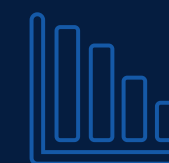


MICROSOFT STUDIO

DATA ANALYSIS



A project by: Mahmoud Yuna





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OVERVIEW

This project has us assisting Microsoft in understanding the movie market. By diving into data from sources like Box Office Mojo and IMDB, we aim to decode what drives box office success



BUSINESS UNDERSTANDING

Microsoft's strategic pivot into movie production marks a bold venture aimed at leveraging its technological prowess to delve into the entertainment industry. With a vision to diversify and expand its offerings, the company seeks to harness data-driven insights to navigate the nuanced landscape of filmmaking. This initiative aims to not only create compelling content but also maximize audience engagement and revenue generation. By harnessing the power of big data analytics, Microsoft can gain valuable insights into consumer preferences and market trends, allowing the company to make strategic investment decisions.





Data Understanding

The project involves analyzing data from various sources to assist Microsoft in understanding the movie market.

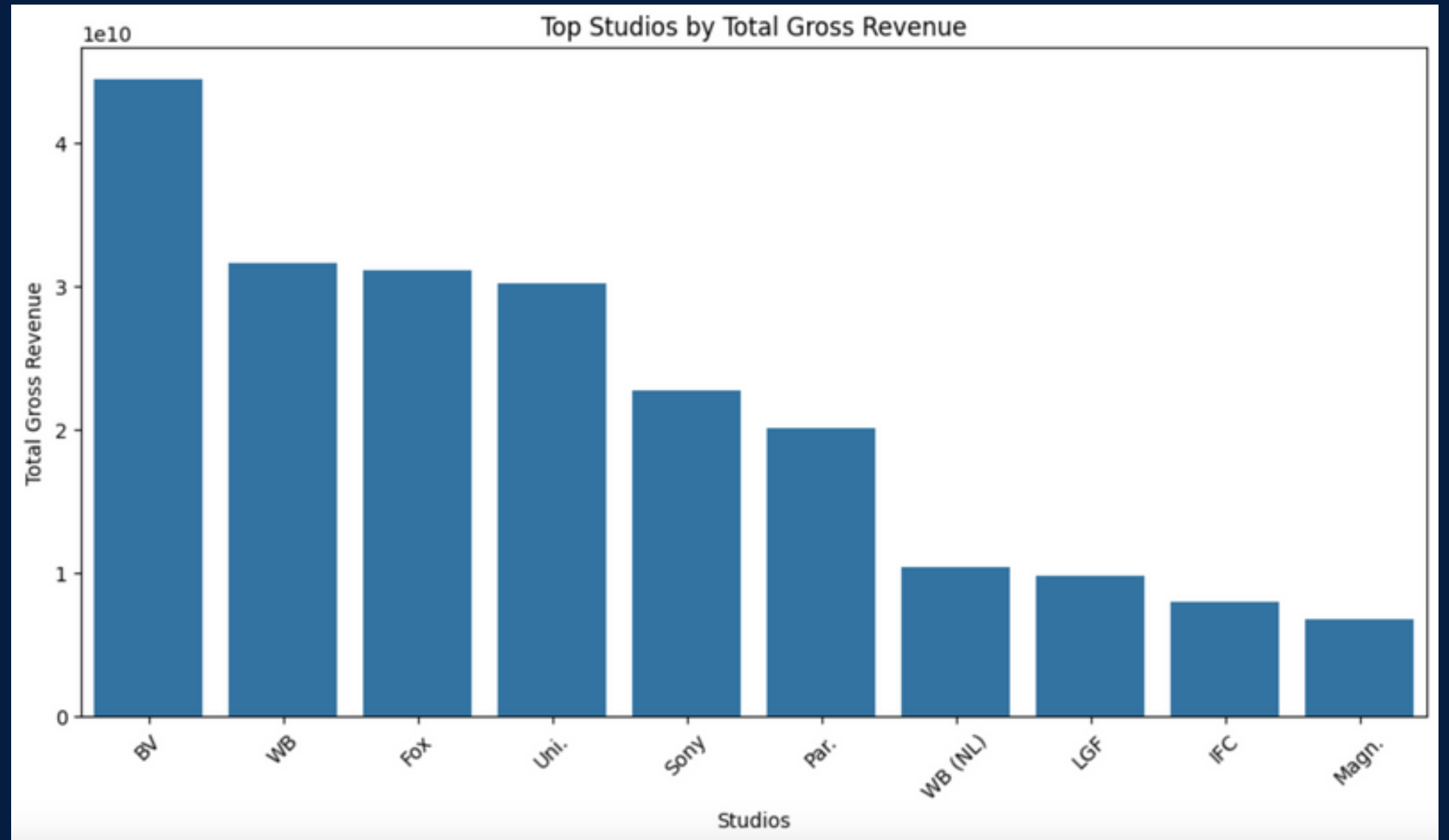
Data is sourced from Box Office Mojo, IMDb, The Movie Database (TMDb), and The Numbers. The datasets contain information about movies, including details like box office earnings, ratings, genres, production budgets, and more. Preprocessing steps were taken to handle missing values and ensure data consistency.

