

MICROSOFT MOVIE STUDIO INSIGHT

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OVERVIEW

This project aims to guide a Microsoft Movie Studio making data-driven decisions about which movie films to produce by analyzing key factors that drive box office success. Using IMDB and movie budget data, the analysis explores movie genres, viewer rating, director and actor influence and budget impact on revenue. The insights got from these analysis then help provide business recommendations to help the studio to be successful

BUSINESS PROBLEM

- The company has decided to create a new movie studio, but they don't know anything about creating movies. We are charged with exploring what types of films are currently doing the best at the box office. We must then translate those findings into actionable insights that the head of this company's new movie studio can use to help decide what type of films to create.

OBJECTIVES

- To determine which movie genres, perform highly in terms of revenue and viewer rating.
- To determine which directors and actors are linked to the highest performing movies.
- To determine whether movie budget affects the overall performance of a movie.

DATA OVERVIEW

Datasets used are:

1. IMDb (SQLite Database: im.db)

- The tables used are: movie_basics, movie_ratings, directors, persons

2. tn.movie_budgets.csv.gz

- Key columns used are the production budgets and worldwide gross.

DATA CLEANING AND PREPARATION

Cleaned the data by:

- Removing duplicates to have unique records only
- Handling null values to maintain data integrity
- Fixing incorrect formatting to ensure data consistency
- Confirming data is clean and ready for preparation

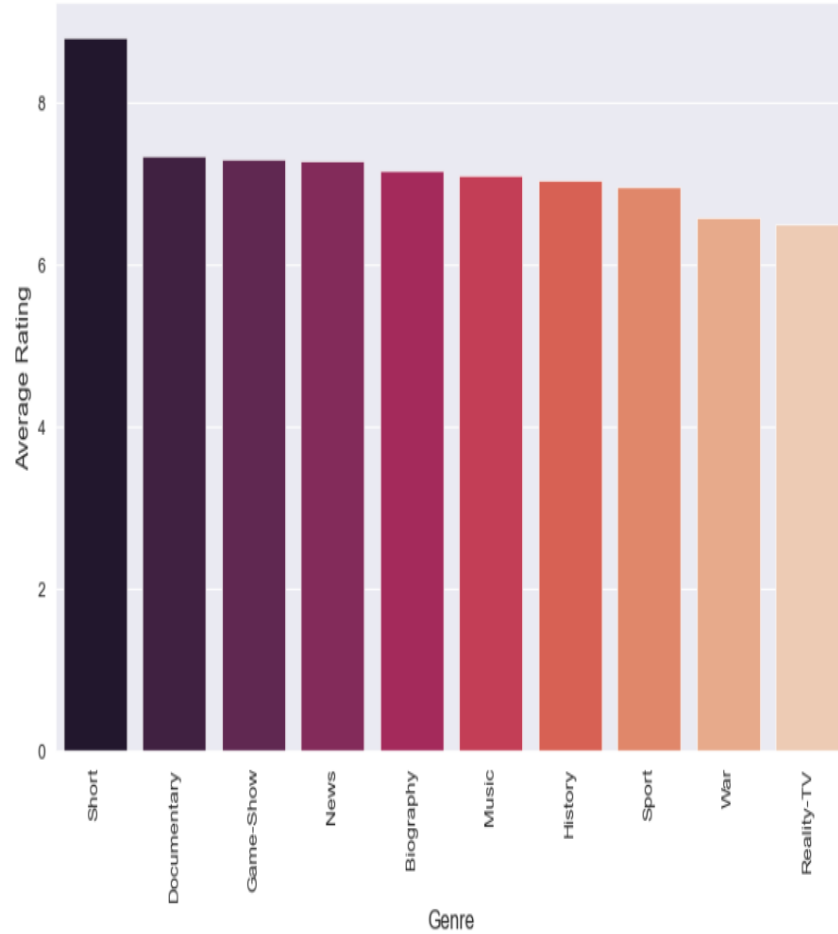
Prepared the data by:

