

# GROUP 4 PROJECT

OCTOBER 9,  
2024

STAY TUNED...

# BOOK RECOMMENDATION SYSTEM



# OUR TEAM

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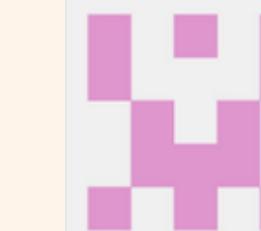
PETER MAINA



## Mau-Wambugu - Overview

Mau-Wambugu has 132 repositories available. Follow their code on GitHub.

[GitHub](#)



## stendewa - Overview

stendewa has 65 repositories available. Follow their code on GitHub.

[GitHub](#)



## lydiahsherry23 - Overview

lydiahsherry23 has 25 repositories available. Follow their code on GitHub.

[GitHub](#)



## mwikali24 - Overview

mwikali24 has 144 repositories available. Follow their code on GitHub.

[GitHub](#)



## Mr-PeterMaina - Overview

Mr-PeterMaina has 243 repositories available. Follow their code on GitHub.

[GitHub](#)

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OBJECTIVES

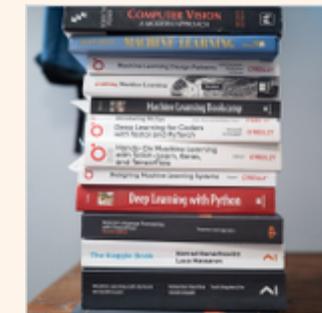
ANALYSIS  
QUESTIONS

Result

Conclussion

# INTRODUCTION

1. We want to develop a book recommendation system
2. Data Source: We used data obtained from Kaggle



**Book Recommendation Dataset**

Build state-of-the-art models for book recommendation system

[kaggle.com](https://www.kaggle.com)

## BUSINESS PROBLEM:

- To develop a recommendation system tailored to our users preference

## STAKEHOLDERS:

- Immediate Customers
- Marketing Team
- Data Scientists
- Book Authors
- Executives

