



Analysis of the Movie Industry



Module 1 - Final Project
Online-DS-PT-032020
Kevin Machine



Problem Statement:

What types of films are currently doing the best at the box office?

Business Value



Seasonality & Profit:

The seasonality of profits will help in allocating resources accordingly



Diversity in Filmmaking:

The popularity of various genres of foreign language films helps in quantifying the wider market



Studios & Production Budgets:

This is crucial in doing a cost and benefit analysis



Methodology



Used dataset imported from IMDB, Box Office Mojo, Rotten Tomatoes and TheMovieDB.org



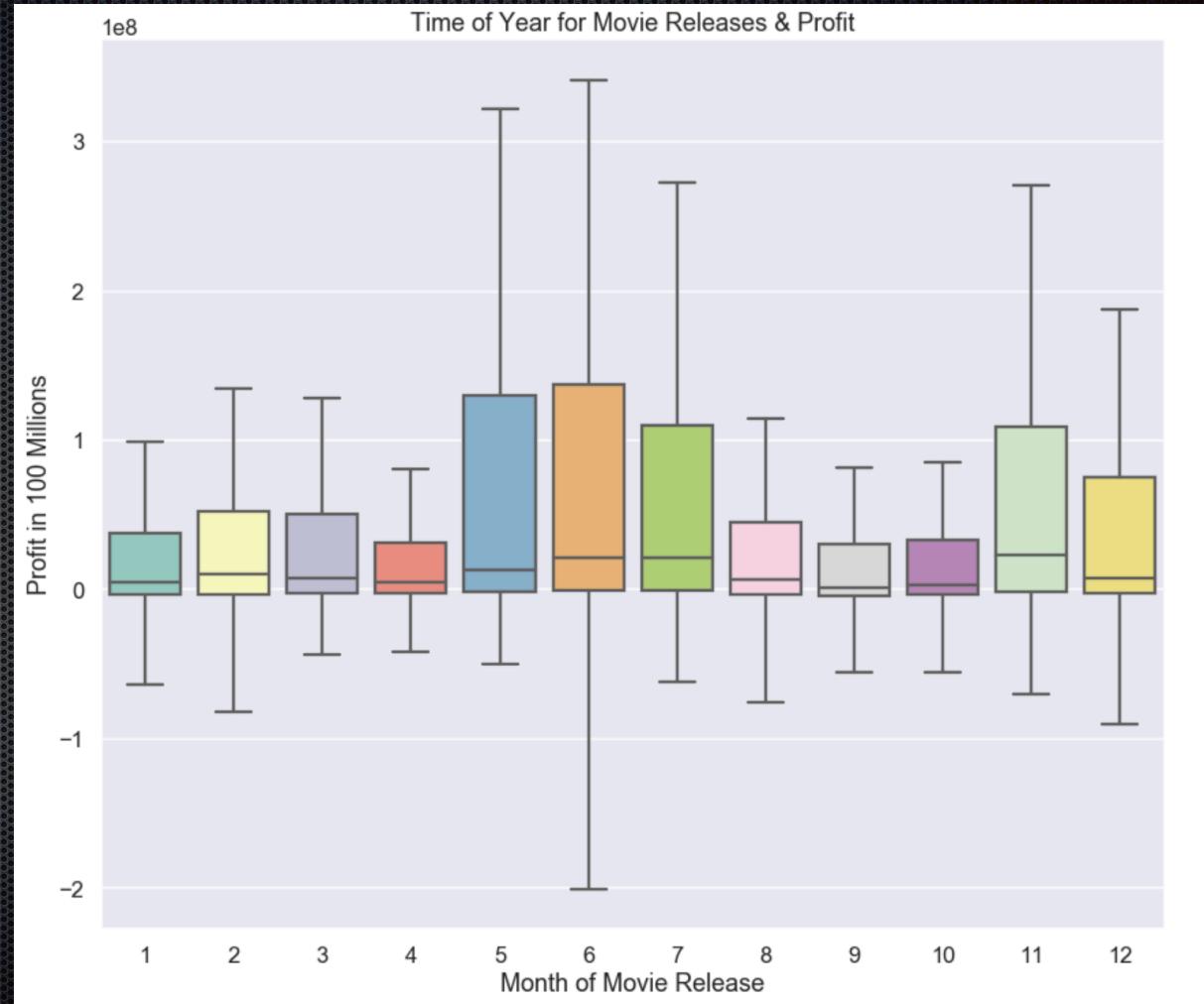
Created new columns and merged columns in dataset to get insight on profits, genres, movie language and release months