- grouping into relevant categories
- Merging datasets to improve analysis
- Transforming the dataset to separate each genre
- Creating new features to enhance insights

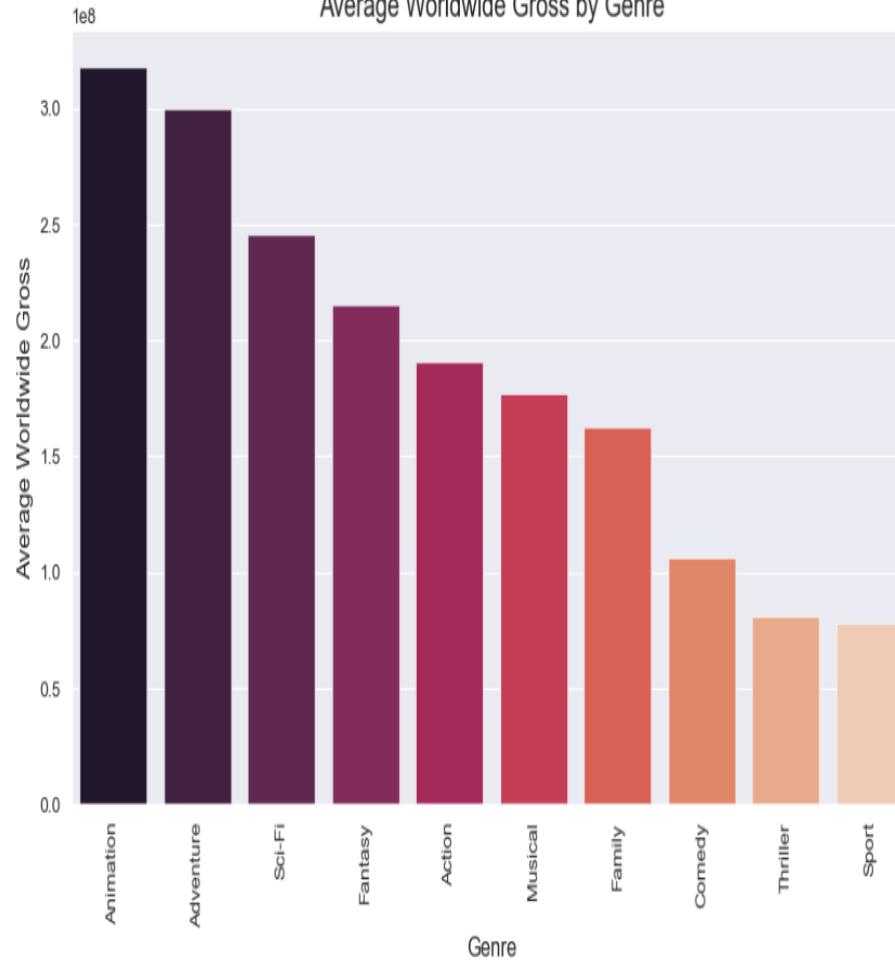
VISUALIZATIONS

Determining movie genres perform based on revenue and viewer rating

