Why Recommendation system so important?

- **35%** of **Amazon** revenue is generated by RS
- **75%** of what users watch on **Netflix**'s RS
- **Spotify** Users increase by **33%** thanks to their RS
- **YouTube**'s RS accounted for **60%** of video clicks.

Source: McKinsey & Company

TABLE OF CONTENTS

01
Business
Problems

02
EDA

03
Methodology

04
RESULTs

05
Conclusion

06
Implementation

01
Business Problems
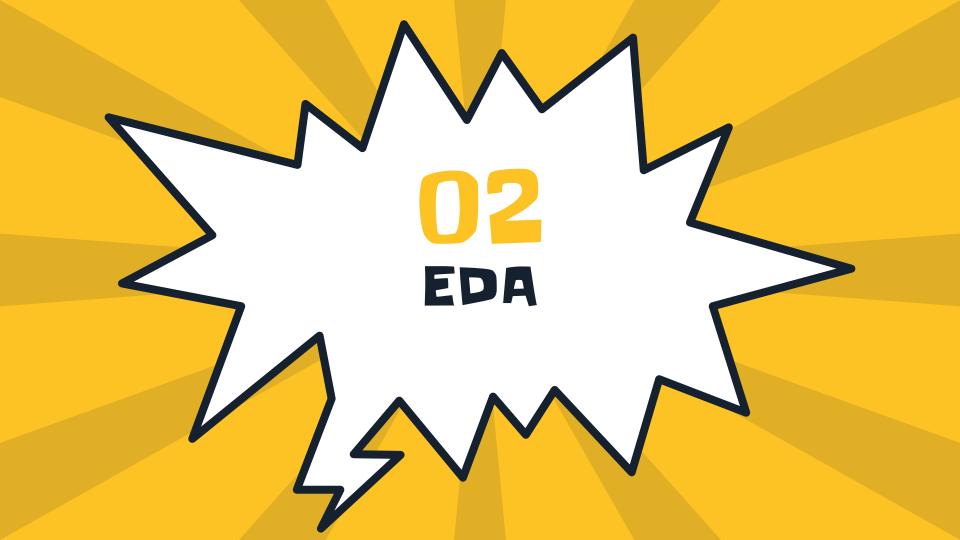
- Expanding the market
- Introducing new products
- Cross-Genres

amazon books

DATA retrieved from Goodreads API

- Over 250000 Fantasy Books
- Over 85000 Comics
- Over 60 million reviews from over 100000 users
- Ratings scale from 1 to 5

★★★★★ Amazing!
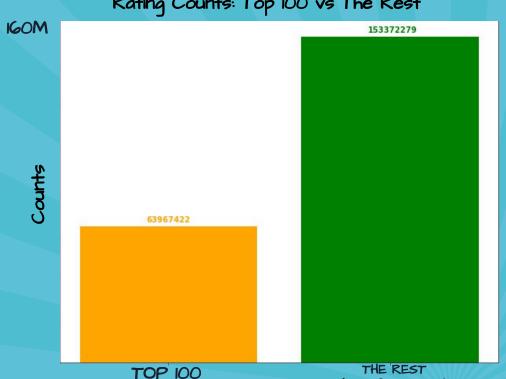★★★★☆ Really liked it
★★★☆☆ Liked it
★★☆☆☆ Ok
★☆☆☆☆ Didn't like it

The Higher rated books, The higher rating counts

Rating Counts: Top 100 vs The Rest

160M

Counts

153372279

63967422

TOP 100

THE REST
(out of 258485)

Top 3 rating counts

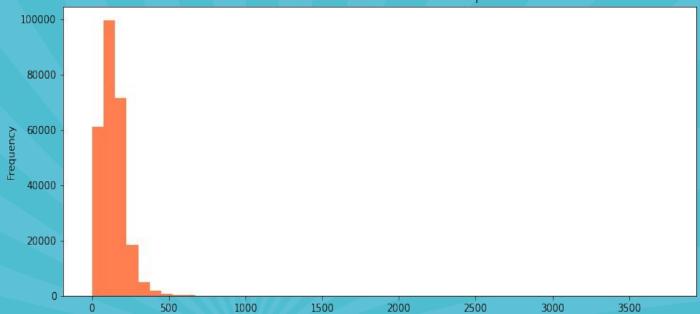|	Counts (millions)	Avg Rating
Harry Potter and the Sorcerer's Stone	4.77	4.45
Twilight	3.94	3.57
The Hobbit	2.10	4.25

