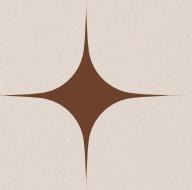


Book Recommendation System



Presentation by Group 9



OUR TEAM OF DATA SCIENTISTS

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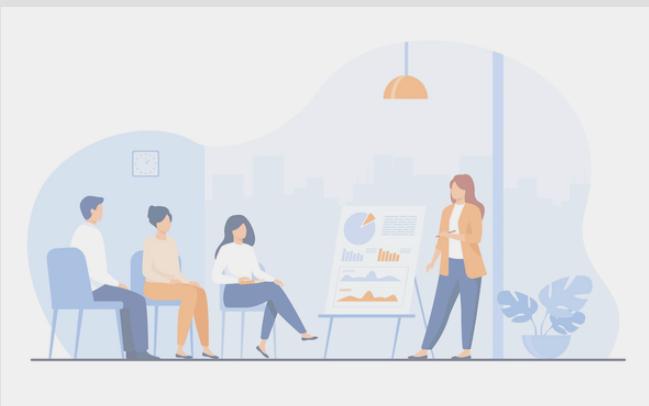
06

ISAAC MUTURI



INTRODUCTION

Recommendation systems are prevalent in enhancing search results and providing relevant items. This project aims to recommend the best books by analyzing user behaviors and delivering tailored suggestions.



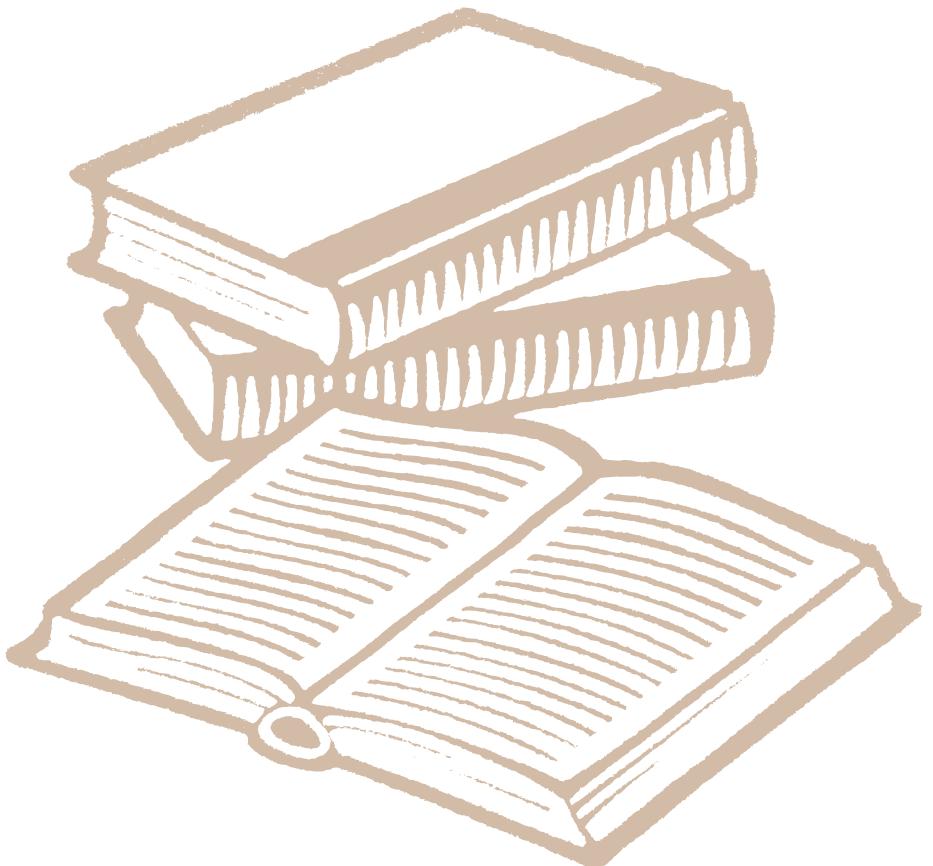


Book-Crossing aims to optimize their recommendation system to suggest different and new books, addressing a decrease in sales As Junior Data Scientists, tailor a recommendation system for personalized user experience .