Average Ratings by Genre



Average Worldwide Gross by Genre

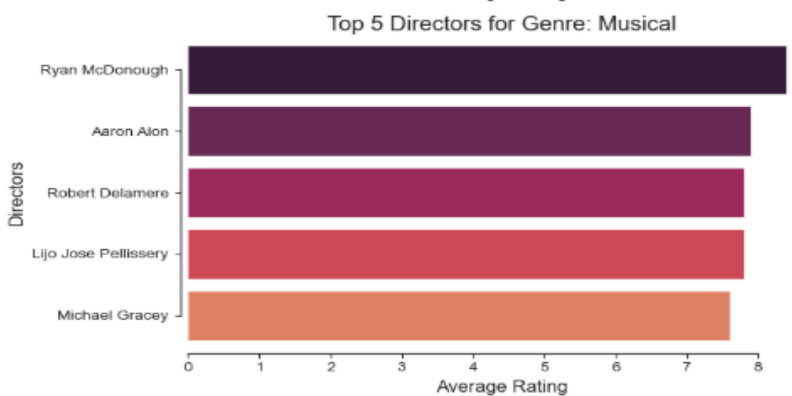
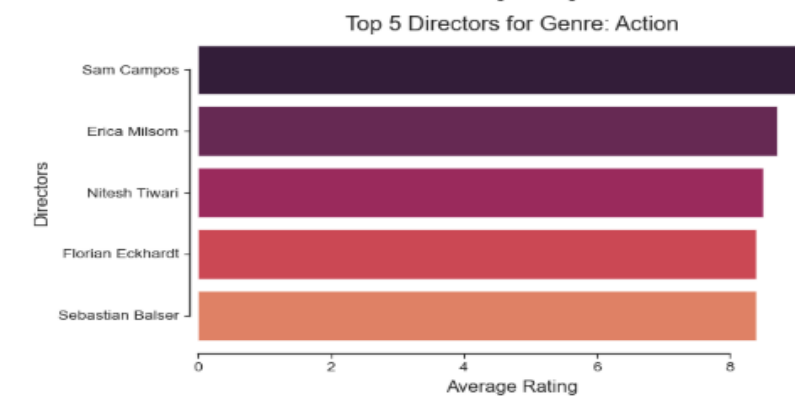
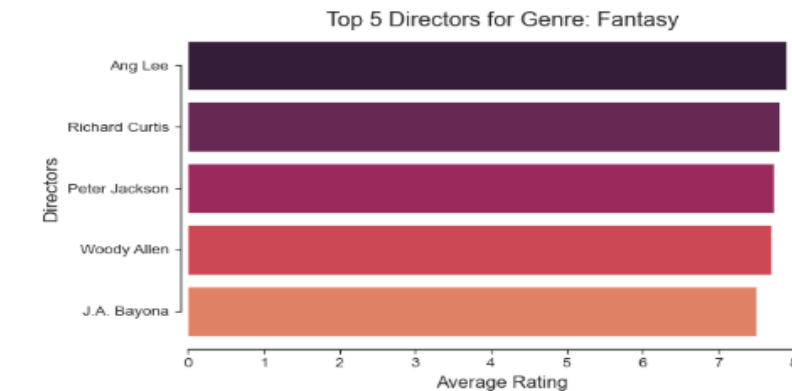
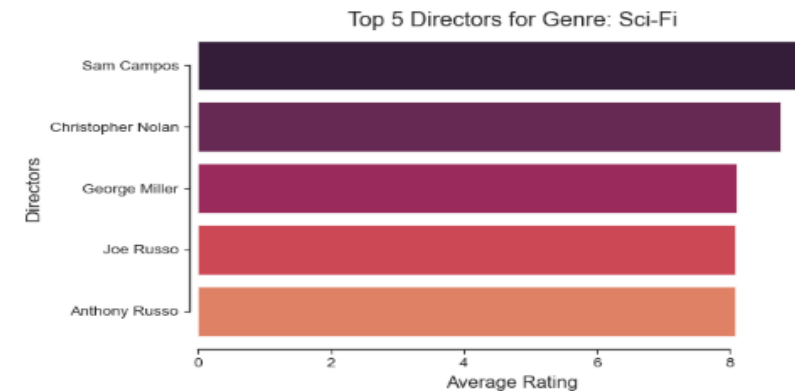
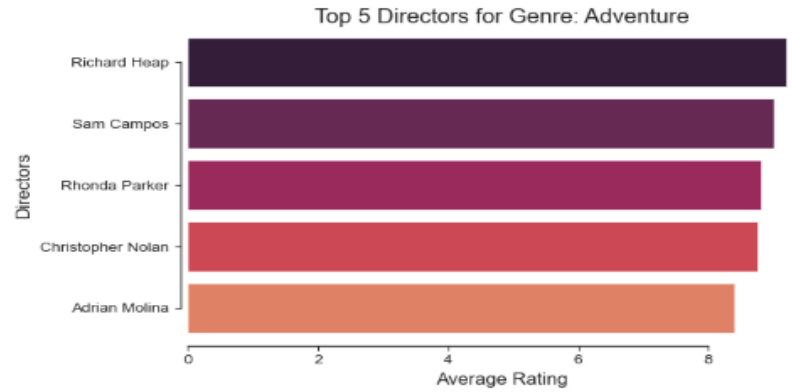
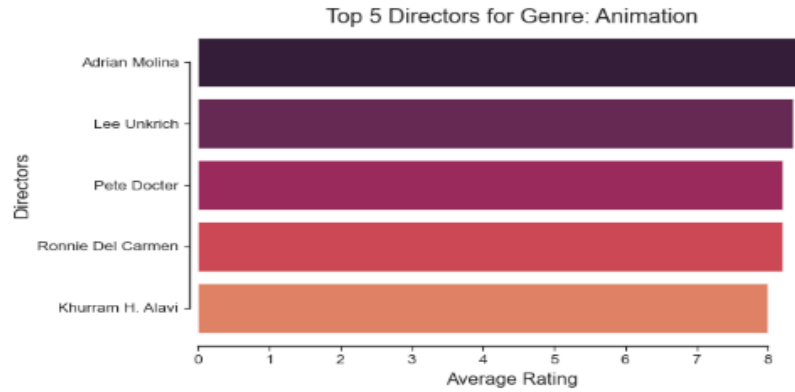


