SYMBIOSIS INSTITUTE OF TECHNOLOGY (SIT)

PBL I Poster Presentation

TITLE:Recommendation Systems

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INTRODUCTION:

In today's digital landscape, recommendation systems play an important role in directing users to personalized and relevant content. Whether it's suggesting movies on streaming platforms, products on e-commerce websites, or articles on news sites, recommendation systems have become indispensable tools for increasing user engagement and satisfaction. Every industry processes massive amounts of data on a daily basis. Extracting meaningful insights from this data can provide useful guidance for both the institution and their customers.

OBJECTIVES/AIMS:

The aim is to generate a robust, user-friendly recommendation system which has different types(content, collaborative and popularity based) to personalize user experiences by suggesting relevant items or content based on individual preferences and past behavior, ultimately enhancing user satisfaction and engagement while benefiting businesses through increased conversions and revenue.

TYPES OF RECOMMENDATION SYSTEM:

1. Collaborative
2. Content
3. Demographic based
4. Utility based
5. Knowledge based
6. Hybrid
7. Popularity based

METHODOLGY:

Data Collection

We finalized a comprehensive dataset containing sufficient data to develop content-based, collaborative, and popularity-based recommendation systems.

Data Preprocessing

This crucial step involved cleaning, transforming, and preparing the raw data to ensure its quality, consistency, and relevance.

Data Filtering

We implemented data filtering to enhance the intelligence of our model.

Algorithm Selection

We used the cosine similarity algorithm which is used for or measuring the similarity between items in our recommendation system.

Model Training

We proceeded to train our recommendation model using the preprocessed and filtered data.

Deployment

We deployed the recommendation model on GitHub.

RESULTS /CONCLUSION:

In this project, we have studied and successfully implemented various types of movie recommendation systems . We explored three distinct recommendation models: collaborative filtering, content-based filtering, and popularity-based filtering.

In conclusion, by using several machine learning techniques and different types of filterings on recommendation systems we have gain valuable knowledge that will help us create a recommendation system pertaining to the banking sector in the future that will have the potential to revolutionize the way banks interact with their customers and may give way to more efficient marketing techniques that will help the banks succeed in an increasingly competitive market landscape.

FUTURE SCOPE:

We can also apply other models like demographic-based,knowledge-based, etc that could offer valuable insights into customer preferences and behaviors.In the future, we can integrate other advanced machine learning techniques such as deep learning and reinforcement learning that may increase the accuracy of our recommendations. With the help of these techniques, we can study and analyze complex patterns and dependencies in our datasets to generate more relevant recommendations that will improve the overall customer experience.