Review dataset to see historical studio information to help in determining number of movies produced and at what cost

Findings

- Seasonality of movie profits



Source for Budget, Gross Revenue and Release Date: www.the-numbers.com

Source for Original Language: www.themoviedb.org

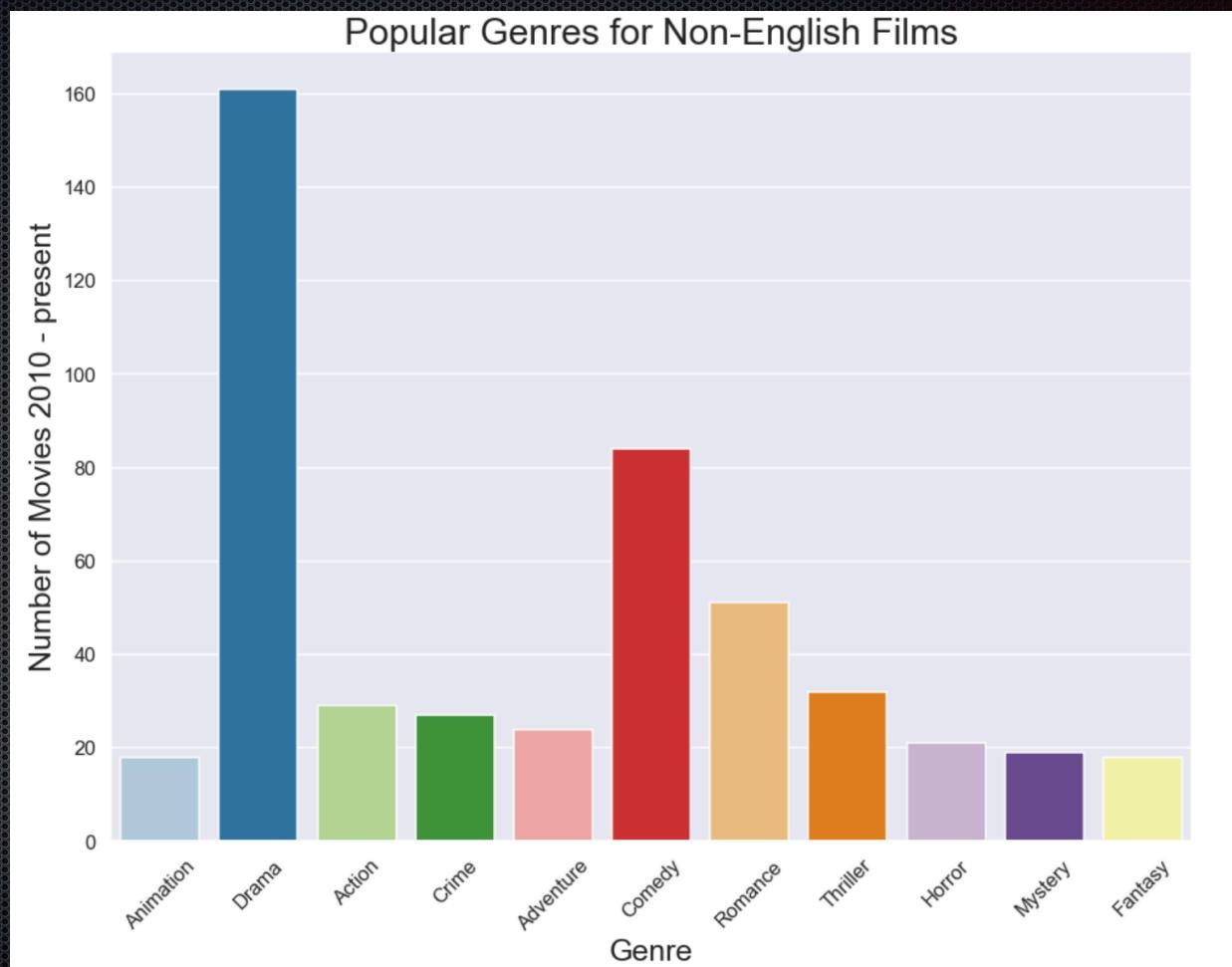


Findings

- Popular genres for foreign language films

*Present - As of end 2019

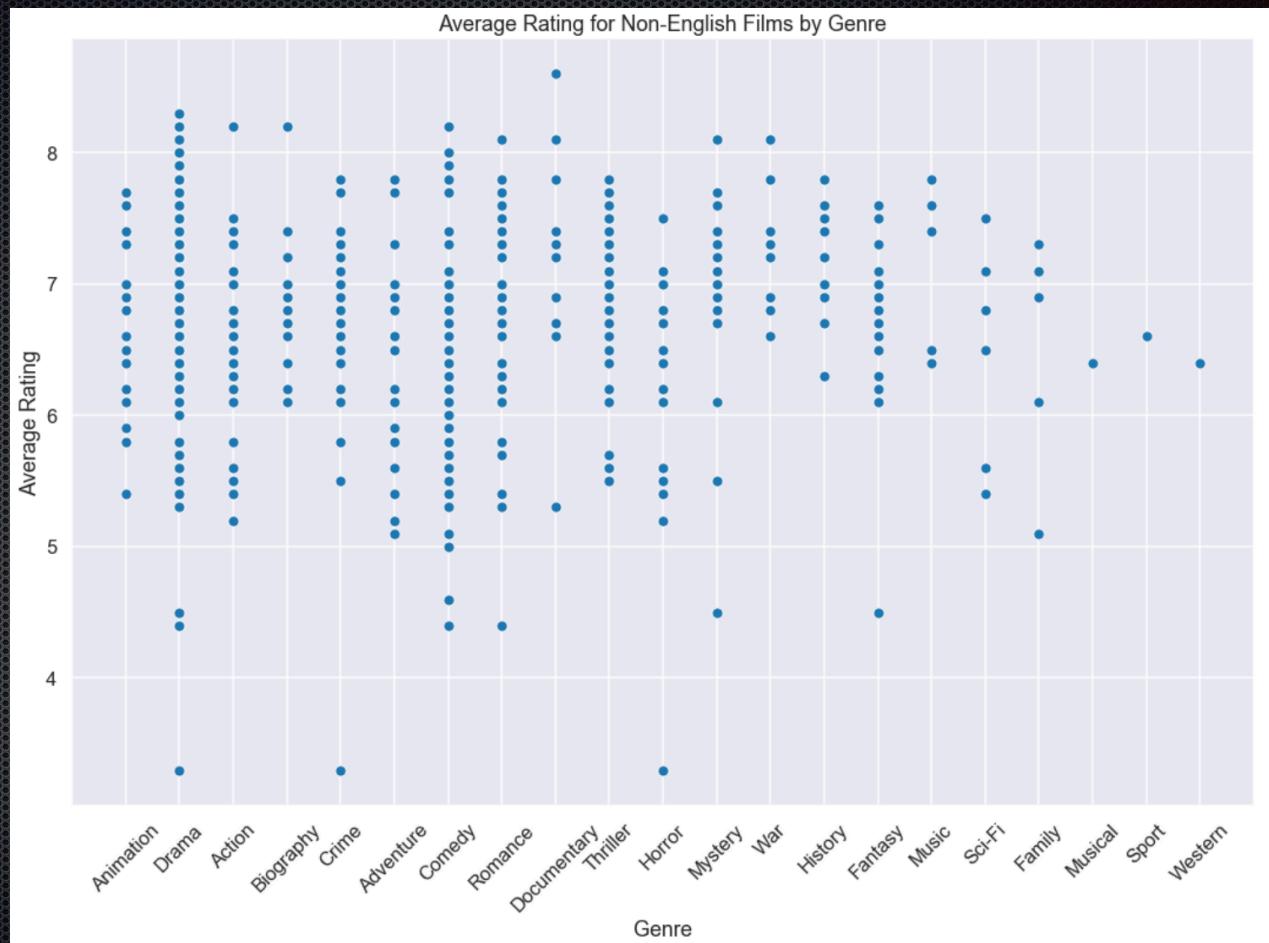
Source for Genres and Movies: www.imdb.com



