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BOOK RECOMMENDER SYSTEM

PRESENTATION

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INTRODUCTION

Recommendation systems are powerful tools that use machine learning algorithms to provide suggestions that are useful to users based on behaviour or habit patterns or user data.

A Book Recommendation System is a machine learning-based solution designed to suggest books to users based on their preferences and behaviour.

Recommendation systems enhance user engagement, drive sales, and improve customer satisfaction by providing personalized suggestions.

This project aims to utilize advance machine learning tools to develop a book recommendation system that is tailored to meet personalized customers needs and preferences therefore helping customers with the challenge of locating or choosing which books to read considering the large electronic book presence. The data used is from Kaggle

OBJECTIVES

•Develop a recommendation system that provides tailored book suggestions.

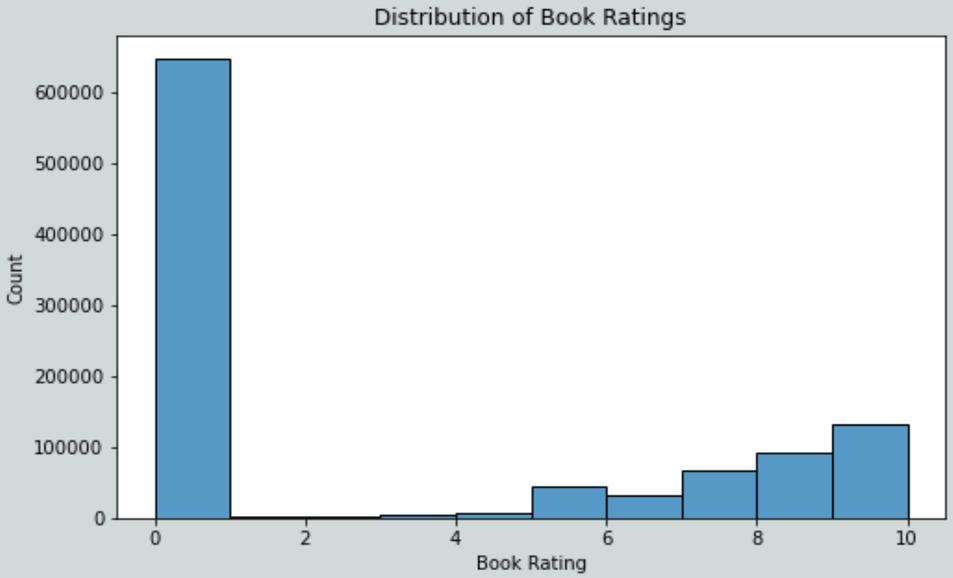
Increase book sales by recommending books users are most likely to purchase.