Visualizations

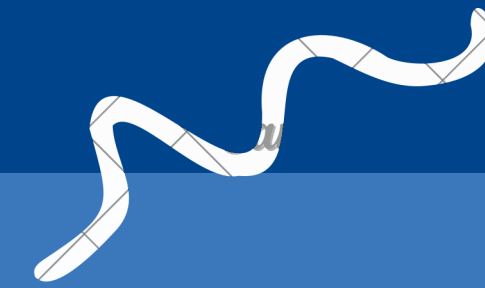
Top Studios By Total Gross Revenue

The top 5 Studios By Total Gross Revenue:

1. BV
2. WB
3. FOX
4. Uni
5. Sony

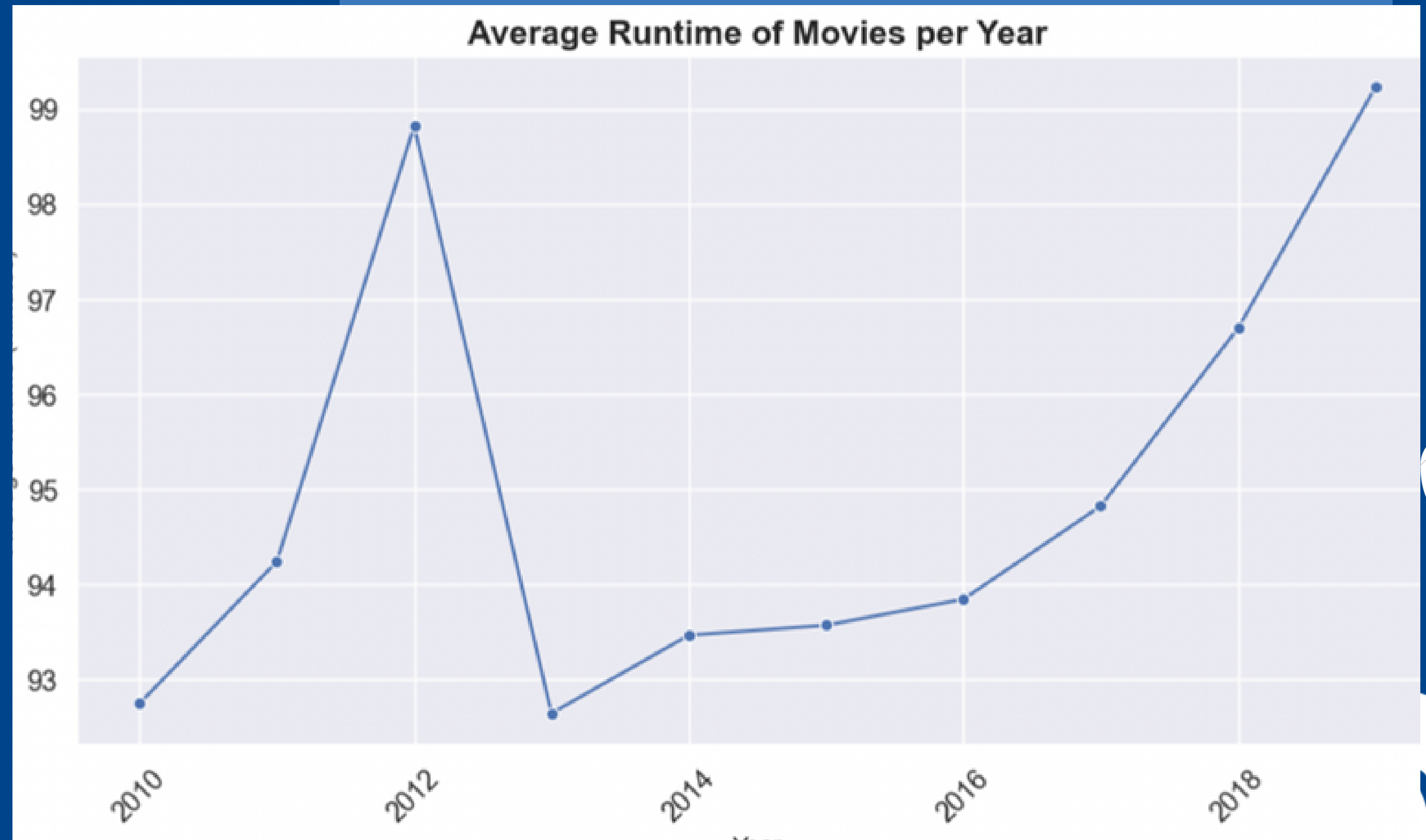


