



Haven't we all thought of this question!
I am a data scientist and I can help find answer! Let me take you through my process ... come along!



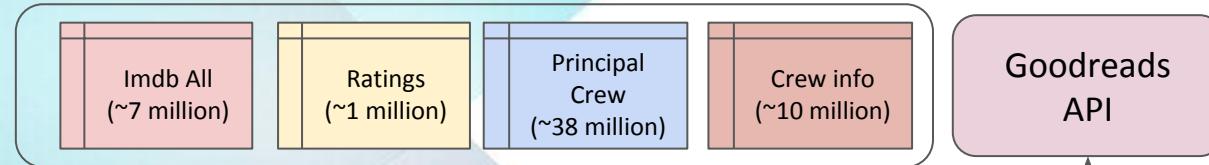
Movie adaptation or Book: Which is better received?



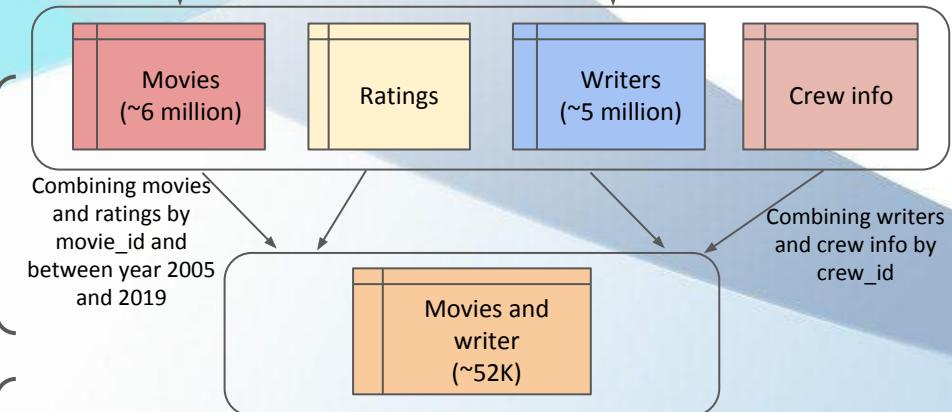
- Janki Chauhan

Data Pipeline

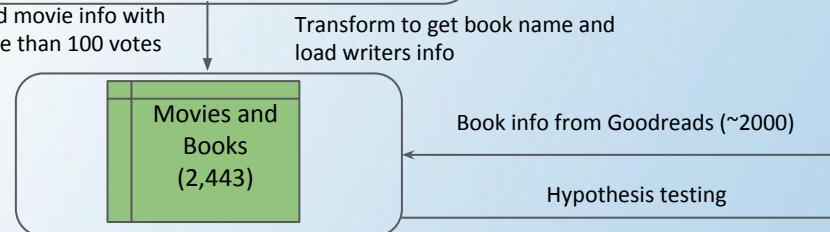
Extraction



Transformation



Load



Exploratory Data Analysis



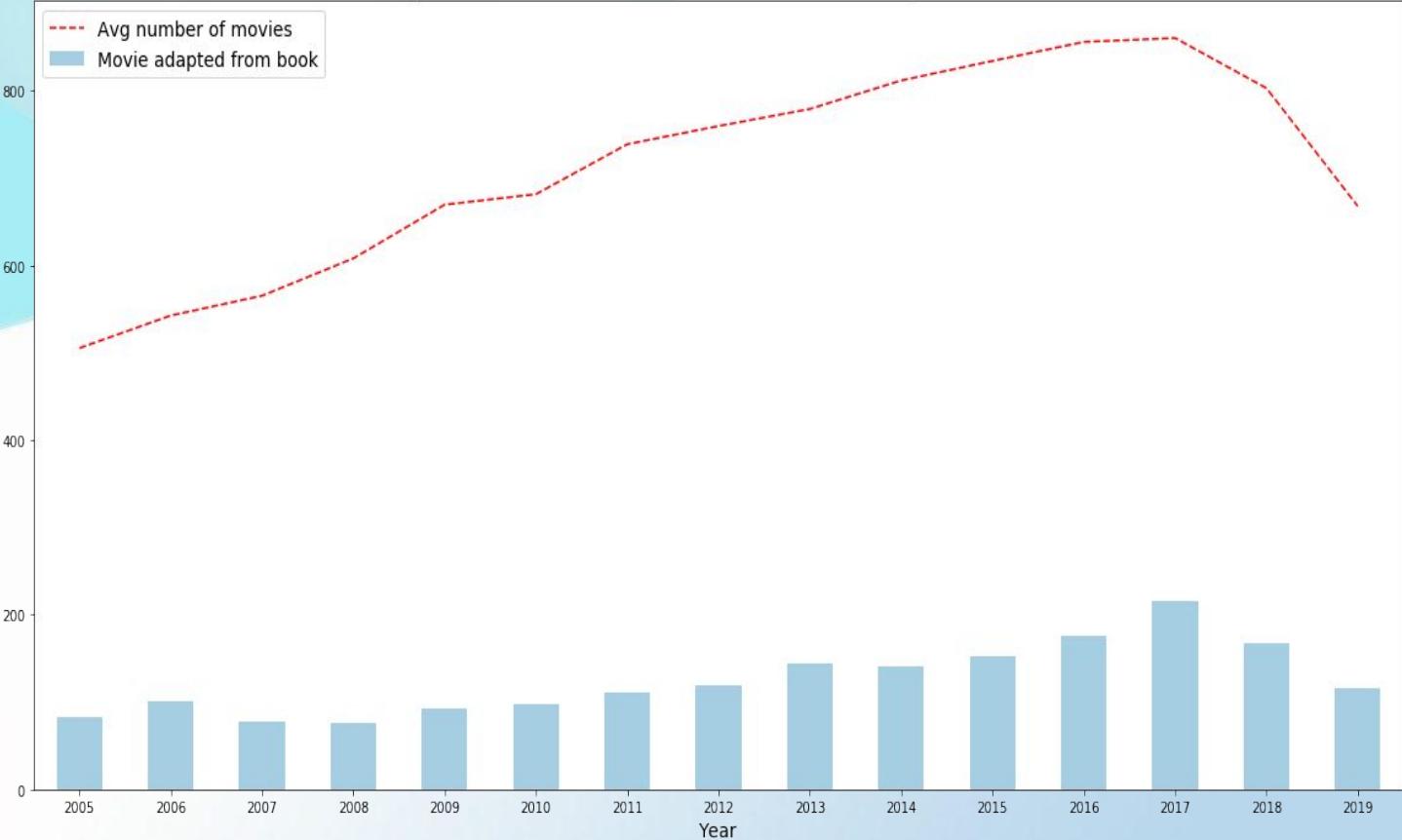
Null Hypothesis(H_0) vs Alternate Hypothesis(H_1)