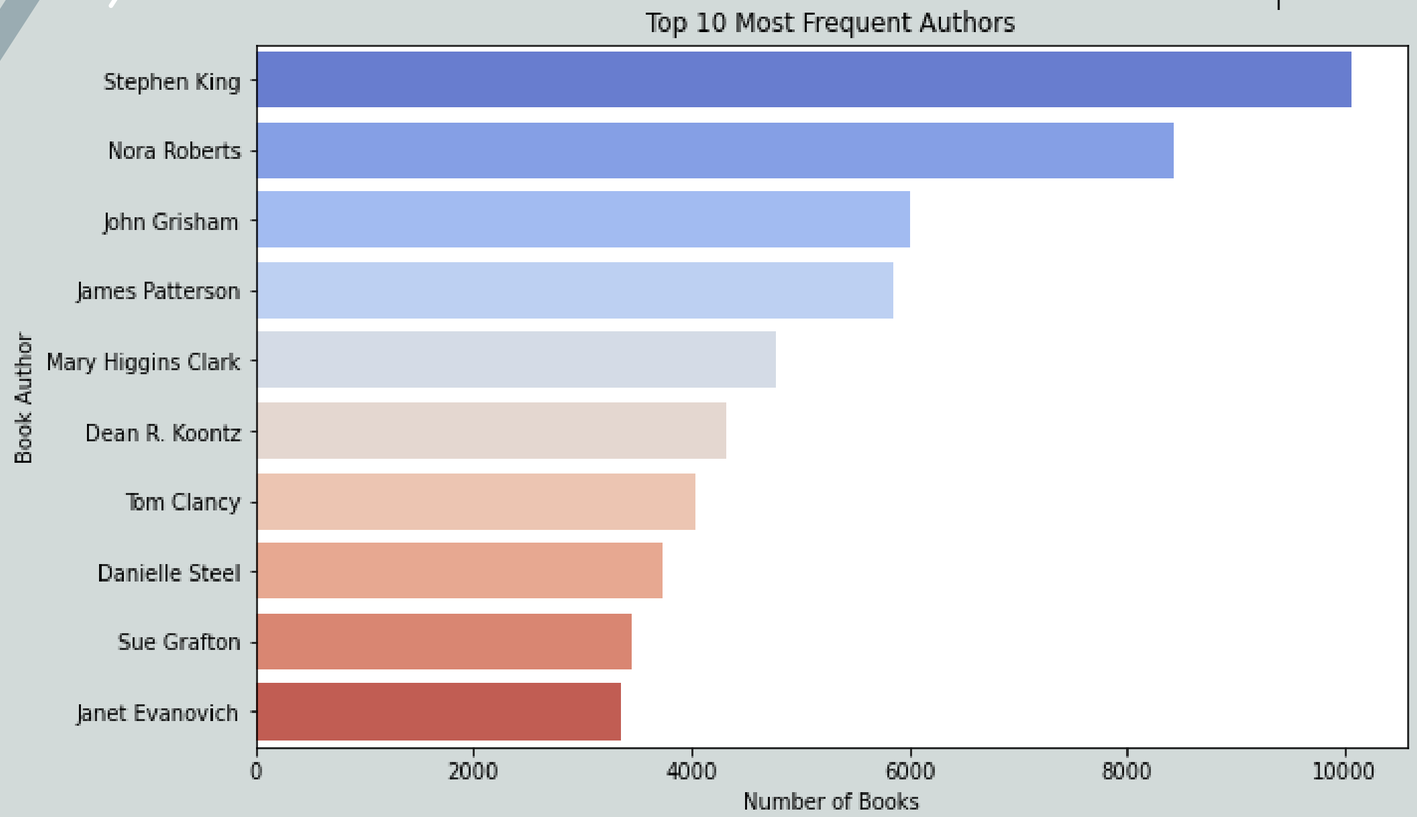
Enhance customer retention by offering relevant recommendations.

Improve user engagement by making book discovery easier

Improve recommendation accuracy through collaborative and content-based filtering