PROBLEM STATEMENT



OBJECTIVES



- 01** *To analyze top book sales per city*
- 02** *To find the most popular books so as to infer genres*
- 03** *To find most popular authors*
- 04** *To find the voting frequency of the users*
- 05** *To develop a book recommendation system that provides personalized suggestions to users based on behaviors and preferences of similar users.*

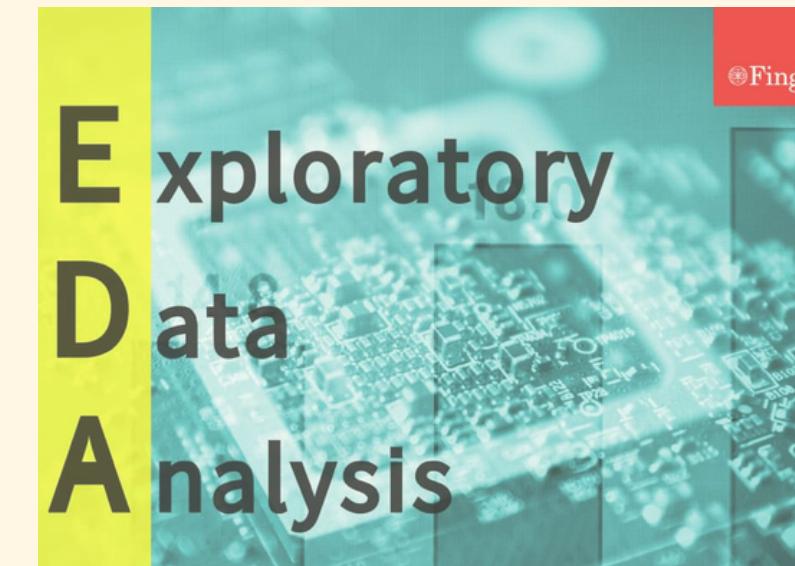