Exploratory Data Analysis



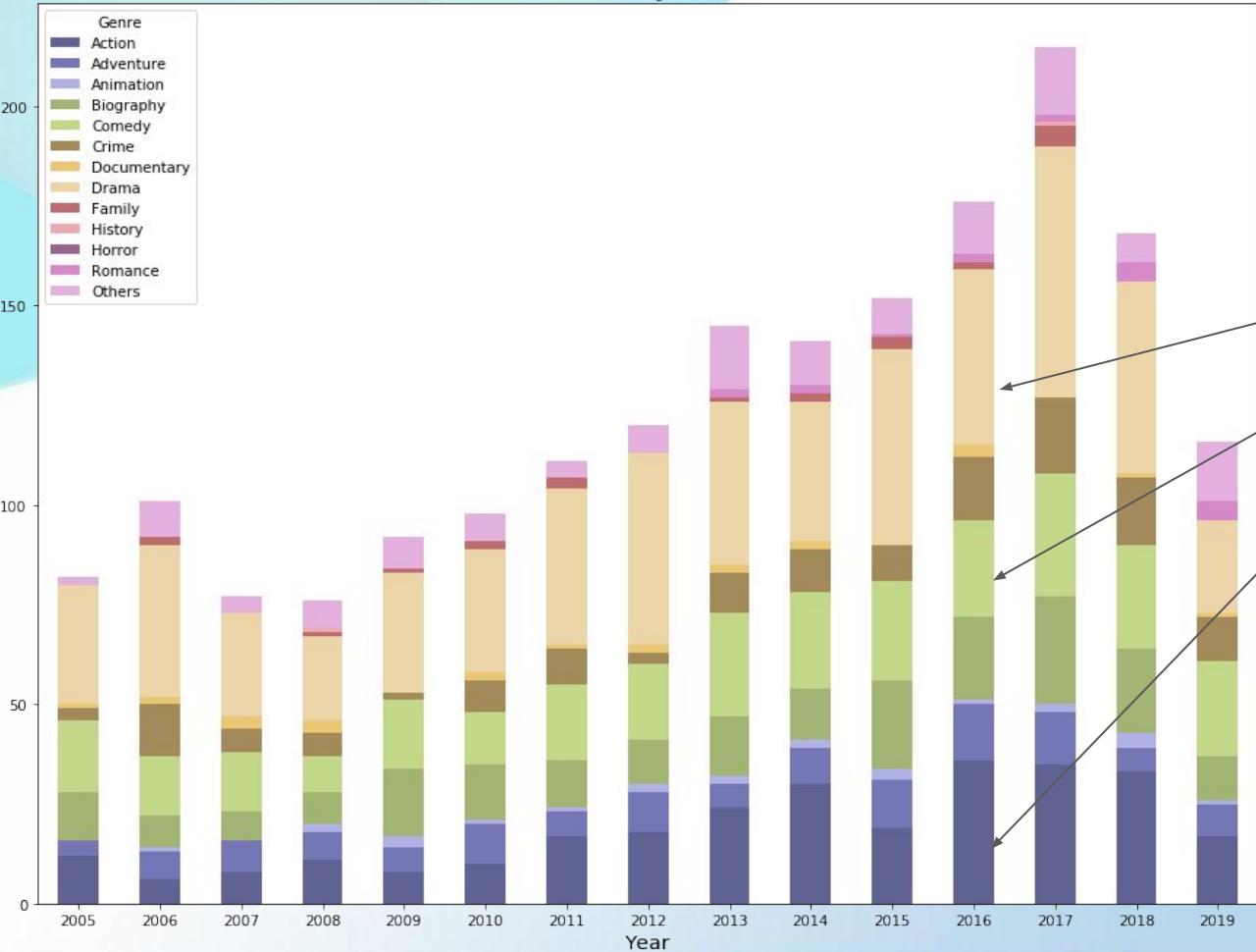
Avg of number of movies vs number of Adapted movies



- How many movies were adapted from books?



