FEASIBILITY REPORT

MOVIE RECOMMENDATION SYSTEM

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1.Introduction

1.1. OVERVIEW

The Recommender system filters the data using different algorithms and recommends pertinent movies to users. It first captures the user's past behavior and suggests movies to watch as per the users' behavior.

- We can recommend movies to a user which are most popular among all the users.

- We can divide the users into multiple segments based on their preferences (user features) and recommend content to them based on their segment.

When people are browsing through large movie libraries, a recommender system enhances their user experience and increases their interest in your offering. It finds users who have similar interests. It provides recommendations for one person from a list of recently released movies that have been enjoyed by other users with similar profiles. For example, if a user liked Movie A, a movie recommendation engine would suggest other movies with similar characteristics. These characteristics could include the creator, the performers featured, the genre, the runtime, the date of release, etc.

1.2. IMPORTANCE OF RECOMMENDATION SYSTEMS

Many online companies rely heavily on customer reviews. Explicit feedback is essential in the entertainment sector, where these ratings influence all user engagements. Online streaming services like Netflix, Prime Video, Aha, and others use this rating data to power their recommendation engines, which then make suggestions for the best movies and TV programs that are unique to the user and the most relevant.

The primary issue that this initiative aims to address is the platform's user churn rate. Because a long-term user serves as a free word-of-mouth marketing conduit and a fervent supporter of the platform in his social group, it is just as important as user acquisition. We are aware that one of the most effective types of marketing is organic word-of-mouth. It also attracts traffic, engages users through diversity, improves user satisfaction with the site and user retention,

increases exchange rates. The management can choose onboarding movies that are more in line with preferences by using a movie recommender system to provide statistics on user preferences. These choices can then be supported by the provided statistics.
The system suggests new content based on the content the user interacts with; this increases user engagement on the website and can increase user retention rate and decrease churn percentage because users feel the product has a ton of content to offer that caters to their preferences.

1.3. DELINEATING THE WORK INVOLVED

- Full-stack development, including both the front end and back end, is required for the job.
- Create a movie database for the users of the platform that the client uses.
- We require a user data collection with information on the movies and TV shows they enjoy.
- We must construct an ML model that includes both collaborative and content screening.
- To create an engine that provides movie suggestions to a particular user based on the estimated ratings that it had internally calculated for that user.
- The entire system is set up on a public hosting platform like Heroku with some respectable suggestions.
- In order to finish the job, a team of at least three people will be needed for a specific amount of time.

2. Feasibility Report

2.1. CUSTOMERS

Our customer is Aha Streaming service, an Indian OTT(over-the-top) streaming service that offers Telugu movies and series content.

2.2. COMMUNICATION

Our Customers can contact us through Email-ID. Communication among team members will be through WhatsApp, google meet, email, and phone calls.

2.3. TECHNICAL FEASIBILITY

- HTML
- CSS
- React
- MySQL
- Flask
- Bootstrap
- Machine learning algorithms
- Python
- Software engineering paradigms

2.4. DELIVERABLES

A web application that shows different movies and user selection recommends the best-suited movies for a user from the dataset.

2.5. SOFTWARE MODEL

For this project, we follow the AGILE methodology.

2.6. OUTLINE PLAN

1) Front-end.
2) Back-end.
3) ML model.
4) Connecting Back-end and ML Model.
5) Deploying the Website on the Internet.

2.7. FINANCIAL FEASIBILITY

Since we already have the necessary tools and can use all of the aforementioned technologies for free, our enterprise won't face any financial difficulties.

2.8. TECHNICAL FEASIBILITY

We have laptops with dedicated GPUs that are capable of handling the project's processing needs and are strong enough for them. All these technologies can be used by the crew, and there is time to execute our application.

2.9. RESOURCE & PERFORMANCE FEASIBILITY

The following resources are necessary for the successful completion of this project:

- Programming tools, such as laptops, workstations, or personal PCs.
- Hosting space on the local site (freely available).
- Tools for programming.
- Personal programming.

Because contemporary processors have fast clock speeds, the time needed to store and process this information is minuscule. It is therefore clear that this method is feasible in terms of resources and timing.

2.10. RISK FEASIBILITY

- Size of the application depends upon the dataset into consideration that is dependent on the content customer has, and we are using a free-hosting service it has its limitations
- We have experience creating web apps, but this project is new with the technologies we are using, so we might find it challenging to integrate all these technologies, which might cause some delay in implementation.

2.11. SOCIAL/LEGAL FEASIBILITY

The initiative offers the system as an open-source system and makes use of freely obtainable open-source development tools. Only the expense of maintenance will be assessed to potential customers. The group will profit financially, and the environment will benefit because it encourages less manual work on paper.

3. CONSIDERATIONS

3.1. TECHNOLOGY CONSIDERATIONS

The dataset must contain significant clusters of users and things that are similar in order for movie recommendation systems on the market to function.

3.2. USABILITY AND EASE OF USE

A reliable high-speed Internet connection and a computer device are all that clients will need to handle in terms of additional software or hardware. The method for suggesting movies streamlines and improves customer service and administrative processes.

3.3. AVAILABILITY

The system will be available constantly. Mean time between failure and mean time between repairs will be selected to increase availability. A paid hosting space can exactly guarantee the availability.