OVERVIEW

Descriptive Statistics

Data Visualization

Machine Learning

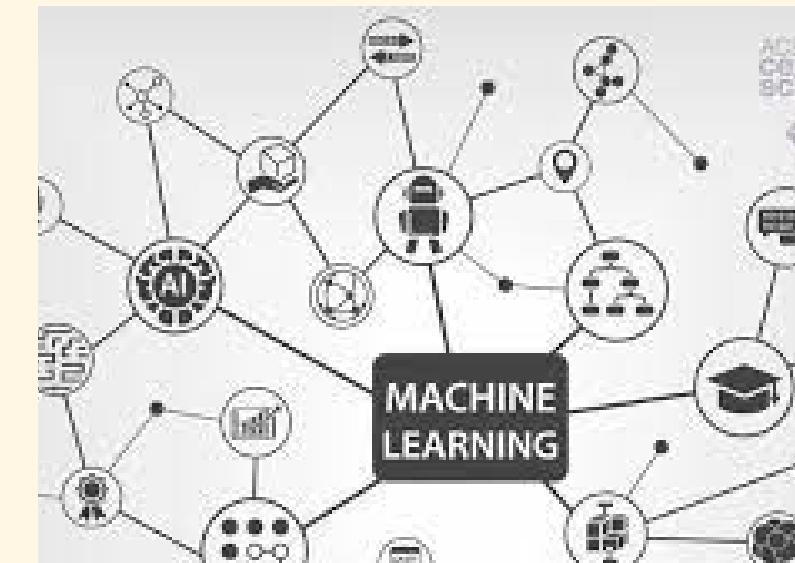
Recommendation system



Exploratory Data Analysis



Feature Selection



Modelling



Recommendation



IMPORTANT VARIABLES

RATINGS

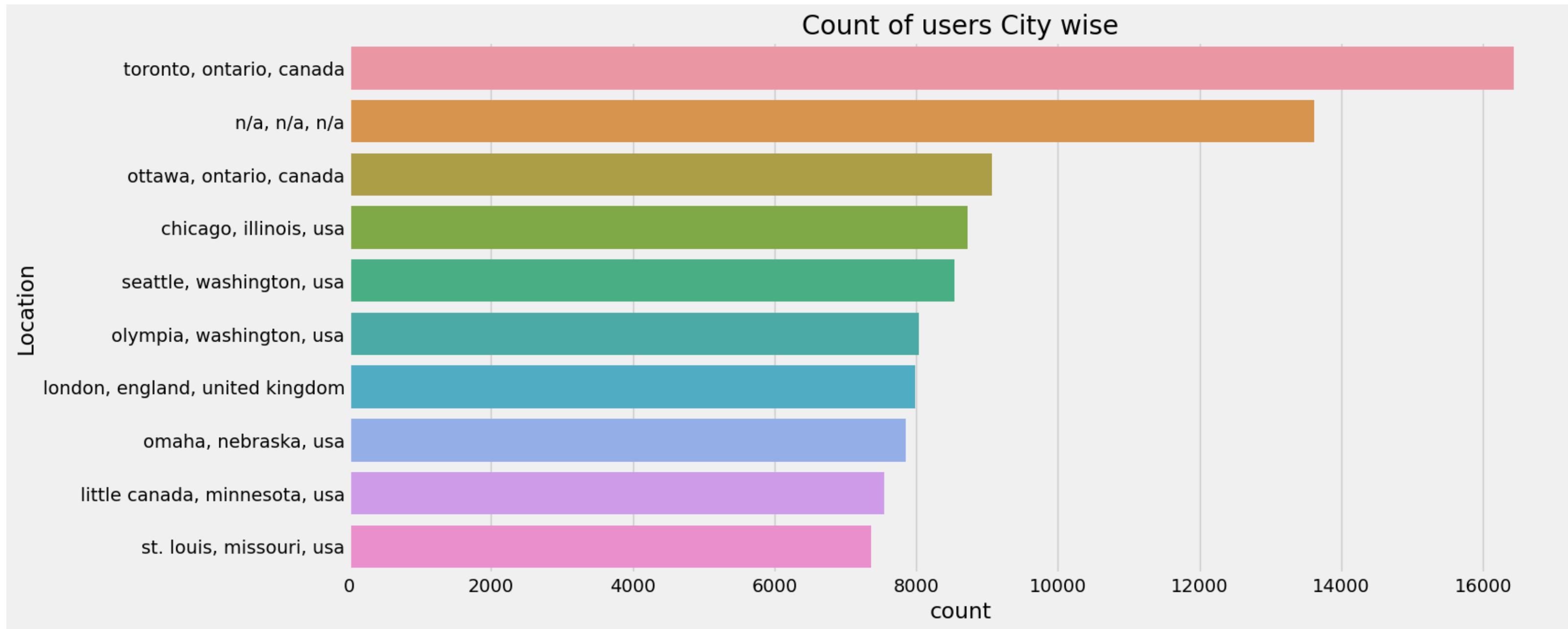
OTHER USERS

BOOK TITLES

AUTHORS

These are variables that will be used to build the recommendation system