Insights:

- Top 3 Genre in terms of worldwide gross are: Animations, Adventure and Sci-Fi

- Genres with high average ratings are: short, Documentary and Game-shows

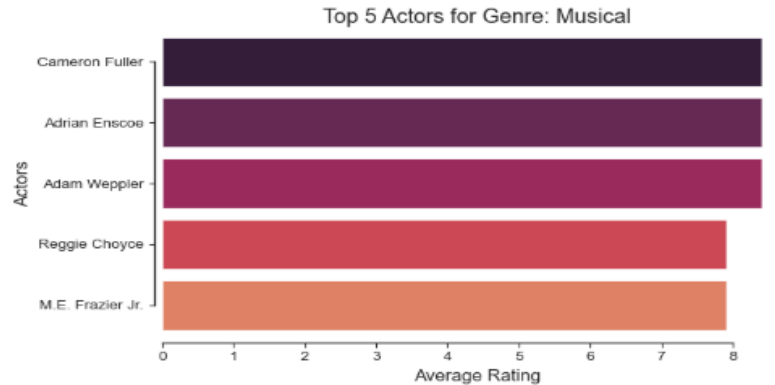
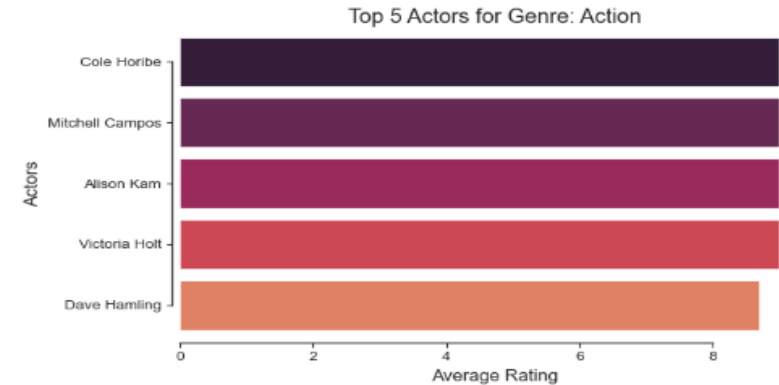
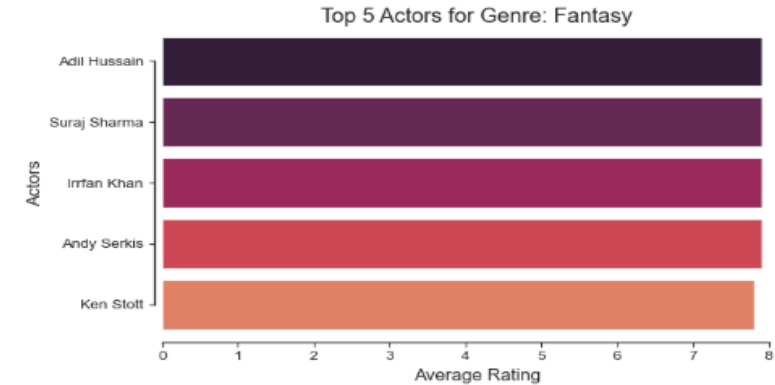
