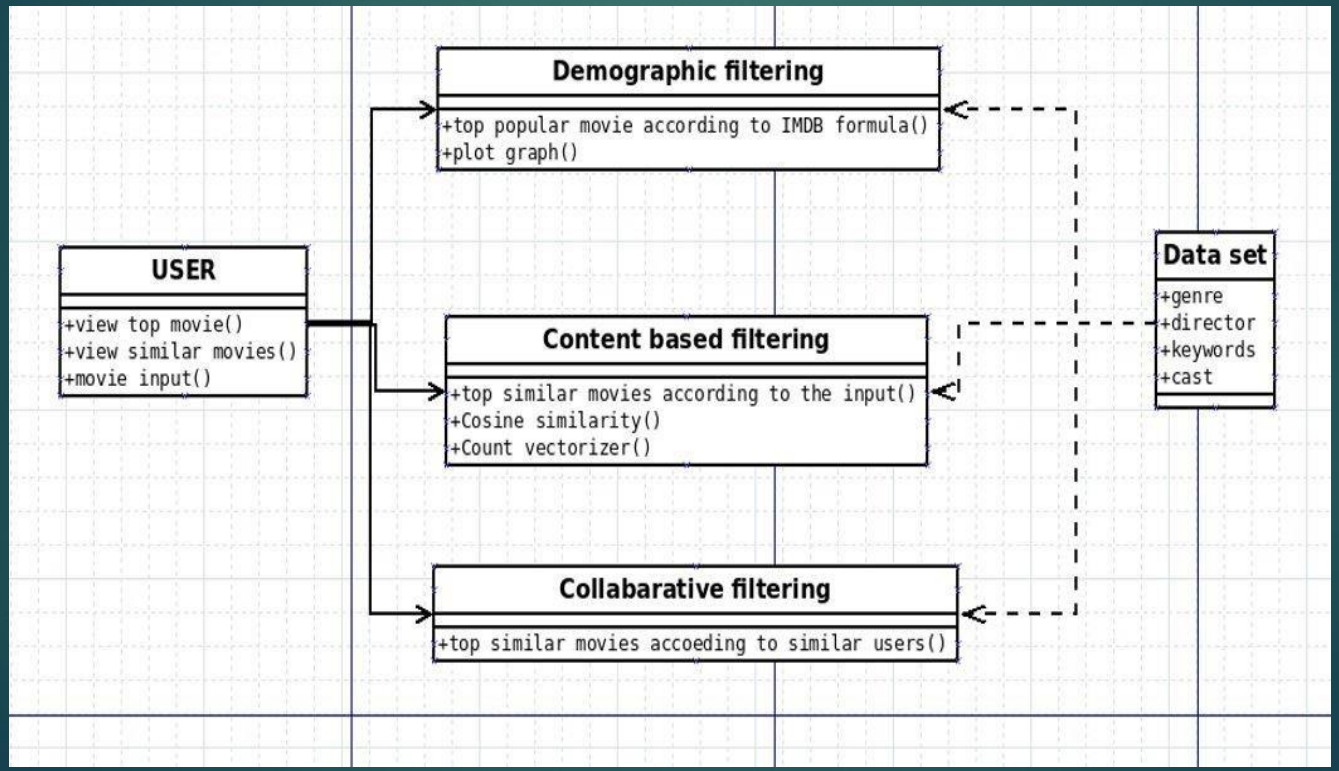
2.1 Proposed System

- We propose a recommendation system in which at first we will build an system using content based filtering to recommend the movies. we will also make use of uipath tool to take run time data into excel sheet to get latest movie dataset and after that we will make an website to make the recommendation system user friendly.

2.3 Description Of Use Case



2.4 Activity diagram



2.6 Module-1: Content Based Filtering

We will use an algorithm for recommendation of movies by using python programming language

Module-2:Uipath

We will use Uipath Application to take real time data from website into excel sheet and to be able to recommend the latest movies released.

Module-3: User Interface

We will embed the algorithm into the website by using python flask to make the recommendation system user friendly.

2.7 References

- 1. Oh J, Sung Y, Kim J, et al. Time-Dependent User Profiling for TV Recommendation[C]//Cloud and Green Computing (CGC), 2012 Second International Conference on. IEEE, 2012: 783-787.
- 2. Verma J P, Patel B, Patel A. Big Data Analysis: Recommendation System with Hadoop Framework[C]//Computational Intelligence & Communication Technology (CICT), 2015 IEEE International Conference on. IEEE, 2015: 92-97.

3.Planning for next semester

Planning

We will be making use of uipath to take real time data into excel sheet for recommendation of recently released movies and after that we will be making an website by using python flask.

Thank You