Movies by Genre

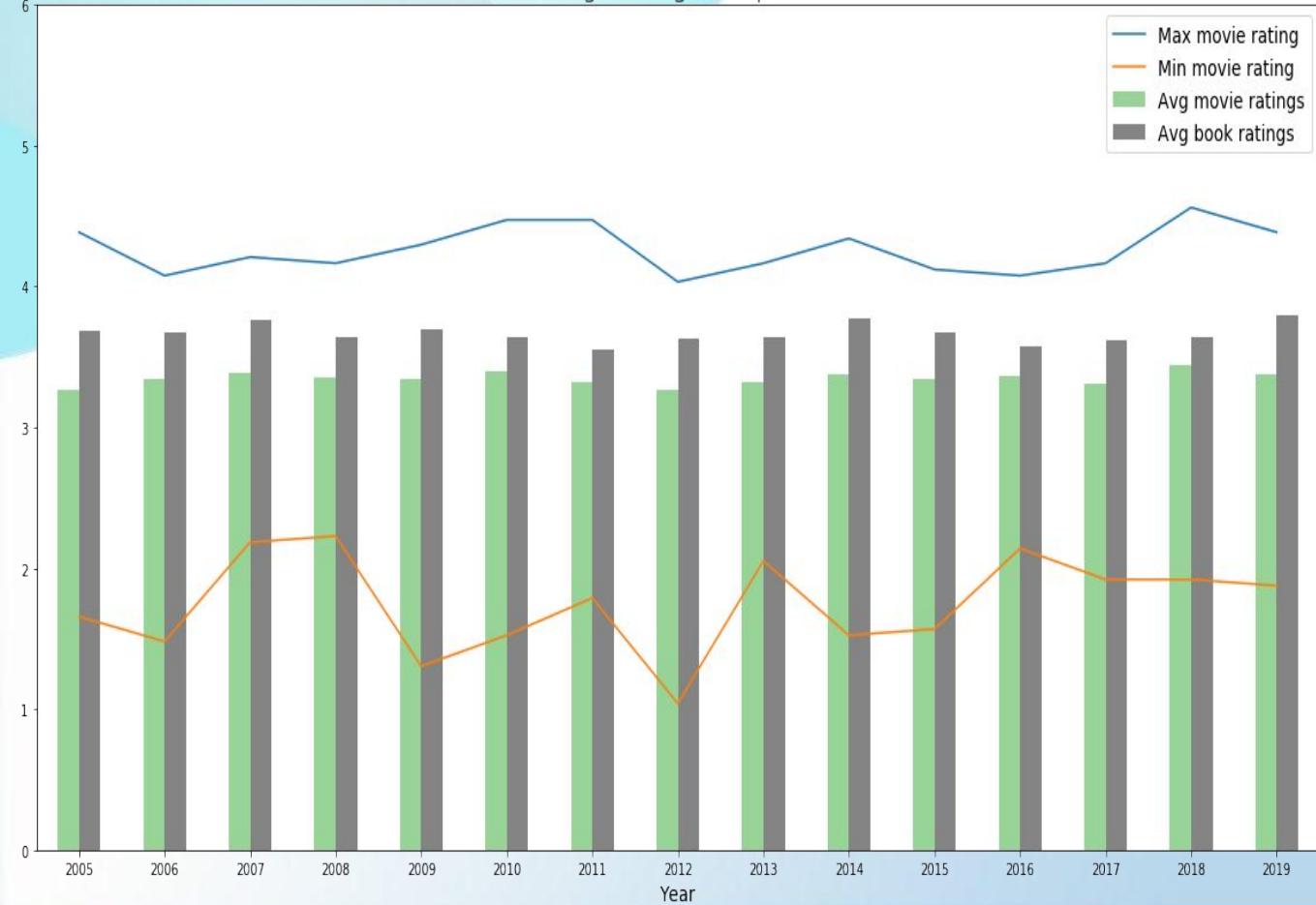


- What are most common genres for these movies?

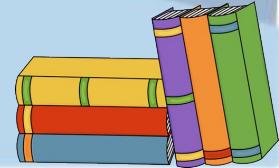
Top genres:

1. Drama
2. Comedy
3. Action

Average ratings comparison



- How do user ratings compare for book and movies?
- Books on an average receive better ratings than movies!



Hypothesis testing

"Do movies that are adapted from books receive similar or better ratings compared to the books"

- Null Hypothesis: Books have same or less ratings compared to movie adaptation
- Alternate Hypothesis: Books receive better ratings compare to movie adaptation.

t-test

- $\alpha : 0.05$
- p-value : 0.00013

Conclusion: Books receive better ratings compare to respective movie adaptation.