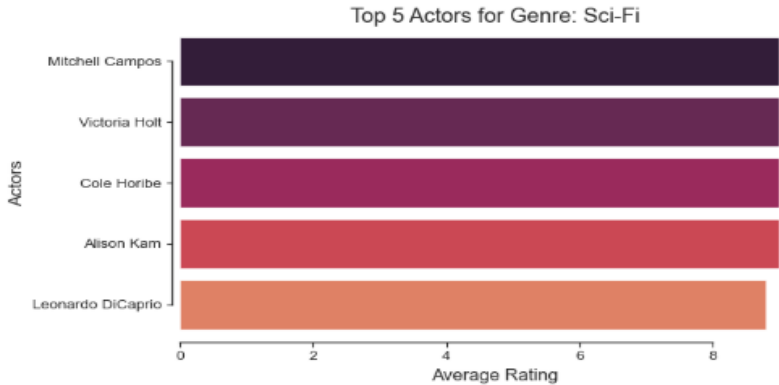
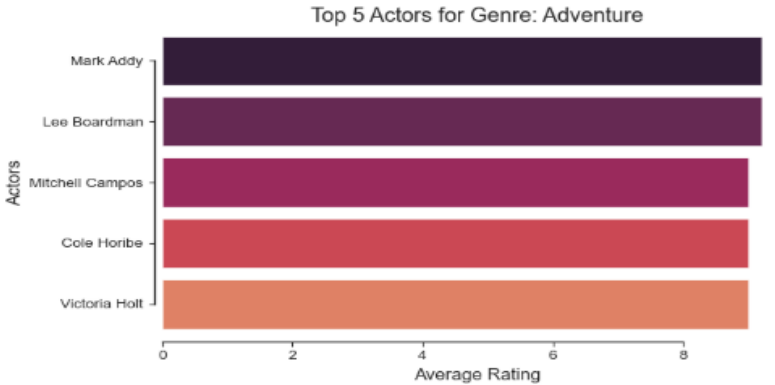
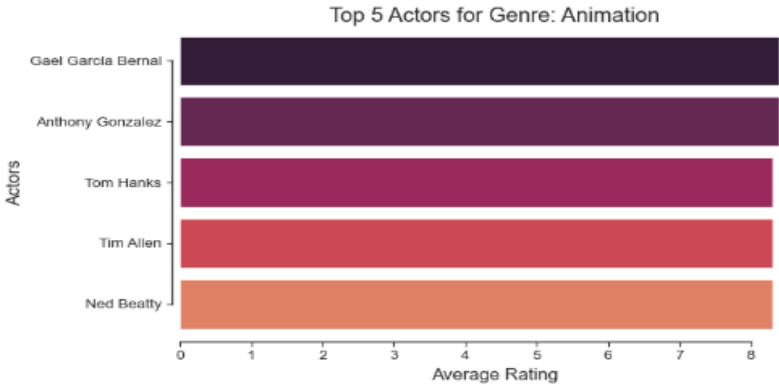
Top directors are linked to the highest performing movies



Insights:

- The chart shows the names of the top directors linked to the highest performing movies