Findings

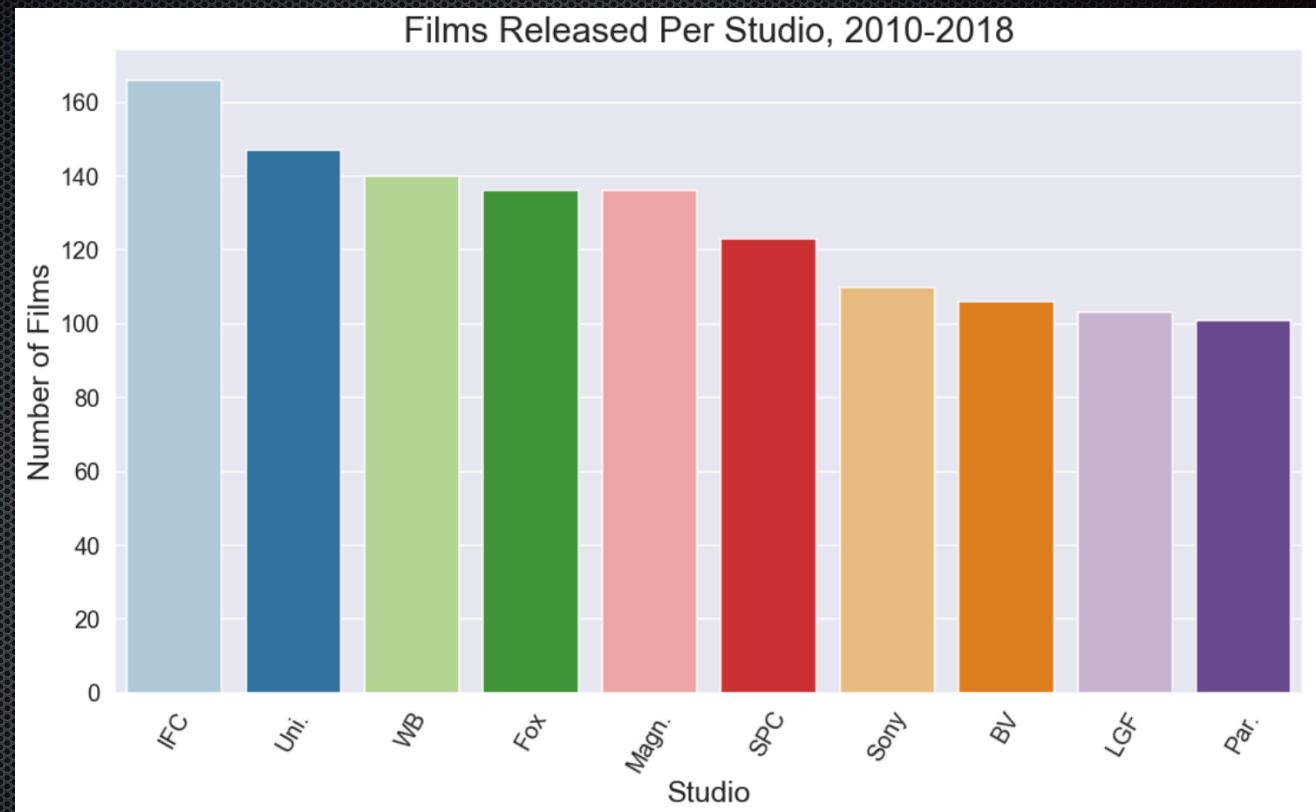
- Average rating for various genre of foreign language films