DATA OVERVIEW





Obtained in data preparation

Modelling

. Techniques used:
- Collaborative filtering (SVD)
- Content-based filtering

MODEL EVALUATİON

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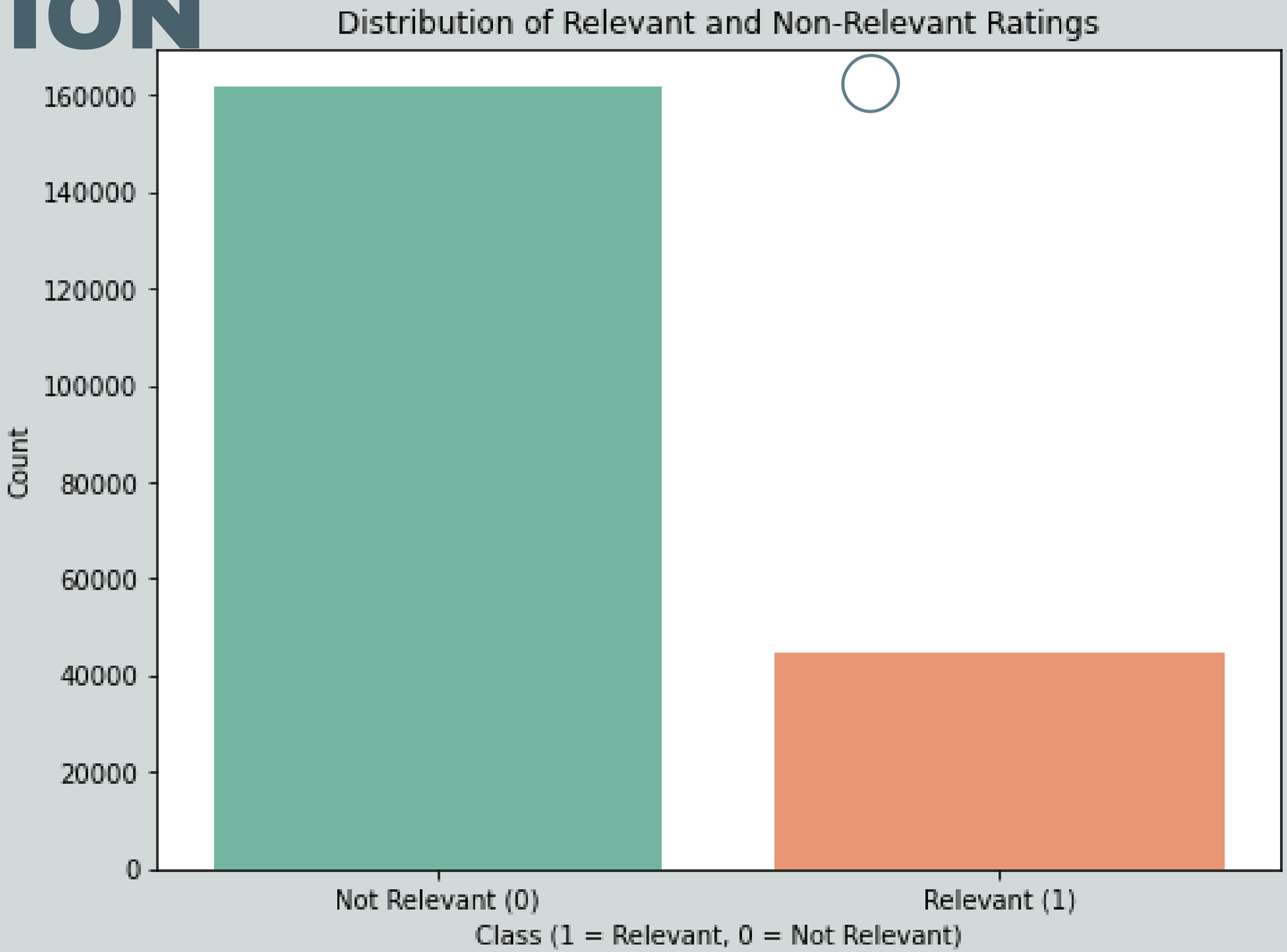

C0NCLÜSION

Based on the analysis I concluded that:

The project successfully developed a book recommendation system utilizing advanced machine learning techniques.

The implementation of Singular Value Decomposition (SVD) demonstrated effective personalized recommendations.

However, further improvements, such as hybrid filtering, real-time learning, and a user feedback loop, can enhance accuracy and usability.

Future work should focus on making the system more scalable and user-centric, ensuring a more dynamic and interactive experience for readers

RECOMMËNDATIONS

.Hybrid Approach: Combining collaborative filtering with content-based filtering can improve recommendation accuracy by leveraging both user behavior and book metadata.

Real-Time Updates: Implementing real-time learning would allow the model to continuously improve based on new user interactions.

Cold Start Problem: Addressing the challenge of new users with no interaction history by incorporating demographic-based recommendations.

User Feedback Loop: Enabling users to rate recommendations can refine future suggestions and improve model performance.

Scalability: Optimizing performance for handling large datasets with more efficient algorithms like Approximate Nearest Neighbors (ANN)

THANK YOU