Department of Networking and Communications

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1
Title of Experiment	To identify the Software Project, Create Business Case, Arrive at a Problem Statement
Name of the candidate	Papai Mondal
Team Members	Dhruv Deshmukh, Papai Mondal, Atharva Sohani
Register Number	RA2111028010116
Date of Experiment	03-02-2023

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	**10**	

Staff Signature with date

Aim

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for the **OTT Recommendation system.**

Team Members:

S. No	Register No	Name	Role
1	RA2111028010125	Dhruv Deshmukh	Lead
2	RA2111028010116	Papai Mondal	Member
3	RA2111028010105	Atharva Sohani	Member

Project Title: OTT Recommendation System

OTT RECOMMENDATION SYSTEM BUSINESS CASE TEMPLATE

THE PROJECT

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

- This project is a tool designed to predict and filter the movies shown in any OTT platform like Netflix as per the user's behavior.
- This project caters to fulfill the user's needs and interests in the shortest amount of time possible.
- From the company's perspective, the longer the user stays on their platform, the more income it generates for them.
- Therefore, a good recommendation system is crucial for them.

THE HISTORY

In bullet points, describe the current situation.

- Since the rise of the digital age, the expanse of OTT and Video on Demand services is continuously widening to reach millions of customers.
- The internet's availability to more remote corners of the world is adding up to OTT's vast customer base.
- Recommendation engines for OTT platforms are essential to match the dynamic needs to a wider audience with the quality and seamless content.

LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

1. Lack of Data
    - To improve the efficacy of recommender systems, we need a tremendous amount of data.
2. Changing Data
    - Past behavior of users is not a good tool because the trends are always changing.
3. Changing User Preferences
    - This is a very persistent problem. If the user has the intention to watch a horror movie one day, the next day he may decide to watch a comedy, thriller or any other genre.

APPROACH

List what is needed to complete the project.

- Knowledge of Python, its use in machine learning and APIs.
- Knowledge of HTML and CSS.
- Knowledge of how data is cleaned and scraped from the internet.
- Minimum of 4gb of RAM.
- Jupyter / Google Collab.

BENEFITS

In bullet points, list the benefits that this project will bring to the organization.

- It makes the user experience much more streamlined as they don't have to provide input all the time in order to watch what they want to.
- It saves users time from trying to search for what they want to watch and instead bring the shows to them.
- From the company's perspective, good recommender systems help in generating more profits as users will spend more time on their platform.

PROBLEM STATEMENT:-

Recommendation System is a major area which is very popular and useful for people to make proper decisions. It is a method that helps users to find out the information which is beneficial for the user from the variety of data available. When it comes to OTT Recommendation System, recommendation is done based on similarity between users (Collaborative Filtering) or by considering particular user's activity (Content Based Filtering) which he wants to engage with. So to overcome the limitations of collaborative and content based filtering generally, a combination of collaborative and content based filtering is used so that a better recommendation system can be developed.

To create a system that can recommend movies that users want to watch. The purpose of a recommendation system is to search for content that would be interesting to an individual. Moreover, it involves several factors to create personalized lists of useful and interesting content specific to each user/individual. It depends on what other people with similar traits/demographics are watching, and how likely you are to watch those movies.

OTT Recommendation System aims to recommend movies to users based on user-movie categories.

PROBLEM CONSTRAINTS

There are various challenges faced by the Recommendation system. These challenges are Cold Start problem, Data Sparsity,

Scalability.
Cold Start Problem- It needs enough users in the system to find a match.

Data Sparsity- It is very hard to find a set of users who rate the items. To give recommendations is really tough when there is less information about any user.

Scalability- Collaborative Filtering uses massive amounts of data to make reliability better which requires more resources. As information grows exponentially processing becomes expensive and inaccurate as a result of this Big data challenge.

OTT entertainment is not just limited to adults but has been making a way in children's lives through educational media.

Indian youth is another prominent segment of the OTT subscriber base. Today, college students and working professionals use OTT channels for entertainment and information

Goals and Objective

The objective of powering OTT platforms with recommendations is to personalize the online streaming experience for every viewer.

The main goal of a recommendation engine is improving your customer experience. It enables the customers to explore as per their preferences.

ESTIMATED COST

Usually, the MVP of recommendation engine projects costs vary from $5.000 to $15.000, according to the number of data to process, and

factors the algorithm should take into consideration while generating the suggestions.

Result

Thus, the project team formed, the project was described, the business case was prepared and the problem statement was arrived.