



Module I: Microsoft Movies

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PROBLEM STATEMENT

1



MARKET

Our close competitors have started making **original content** thanks to proprietary film studios

2



MOVIE STUDIO

Out of our comfort zone so we need to do our **due diligence** to maintain high quality product

3



BOX OFFICE

Data analysis to explore **which films are currently doing best** in the box office

BUSINESS VALUE

- **LAUNCH**
- **RECENT SUCCESSES**
- **FILM CREATION**



METHODOLOGY



Business Understanding:

- Context of the business
- Available data sets (IMDB, Rotten Tomatoes, etc.)

Data Cleaning:

- Standardized data types
- Assumptions for empty data (median, ffill, etc)
- Removing unnecessary columns
- Customization (49+ votes only, 2015 or later only)

Data Exploration:

- Searched for value in the data
- Combined and built data sets (joins, merges, etc)
- Sorted and arranged the data (top 5, top 100, etc)

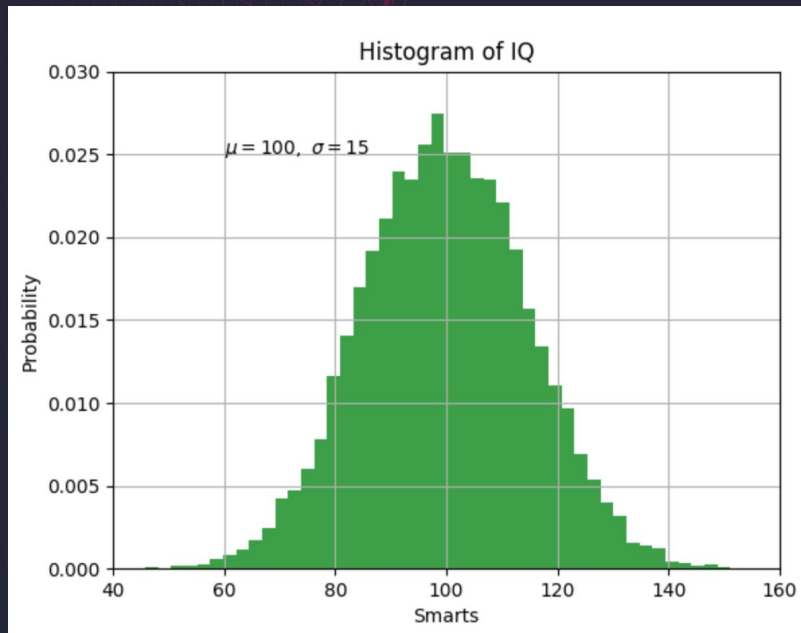
Data Visualization:

- Visualized findings in graphical form

Toolkits:

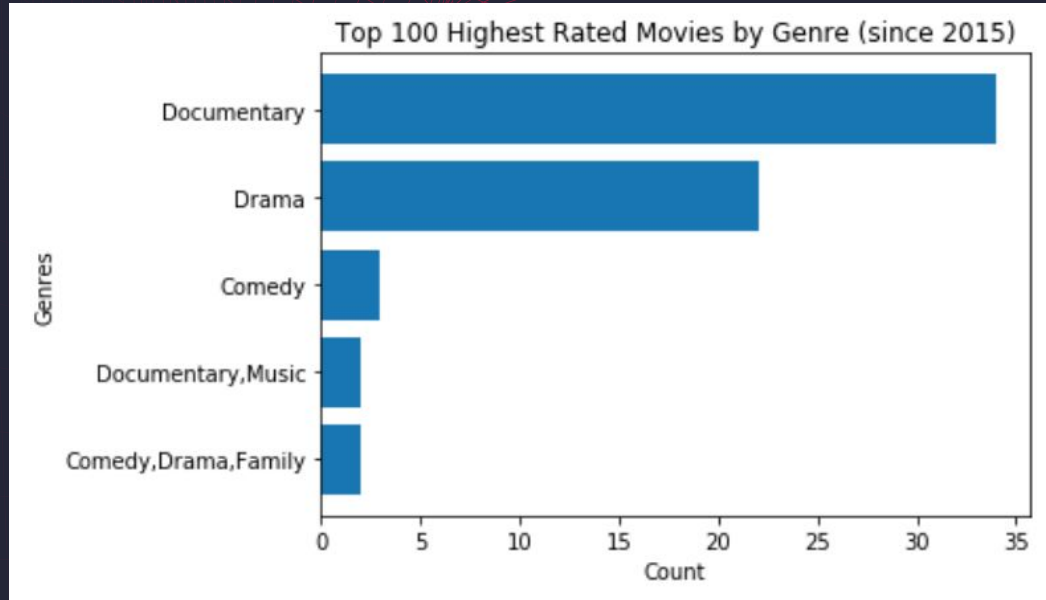
- Pandas (package for data manipulation and analysis)
- Numpy (package for scientific computing)
- Matplotlib (package for plotting)
- Seaborn (package for statistical graphics)

FINDINGS I



Genres have the highest correlation to box office success

FINDINGS I



Top 5:

1. Gini Helida Kathe (99 rating)
2. Once Upon a Time in Hollywood (97 rating)
3. Eghantham (97 rating)
4. Dosed (97 rating)
5. Ekvtime: Man of God (96 rating)