VISUALIZATIONS



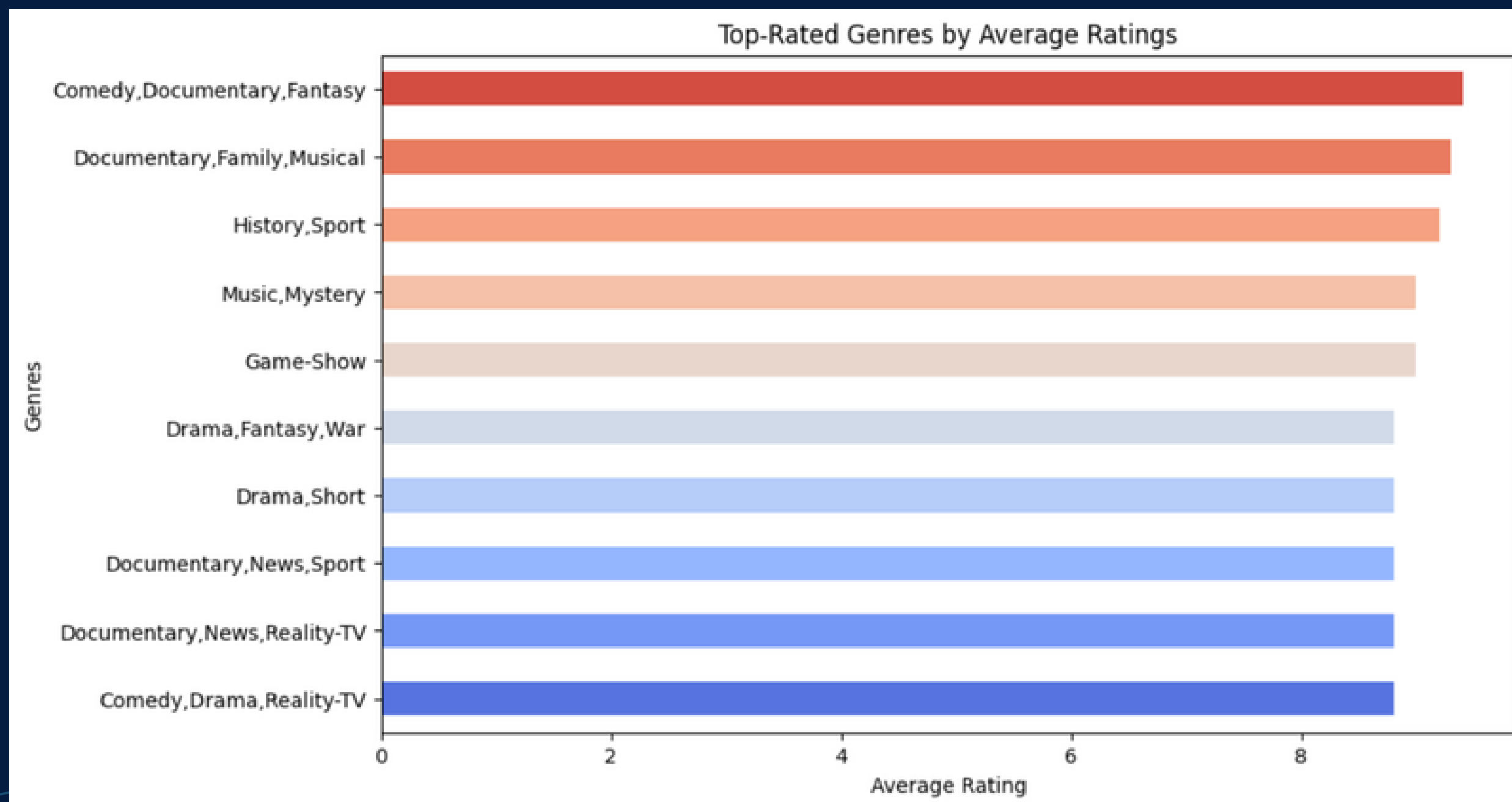
Average Runtime of Movies

The average movie run times per year was from 90 to 99 mins . This no. saw an increase from 2013 to the last recorded year.