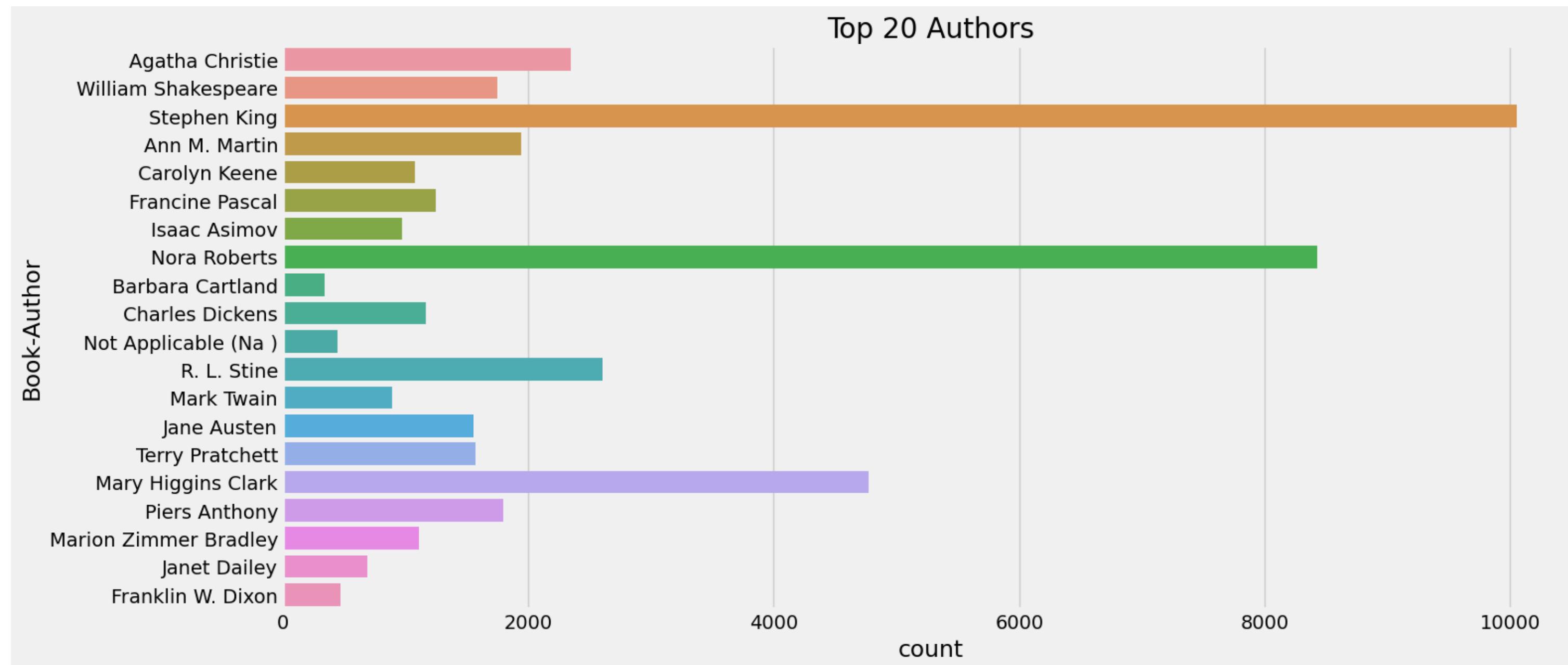
Visualization of City Book Purchases



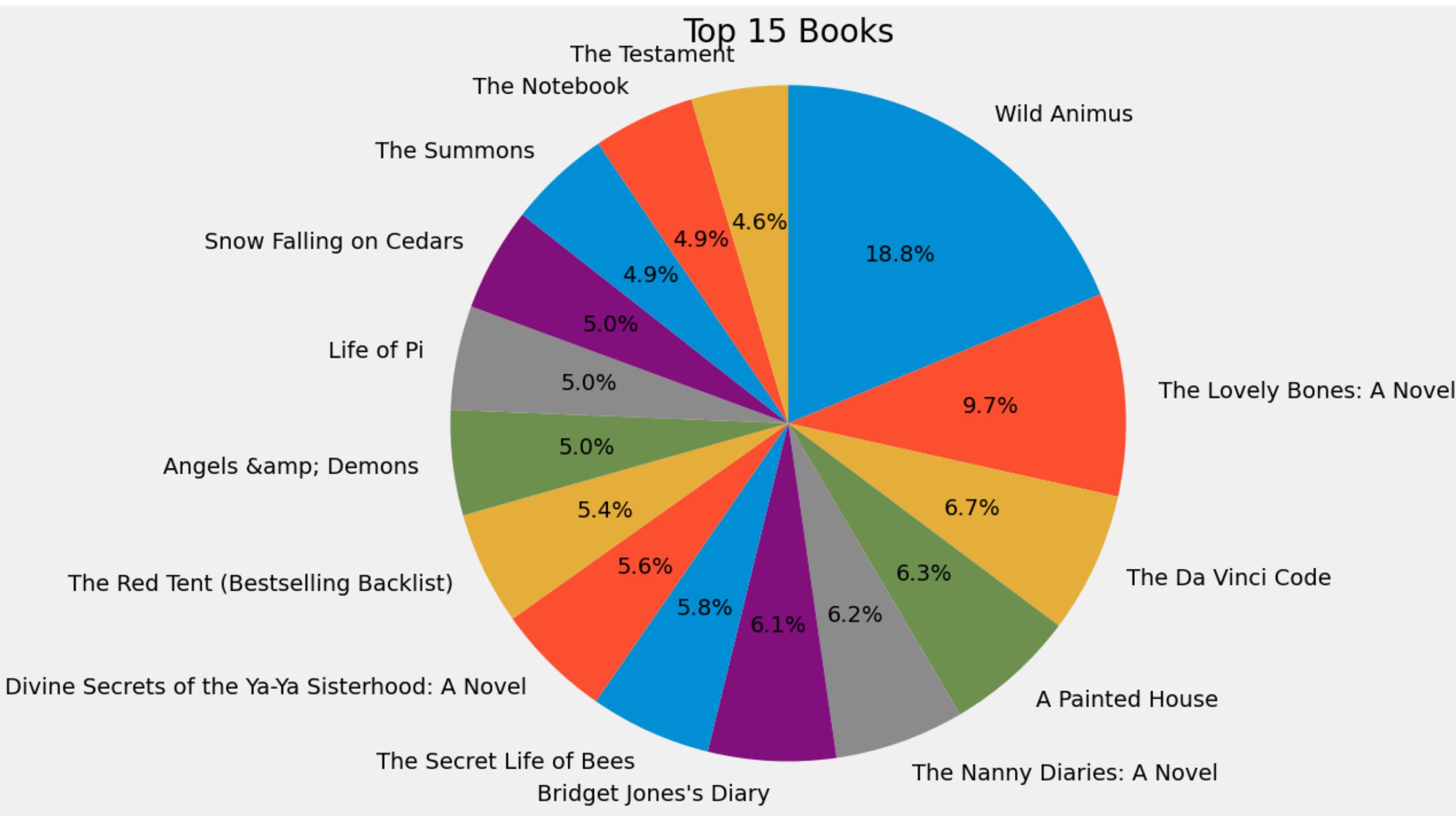
- *Toronto has the highest user count on the book community website.*
- *The count is influenced by Toronto's larger population compared to other cities.*
- *Other cities have similar user counts with a small margin between them.*
- *The "n/a" category represents users who chose to keep their locations private.*