Documentary or Drama Movies

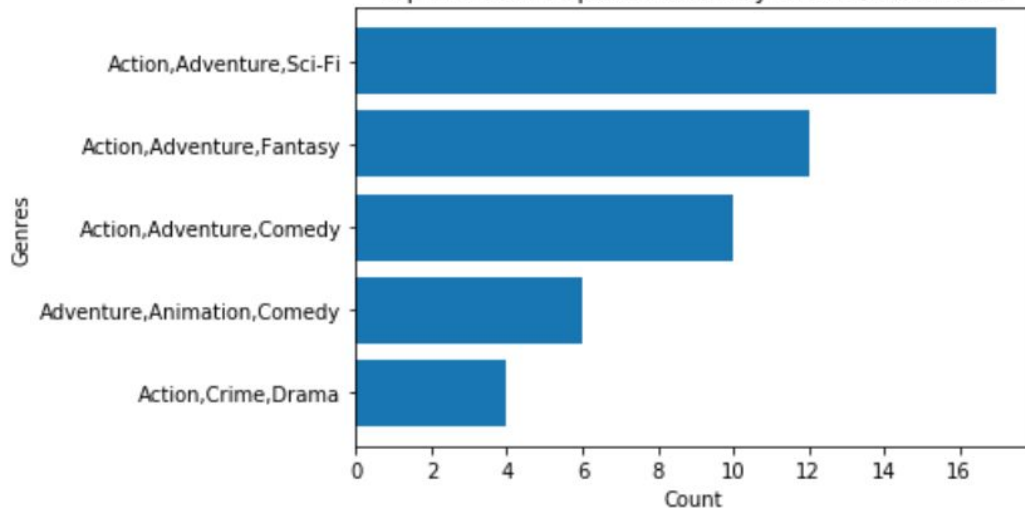
Documentary and Drama films account for over 56% of the Top 100 Most Popular Movies since 2015

Takeaway

Create a Documentary or Drama film to maximize **audience ratings**

FINDINGS 2

Top 100 Most Popular Movies by Genre (since 2015)



Top 5:

1. Deadpool (820,847 votes)
2. Star Wars: Episode VII - The Force Awakens (784,780 votes)
3. Mad Max: Fury Road (780,910 votes)
4. The Martian (680,116 votes)
5. Avengers: Infinity War (670,926 votes)

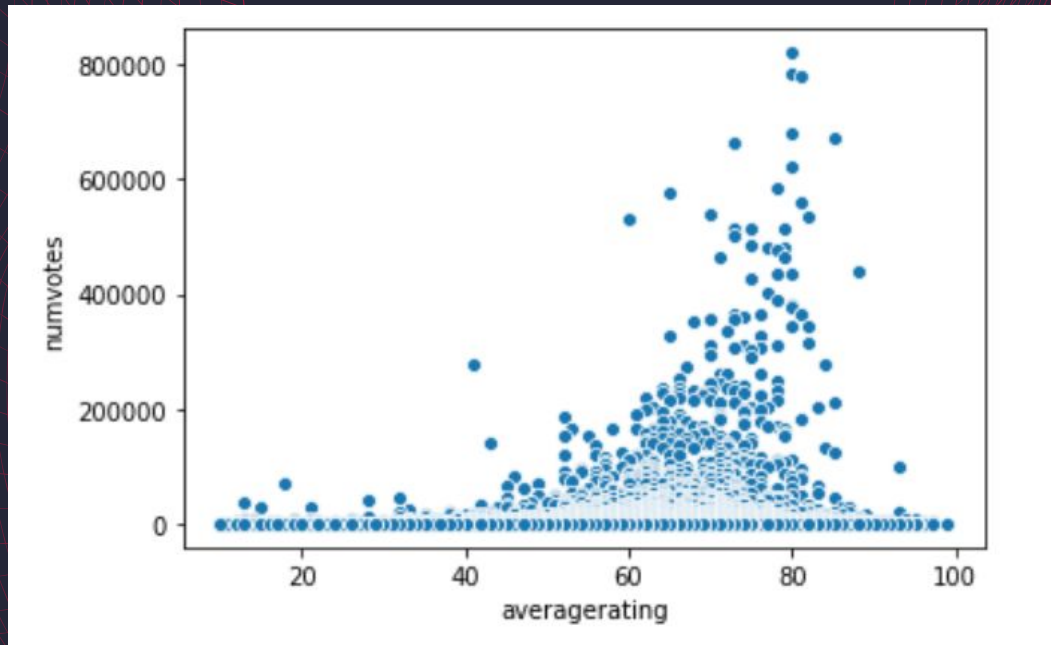
Action + Adventure + X Movies

Action, Adventure and a mix of either Sci-fi, Fantasy, or Comedy account for over 40% of the Top 100 Most Popular Movies since 2015

Takeaway

Create an Action, Adventure, & Sci-Fi movie if optimizing for **popularity and buzz**

FINDINGS 3



Positive Correlation between *Average Rating* & *Number of Votes*

The correlation coefficient between these two variables is **positive at 0.1012**, telling us that quality should not be sacrificed in chasing the box office hit.

Takeaway

Aim to **create a highly rated movie** since this has shown to increase the probability of a box office hit, however, we also see that extremely high-rated movies tend to not be very popular (with **movies rated between 80-90** doing the best at the box office).

FUTURE WORK

1. Leveraging our legacy technology and proprietary data to create films



THANKS!

Does anyone have any questions?

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