## METHODOLOGY

- We focused on CRISP-DM methodology

# PROJECT OBJECTIVES

CREATE A BOOK RECOMMENDATION SYSTEM

IMPROVE SALES

IMPROVE CUSTOMER RETENTION

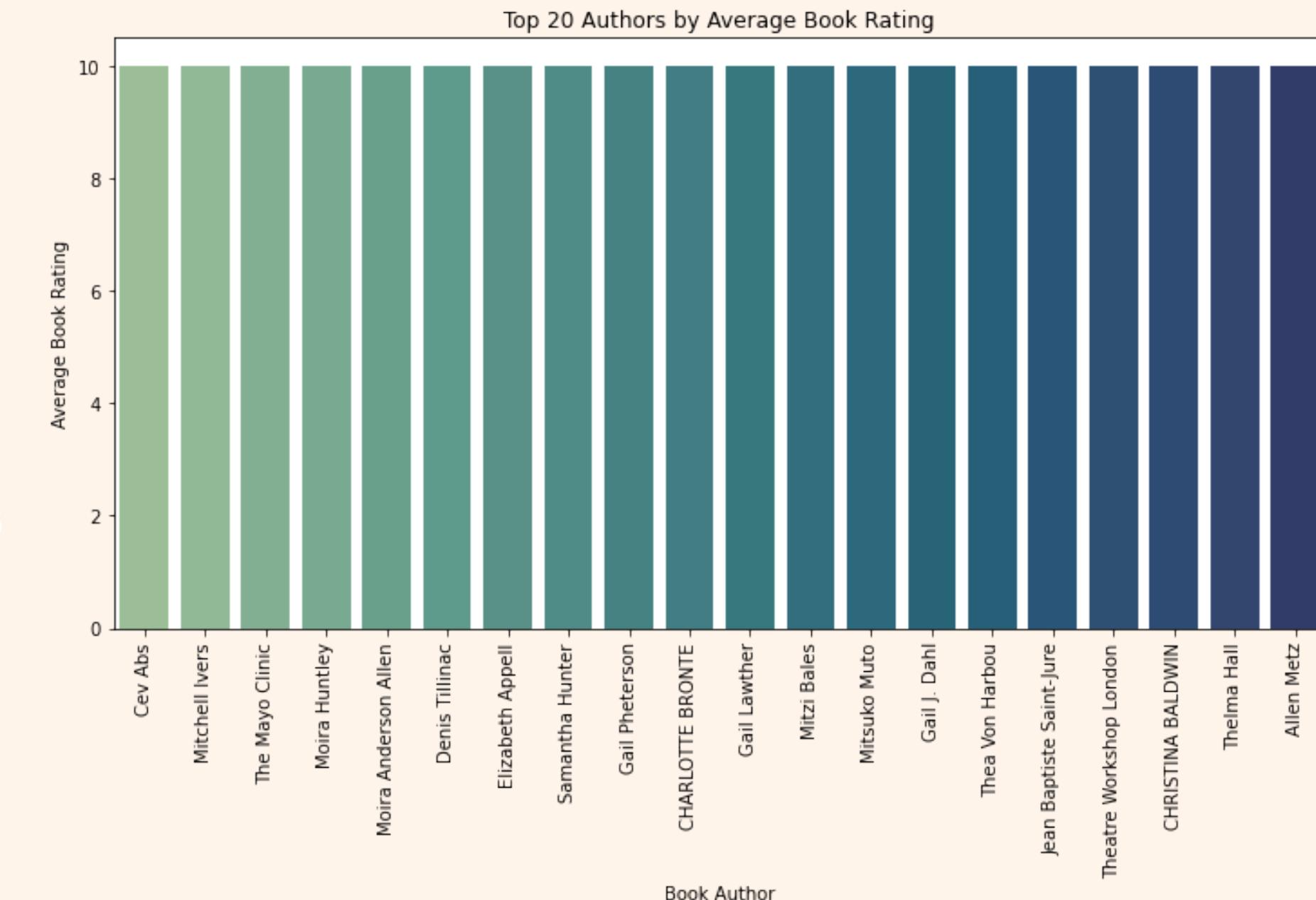
INCREASE CUSTOMER ENGAGEMENT

# PROJECT ANALYSIS QUESTIONS

Q1

Which authors consistently receive higher rating from users??

Initiatives

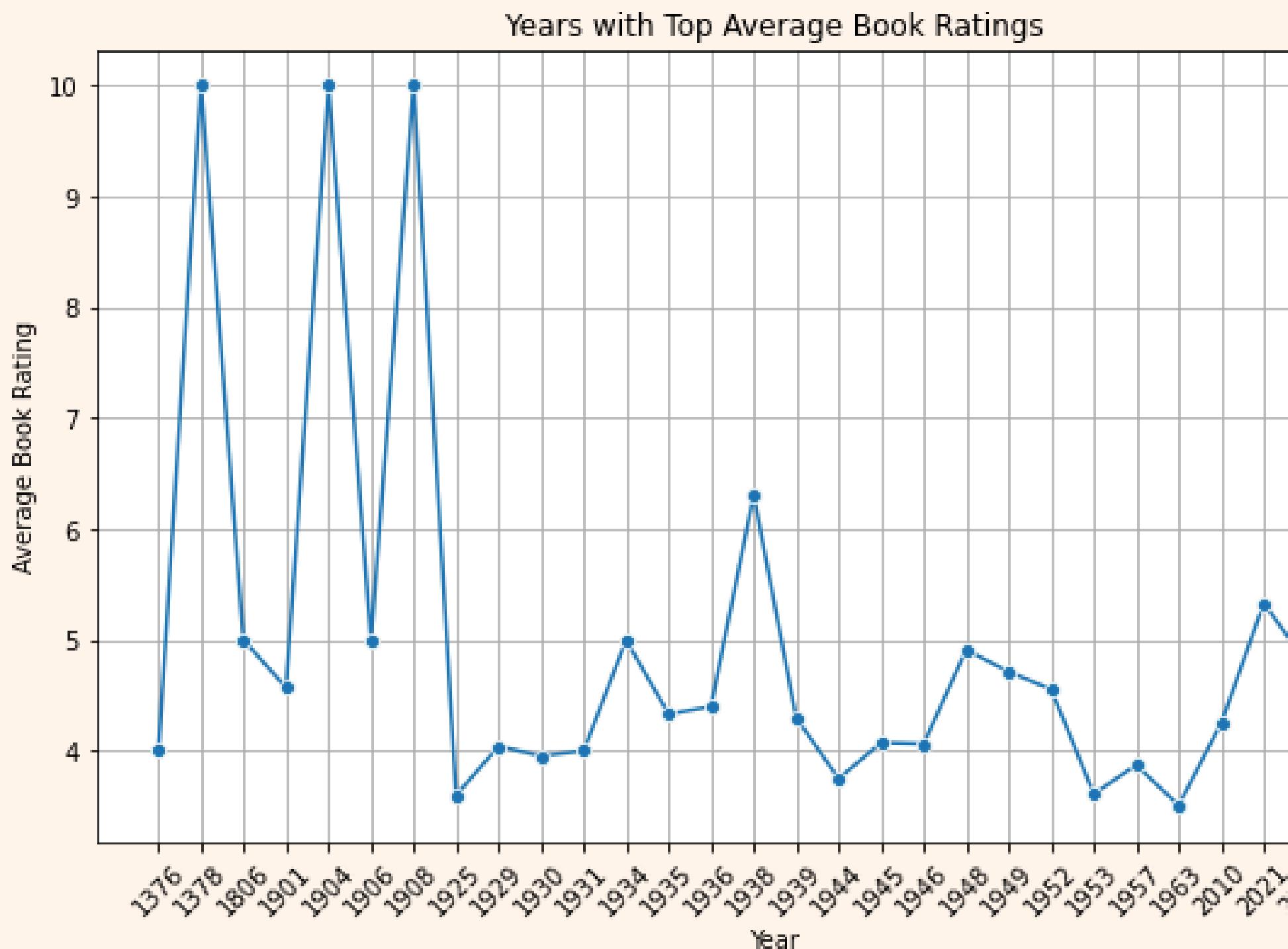


# PROJECT ANALYSIS QUESTIONS

Q2

How does year of publication affect the average rating of books??