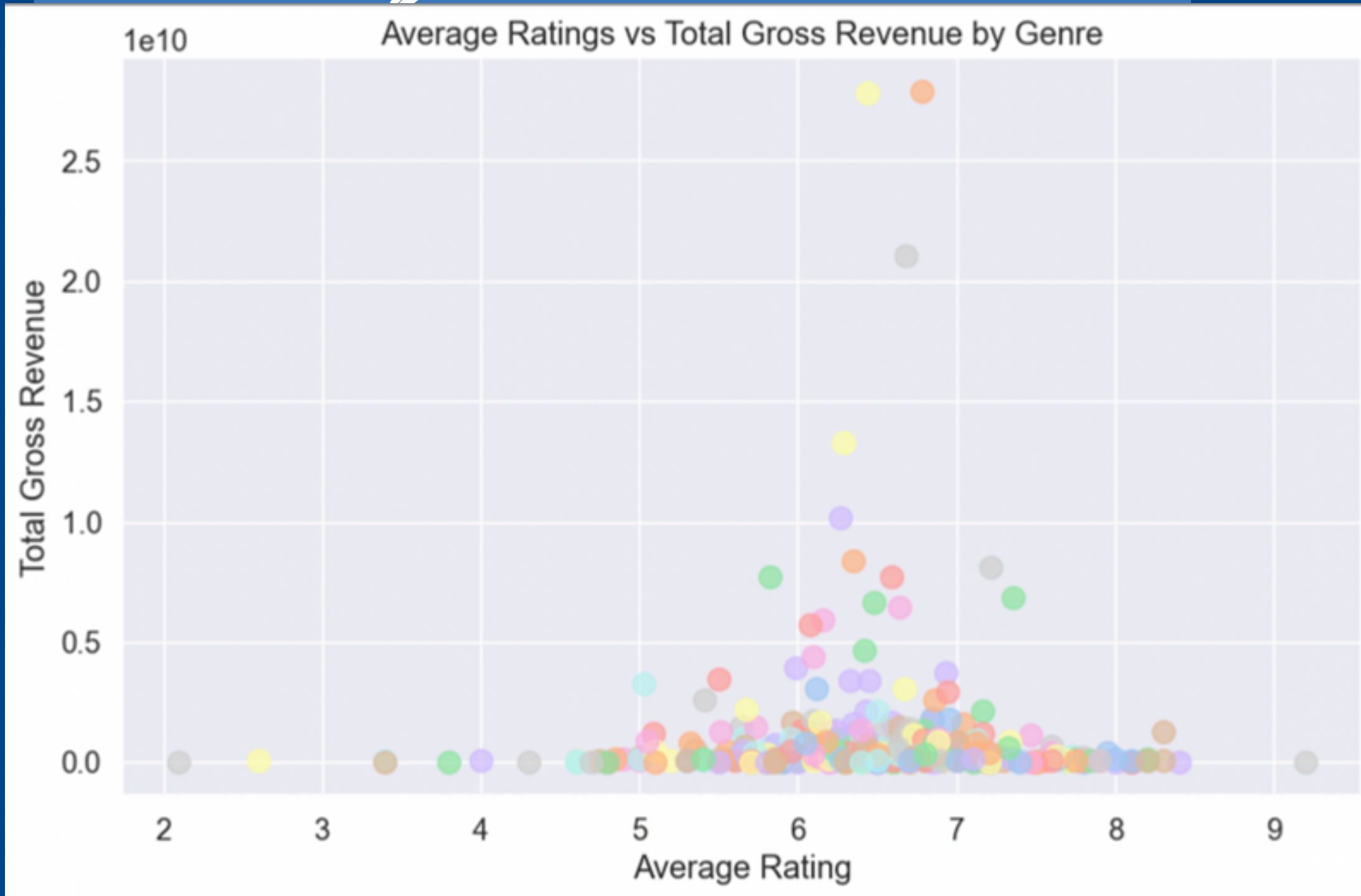
Visualizations



Top Rated Genres by Average Ratings

The Top Rated Genres by Rating Were Comedy, Documentay and Fantasy

VISUALIZATIONS



Average Ratings vs Total Gross Revenue by Genre

The higher the total gross revenue the higher the average ratings were.