Source for Genres and Movies: www.imdb.com



Findings

- Number of films released by top 10 film studios

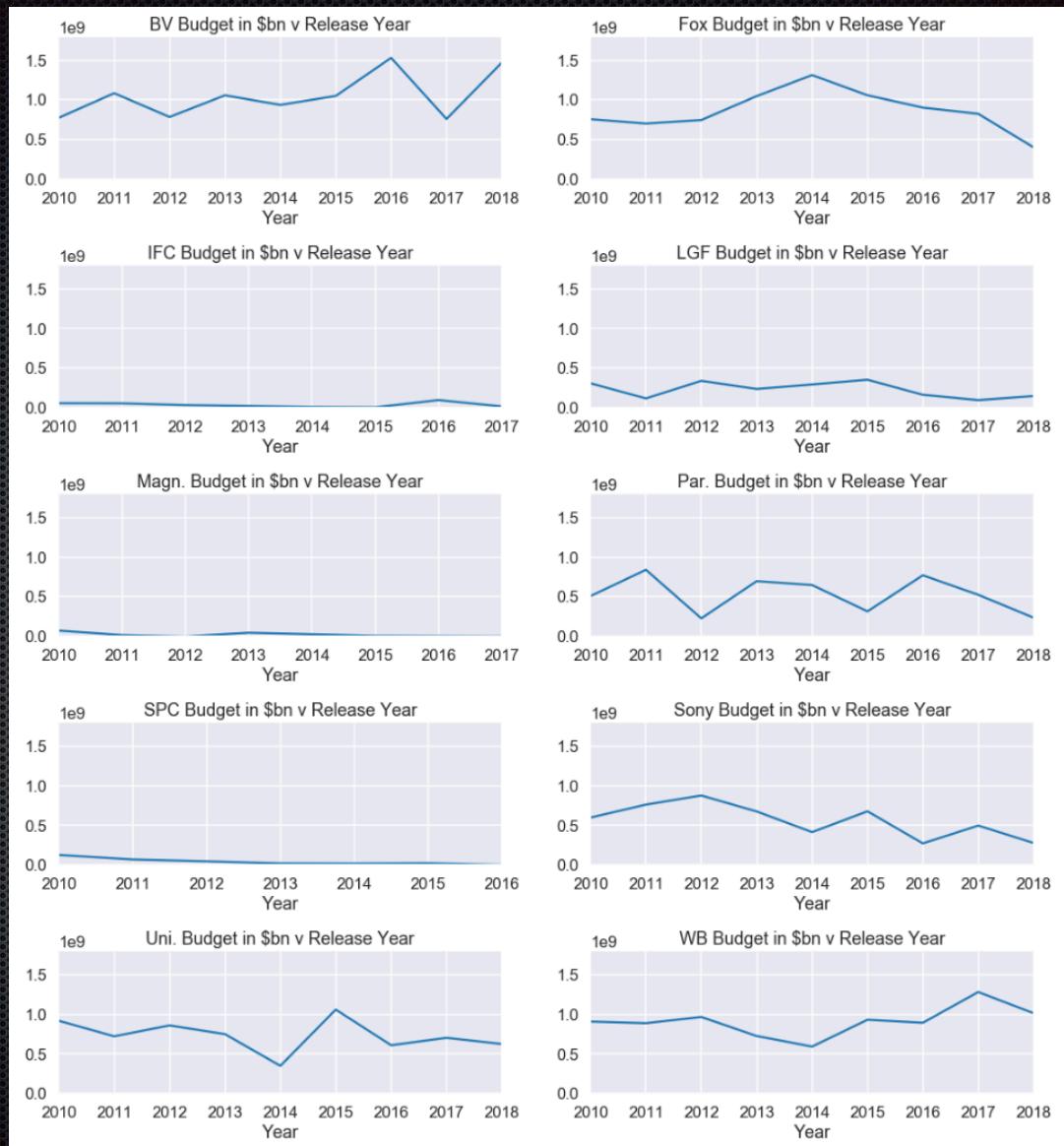


Source for movie studios: www.the-numbers.com



Findings

- Movie production budgets of major and acquire/distributor film studios



Source for movie budgets www.the-numbers.com





Business Recommendations

1. We recommend entering the movie industry through an **acquisition/distribution** model



Business Recommendations

2. We recommend going for **Drama** or **Comedy** genre, if the business opts for diversity in films



Business Recommendations

3. We recommend planning to release movies towards the summer or at the end of the year.



Future Work

1. Which advertising medium is more effective?
2. What is the ideal length of a popular movie
3. What are the profit margins of the top 10 film studios?



Future Work

Which advertising medium is the most effective ?

With the typical marketing budget being 50% of production, by reducing the advertising cost, a movie can increase its profitability:*

- Machine learning and Algorithmic recommendations based on past viewership (for streaming media)
- In-Theater movie previews
- Social Media

*Source: Howstuffworks - Entertainment: <https://entertainment.howstuffworks.com/movie-cost1.htm>



Future Work

What is the ideal length of a popular movie ?

Referred to as “runtime”, the popularity of movies with various runtimes should be explored.

From the data already collected, this insight will be crucial in determining the production budget, as a longer movie would potentially cost more to produce.



Future Work

What are the profit margins of the top 10 film studios?

Although having big budgets might mean larger gross sales, and more movies, a further analysis from our data can be done to see how much **profit** did each **top studio make** and what is the **ideal number of movies** to attain a target profit.