Initiatives



# PROJECT ANALYSIS QUESTIONS

Q3

How accurate are the recommendation generated by the collaborative filtering model??

Initiatives

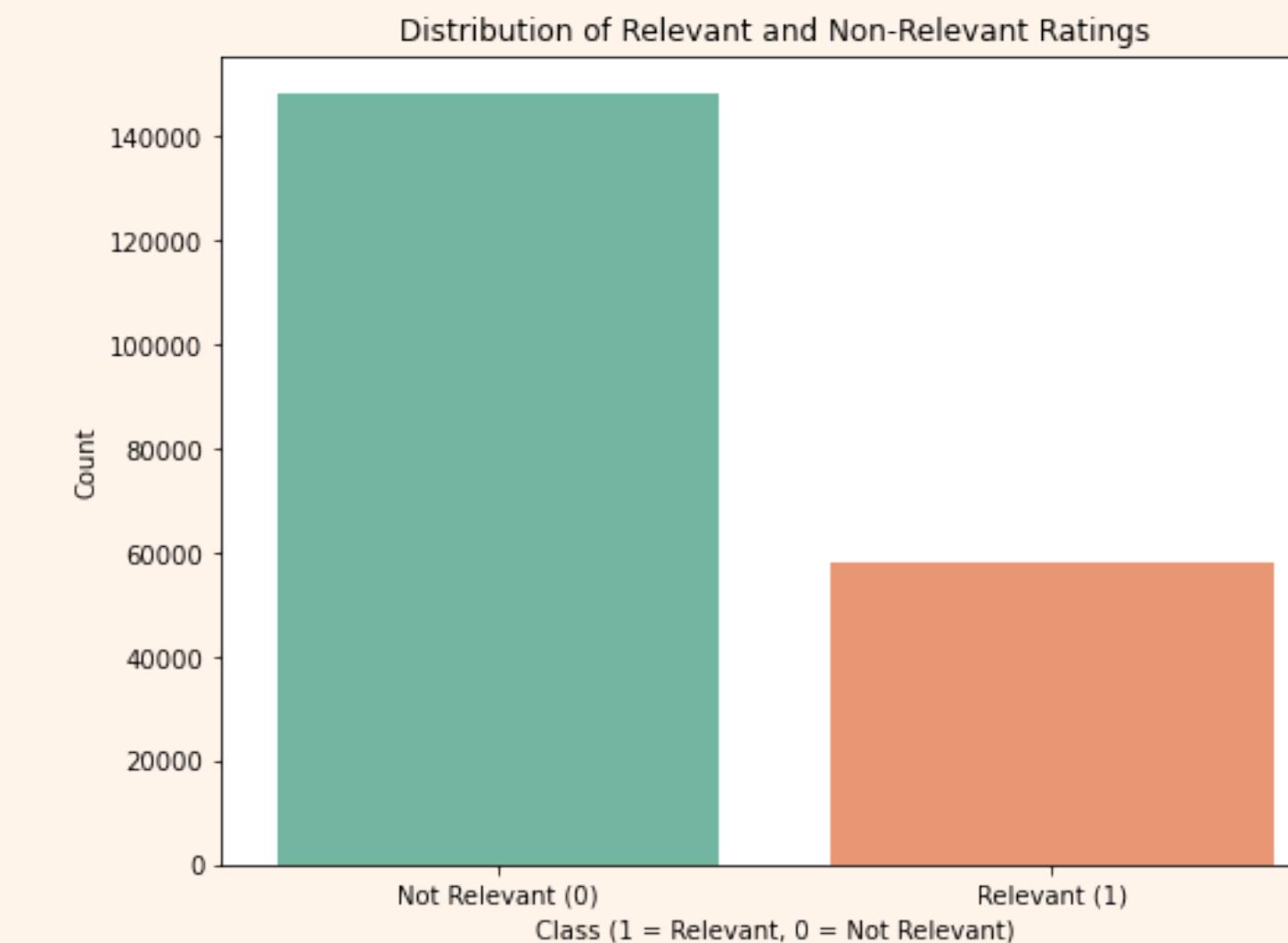
- RMSE: 3.4212
- MAE: 2.7467
- A lower RMSE and MAE indicates better performance.

# PROJECT ANALYSIS QUESTIONS

Q4

How does class imbalance in ratings affect performance of the recommendation model??

Initiatives



1. Precision score: 0.7942
2. Recall score: 0.0814
3. F1-Score: 0.1477
4. Accuracy: 0.7358

- Effectiveness of Collaborative Filtering
- Model Performance Evaluation
- User and Item-Based Collaborative Filtering
  - item-based approach

# CONCLUSION



# PROJECT RECOMMENDATIONS

Enhance Personalization and Feedback Mechanisms

Utilize Data for Targeted Marketing

To feature highly rated books prominently on the homepage and recommendation carousels

Use “Top-rated” or “Trending” labels to highlight highly rated books in marketing campaigns

# THANK YOU