Exploring Book descriptions
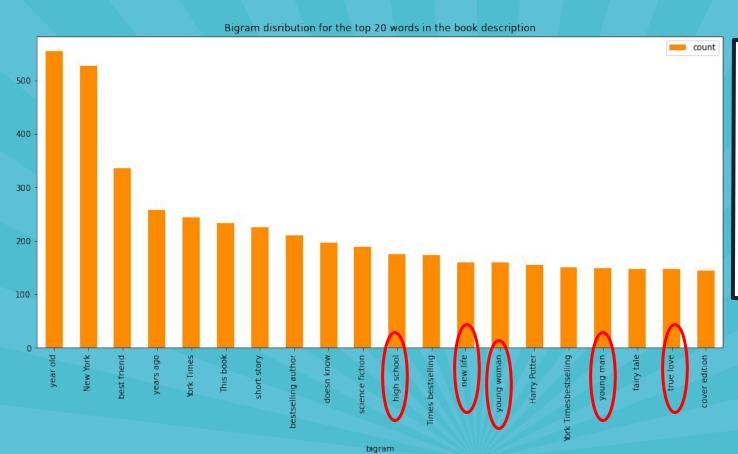
Word Counts
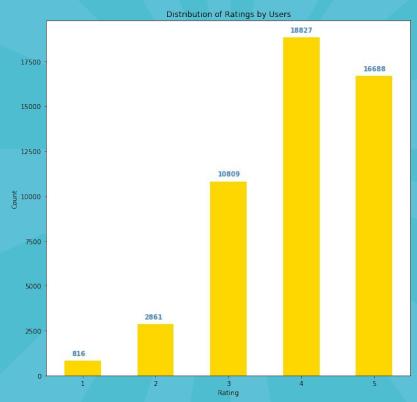
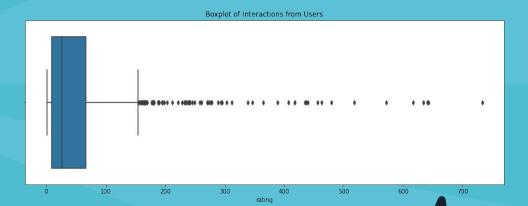The average word count is around 200 words.
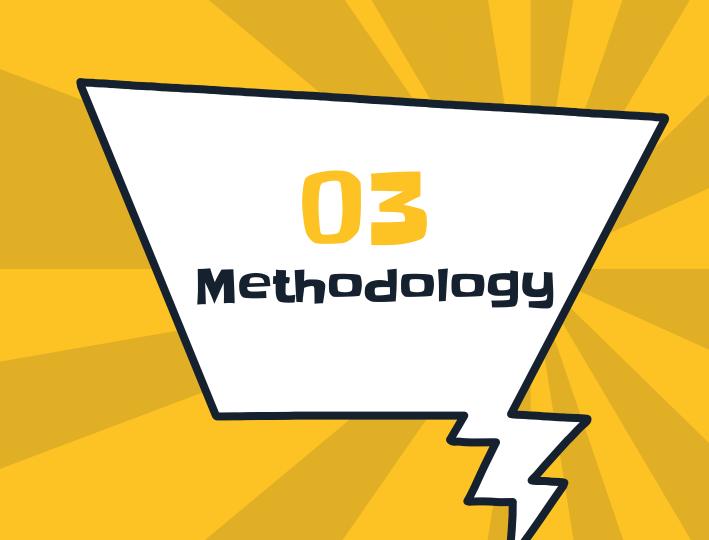
Word Count Distribution for book descriptions

Exploring Book descriptions

Bigram disribution for the top 20 words in the book description

Bigram

- High school
- New life
- Young women
- Young men
- True love
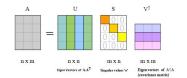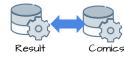
Results from RMSE suggests to choose **SVD** as a final model

	RMSE
ALS	1.093
KNNBasic	1.002
KNNBaseline	0.886
SVD	0.837
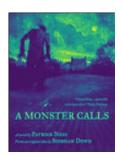
Let's make some recommendations!
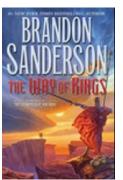
Fantasy

Comics

Next Steps!!

01 Larger Dataset

02 Implement Neural Network

03 More distinctive group of datasets

04 A/B testing to evaluate models

WEB APP

goodreads

Books Recommender

Hi, there! My name is Rami. I create this web app to introduce fantasy book lovers to the awesome world of comic books.

Hi, Friends! Please take some time to rate these following books

Visit!
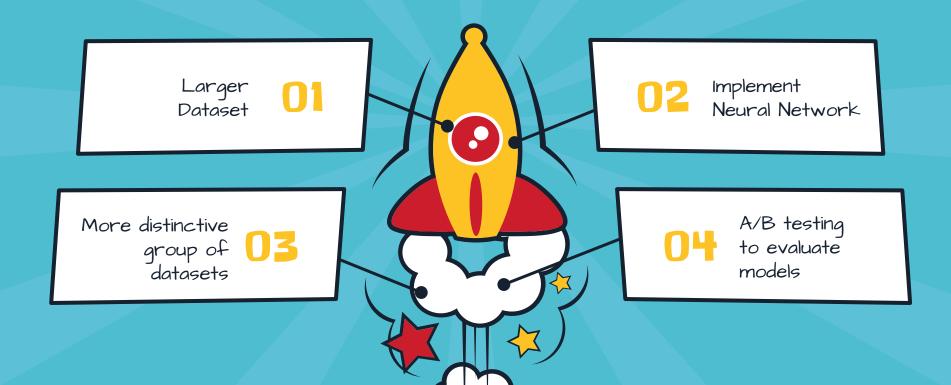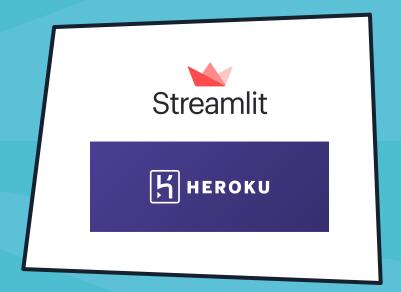
gr-comic-recommendation.herokuapp.com

Thanks!

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 github.com/ramilchai