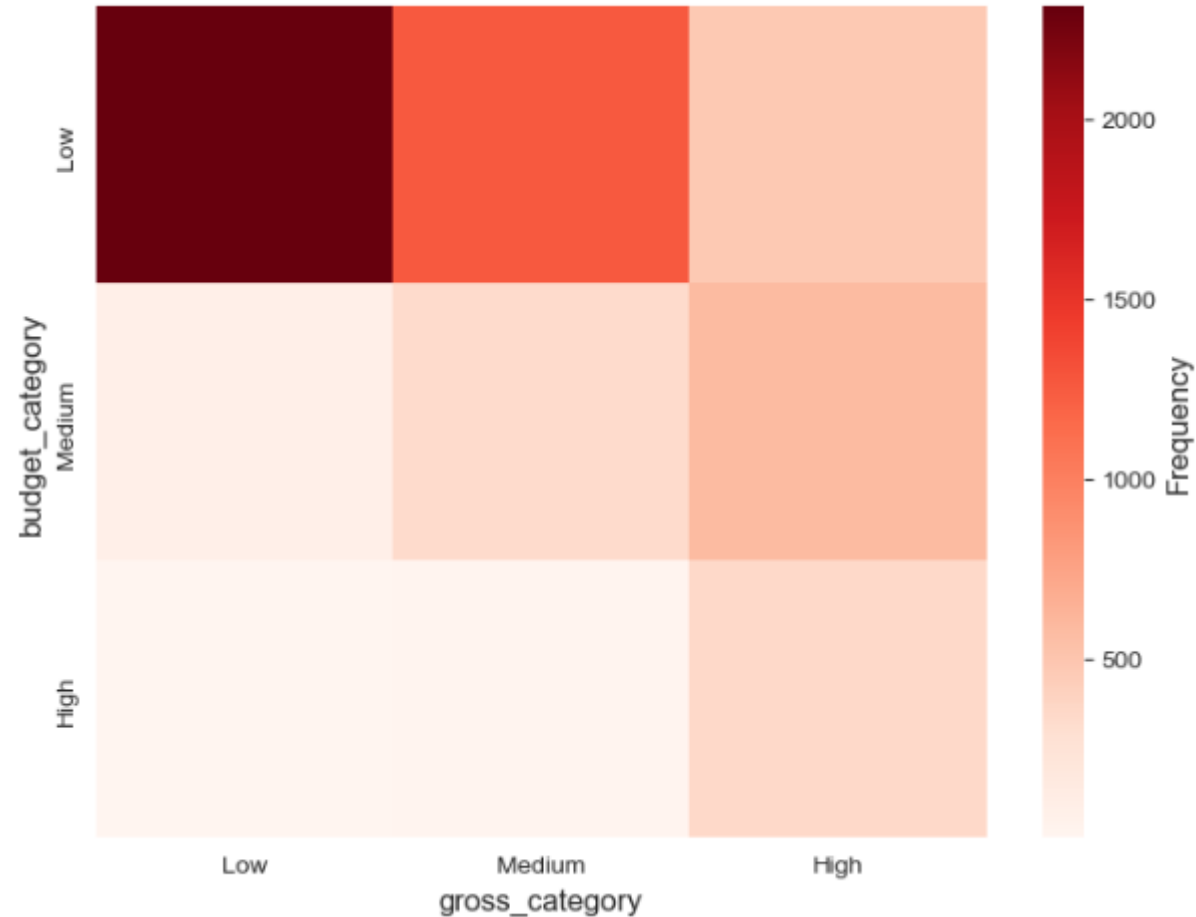
Top actors are linked to the highest performing movies



Insights:

- The chart shows the names of the top actors linked to the highest performing movies

Relationship between movie production budget and worldwide gross categories



Insights:

- The heatmap shows that production budget is significantly associated with worldwide revenue

BUSINESS RECOMMENDATION

- The studio should focus on producing films in the genre of Animations, Adventure and Sci-Fi because they have the highest worldwide revenue potential
- The studio should focus on working with top actors and directors that excel in their respective fields
- The studio should consider investing in higher budget movies, as there is statistical evidence that they are to higher revenue potential. This approach will enhance the studio's financial success.

CONCLUSION

This analysis provides valuable insights into movie success factors, helping Microsoft Movie Studio make data-driven decisions on film production

Future work can include creating predictive models to estimate box office success these factors which are genre, budget, director, and actor. These models can help refine decision-making for movie production ensuring even higher chances of success.

QUESTIONS?

For any additional questions, please contact:

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THANK YOU