Visualization of Popular Authors

- *Stephen King and Nora Roberts are the top authors in terms of reader engagement.*
- *The popularity of these authors may reflect the popularity of the genres they specialize in, such as Stephen King's expertise in horror and mystery novels.*



Visualization of Top 15 Actors



- The book 'Wild Animus' seems to be popular among readers with a relatively higher percentage.
- The popularity of the books can be attributed to factors such as the author or quality of stories
 - It would be helpful to stock the libraries with similar contents

BEST MODEL : OPTIMIZED SVD MODEL

success metric: error close 0

our error range: 3 to 4

verdict: moderately accurate



Users are able to discover new books that they may not have been aware of or considered before , by analyzing similarities between users SVD can recommend most rated books among similar users

IMPLICATION



the error metric is interpretable with close to zero being perfect, this has the lowest error of 3

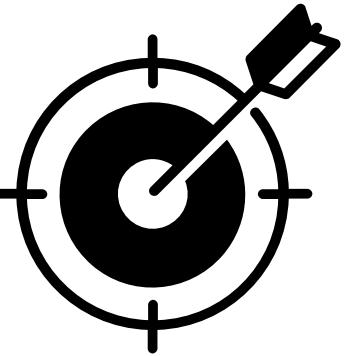
JUSTIFICATION



personalized recommendations on new users is not accurate due to lack of initial data stemming from their interaction with the website