"Movie ratings are independent of what they are based on"

- Null Hypothesis: Adapted movies receive better ratings than original screenplay.
- Alternate Hypothesis: Movie ratings are independent of whether it was adapted or original.

t-test

- $\alpha : 0.05$
- p-value < 0.0001

Conclusion: Movie ratings are independent of what they are based on.

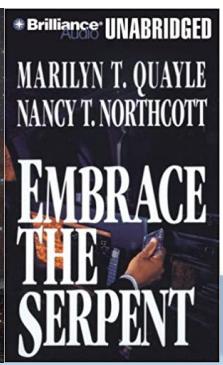
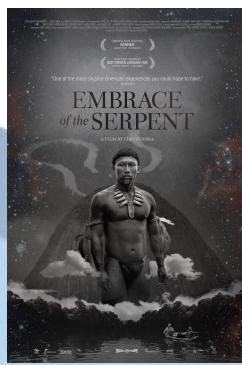
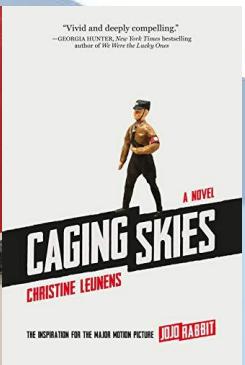
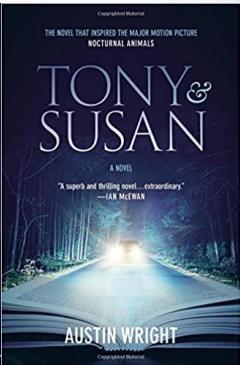




Fun Facts

Movie	Book	Book_ratings	normalize_movie_ratings
Nocturnal Animals	Tony and Susan	3.15	3.900
Jojo Rabbit	Caging Skies	3.08	4.076
Embrace of the Serpent	Embrace of the Serpent	3.00	4.076

- Outliers: Movies with better ratings than the books

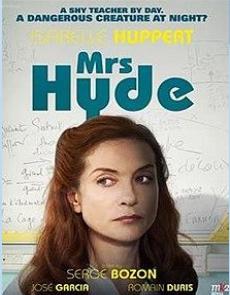
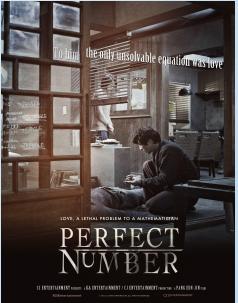
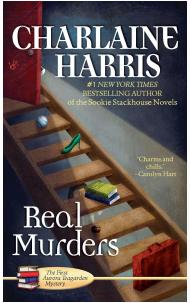




Fun Facts

Author	Movie
Charlaine Harris	Aurora Teagarden Mystery: A Bone to Pick
Charlaine Harris	Real Murders: An Aurora Teagarden Mystery
Jack Kirby	Iron Man 3
Jack Kirby	Avengers: Infinity War
Jane Austen	From Prada to Nada
Jane Austen	Love & Friendship
Keigo Higashino	Perfect Number
Keigo Higashino	The Miracles of the Namiya General Store
Robert Louis Stevenson	Dr. Jekyll and Mr. Hyde
Robert Louis Stevenson	Mrs. Hyde
Stan Lee	Avengers: Infinity War
Stan Lee	Iron Man 3
Stephen King	It
Stephen King	It Chapter Two

- Top 5 authors who have most books adapted into movies
- Goodreads has 90 million registered users, while imdb has 83 million registered user; though Imdb has been around longer(since 1990).
- Both Goodreads and Imdb are Amazon subsidiaries.



Future Analysis

- It will great to see the effect of release of a movie on the sales and number of readers of the book.
- It would be interesting to compare the revenue for movies that were adapted from books vs original screenplay.
- Looking at the graphs, why is there a dip in number of movies for 2018 and 2019? Was it because of #MeToo movement?

AMA