Thank you for your attention

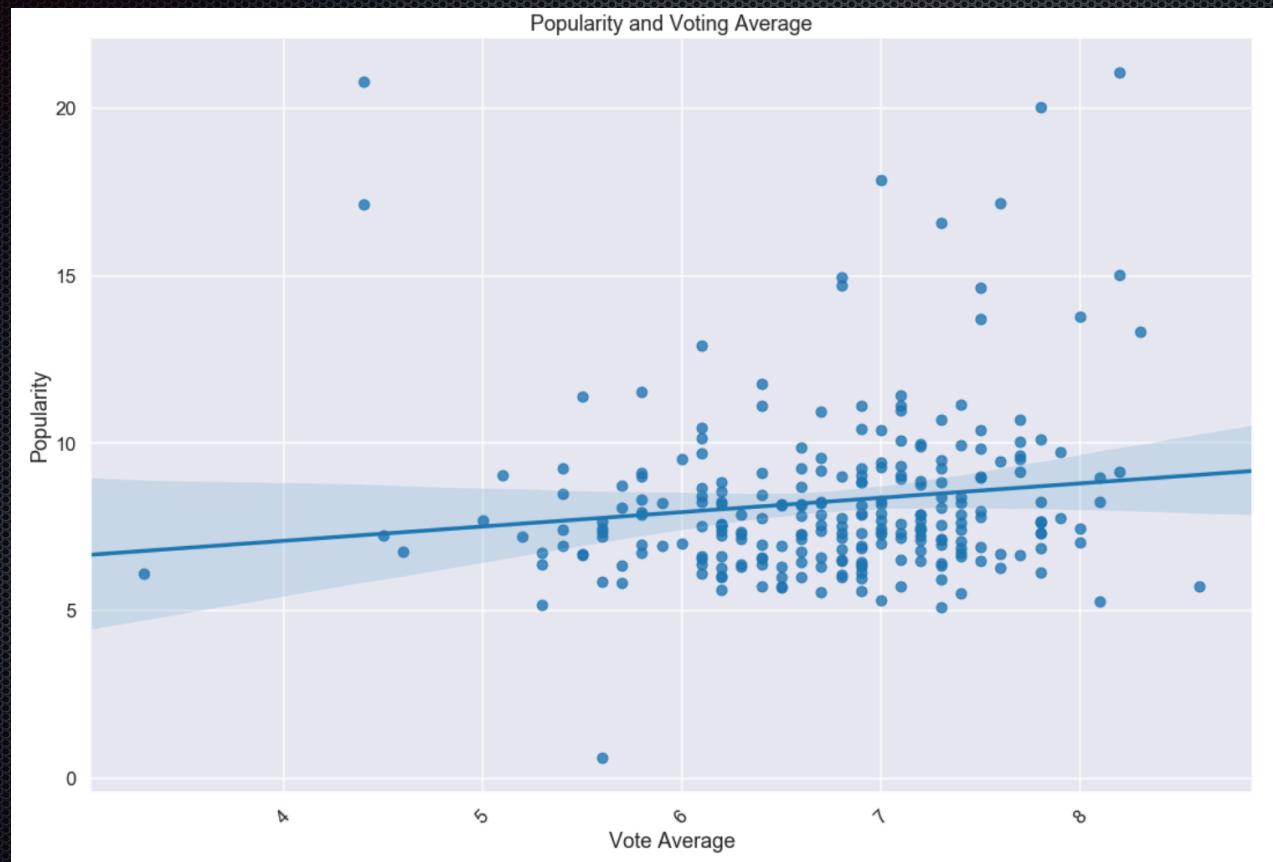
Questions ?

Comments ?

Feedback ?



Appendix 1 – Popularity & Voting Average





Appendix 1 – Correlation between Popularity & Voting Average

```
In [69]: # confirm there is no correlation between vote average and non_en_movie_details_df.corr()
```

Out[69]:

	start_year	id	popularity	vote_average	vote_count	Anim
start_year	1.000000	0.782352	0.059249	0.013933	-0.070101	
id	0.782352	1.000000	0.192613	0.048509	-0.047919	
popularity	0.059249	0.192613	1.000000	0.132982	0.384245	
vote_average	0.013933	0.048509	0.132982	1.000000	0.246060	
vote_count	-0.070101	-0.047919	0.384245	0.246060	1.000000	