LIMITATION

CONCLUSION



Our model performed well
with an error close to 0



Genres and author popularity
greatly influence suggestions



The model is however unable
to completely resolve cold
start problem

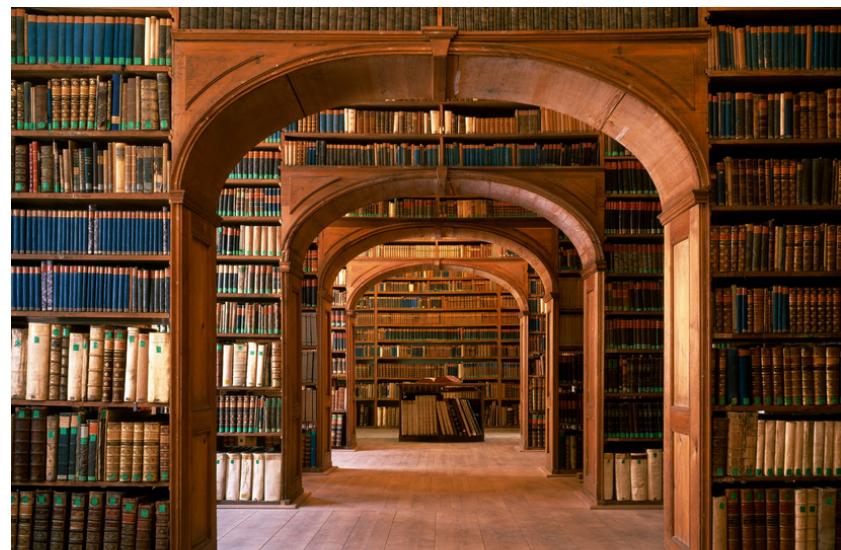


More user data is needed to
give relevant recommendation

Recommendations



*Encourage user rating
by implementing a
friendly rating system*



*stock book repository
with widely popular
books and authors*



*Promote popular
books by prominently
displaying them and
their reviews*

*increase popular
genre selection of
books*



*showcase books with
higher user
interactions*

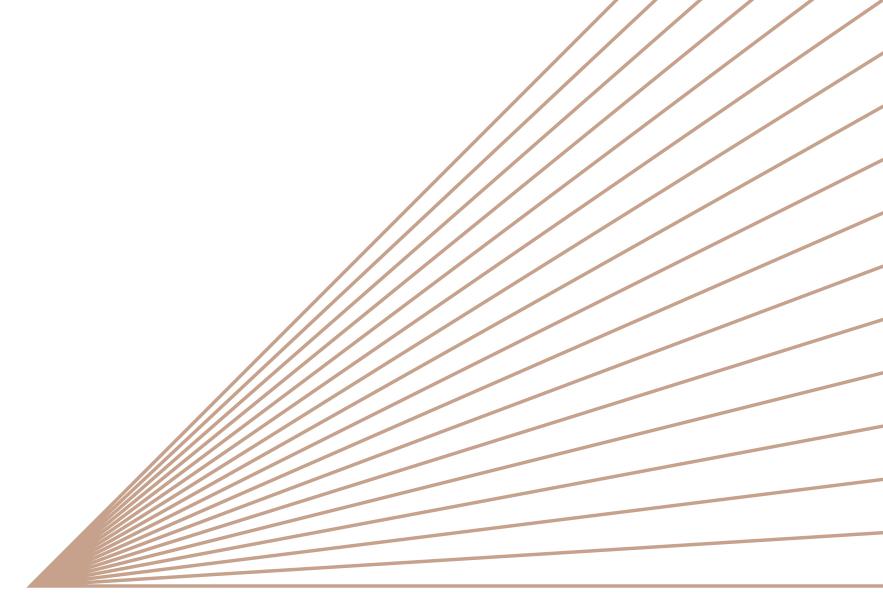


*personalize book
recommendation
based on location of
similar users*



DEPLOYED CLIP

this was deployed lets see some of the recommendations and how relevant they are: take note of authors and book titles

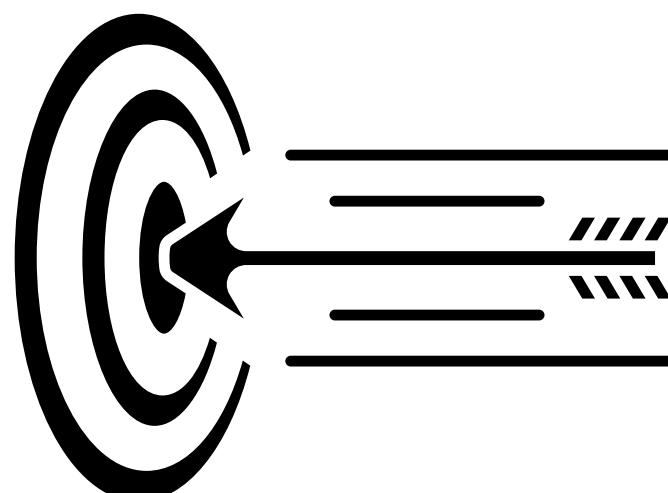


Ongoing... Ronaldnyagaka DATA STRUCTURES... Python enumerate()... CIC ASSET MANAG... CIC ASSET MANAG... Zamara CRM Data Science FT 04... W3 M

The screenshot shows a user interface for a book recommendation system. At the top, there is a search bar containing the text "1st to Die: A Novel" and a green "Recommend" button. Below this, the heading "Recommended Books:" is displayed. Five book covers are shown in a row:

- 1st to Die: A Novel by James Patterson
- 2nd Chance by James Patterson
- Roses Are Red (Alex Cross Novels) by James Patterson
- Violets Are Blue by James Patterson
- Kiss the Girls by James Patterson

the novel was 1st to die by James patterson, the recommendation are books by the same author same genre and not that '2nd chance' is the part 2 in the book series of 1st to Die



accuracy has hit the mark !



adios!