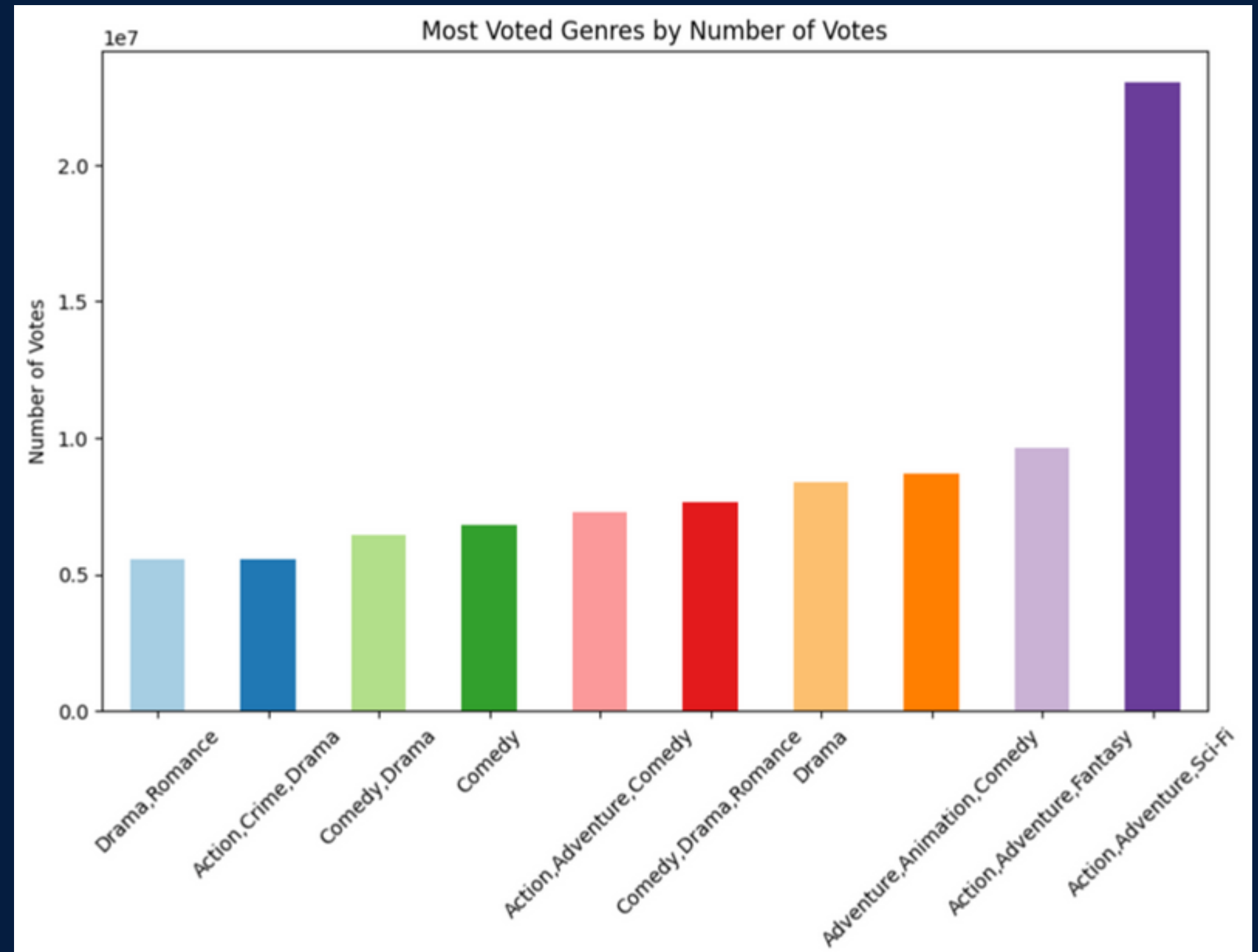


Visualizations

Most Rated Genres By No. of Votes

These were:

- Action
- Adventure
- Scifi



Conclusion

- **Top Studios and Revenue:** The examination of total gross revenue elucidates the dominance of certain studios like BV and WB, consistently leading in box office earnings, showcasing their prowess in revenue generation from movie productions.
- **Genre Impact on Ratings and Votes:** Different genres exhibit varying trends in ratings and votes. Genres such as Drama, Adventure, and Animation often receive higher average ratings, while Action, Adventure, and Sci-Fi genres tend to accumulate more votes, signaling their popularity among audiences.
- **Runtime Trends:** Analysis of average movie runtimes over the years unveils fluctuating patterns, shedding light on evolving audience preferences, industry trends, and potentially changing storytelling formats or audience attention spans.
- **Data Preprocessing Challenges:** While data preprocessing played a crucial role in handling missing values and ensuring data consistency, challenges remained, particularly in addressing missing foreign gross values, necessitating strategic imputation methods.





Recommendations

01

Budget Allocation Strategy – Based on the observed correlation between budget and box office success, consider allocating resources strategically. While high-budget movies might promise better returns, consider diversifying investments across different budget ranges to mitigate risks.



02

Recommendations

1. **Genre Selection and Audience Targeting** – Utilize the insights on genre performance to guide the selection of movie genres for future projects. Target specific audience segments by focusing on genres that have historically performed well.



03

Recommendations

Engage in Marketing and Promotion – Based on the observed correlation between budget and box office success, consider allocating resources strategically. While high-budget movies might promise better returns, consider diversifying investments across different budget ranges to mitigate risks.



Recommendations

04

Experimentation and Innovation – Encourage innovation and experimentation in storytelling, visuals, or narrative styles to cater to evolving audience tastes. Explore collaborations or novel approaches to differentiate movies in the market.



SUMMARY

Analyzing the movie industry data offers Microsoft valuable insights for its foray into movie production. Through strategic budget allocation based on box office success correlations, tailored content creation aligned with genre preferences, and leveraging critical reviews in marketing campaigns, Microsoft can optimize its film projects. Augmenting datasets, adapting strategies based on industry trends, and integrating predictive analytics using machine learning models further enhance decision-making. This data-driven approach ensures Microsoft's competitive edge and innovation in the dynamic landscape of the entertainment industry.



THANK YOU

