



Film Performance Analysis

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Student pace: Full time

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Project description(Introduction)

- In an era where video content dominates the entertainment landscape, the battle for audience attention and box office revenue has intensified. As new players emerge and established companies strive to keep up with evolving viewer preferences, the entertainment industry has become increasingly data-driven. Recognizing this trend, our company is setting out to establish a new movie studio—an ambitious endeavor that promises to harness the power of data to navigate the complexities of film production, even without extensive prior experience in filmmaking.

Project Overview

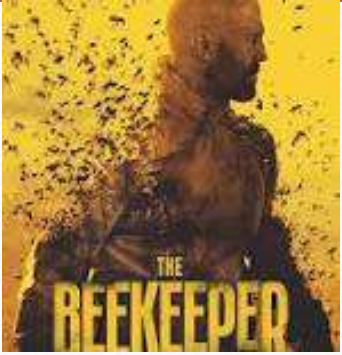


- This project aims to guide the studio's strategic entry into the market by analyzing current box office trends and determining which film genres, budgetary choices, release windows, and audience characteristics contribute to a movie's success. Through a thorough examination of industry data, we'll pinpoint the types of content that resonate with audiences, the optimal release strategies, and the financial investments that offer the best returns. These insights will allow us to make informed, actionable recommendations, positioning the studio to produce compelling films that capture market interest and drive revenue. Ultimately, this project will lay the foundation for a competitive, data-informed approach that leverages today's market dynamics to achieve long-term success in the film industry.



Business Understanding(problem statement)

- Within today's highly competitive entertainment market, companies attract audiences and revenues with unique video content. The company has decided to open a new movie studio in order to take advantage of this trend, although it has little prior experience producing films. This project will analyze the current box office trends and genres of movies that are performing well. Analyzing the data will allow the determination of some key factors of success regarding movie genre, budget, window of release, and audience preference. The insights from this analysis will be translated into actionable recommendations to guide the new movie studio in choosing the right types of films to produce for optimal performance in the market.



Objectives



- Identify film genres and types with strong box office performance.
- Evaluate factors such as budget, release timing, studio and audience reception that influence a movie's success.
- Analyze data from multiple sources, including Box Office Mojo, IMDB, TheMovieDB, and The Numbers.
- Provide recommendations on the types of films to produce based on the analysis results.

Data source and Data Understanding

- The datasets being used for this project was obtained from different sources such as [IMDB](#), [Box Office Mojo](#), and [The Numbers](#). They contain records of films, their genres, ratings, reviews production year and many more.
- Data Understanding>>> data understanding and exploration using python pandas and other python libraries.



Data Preparation

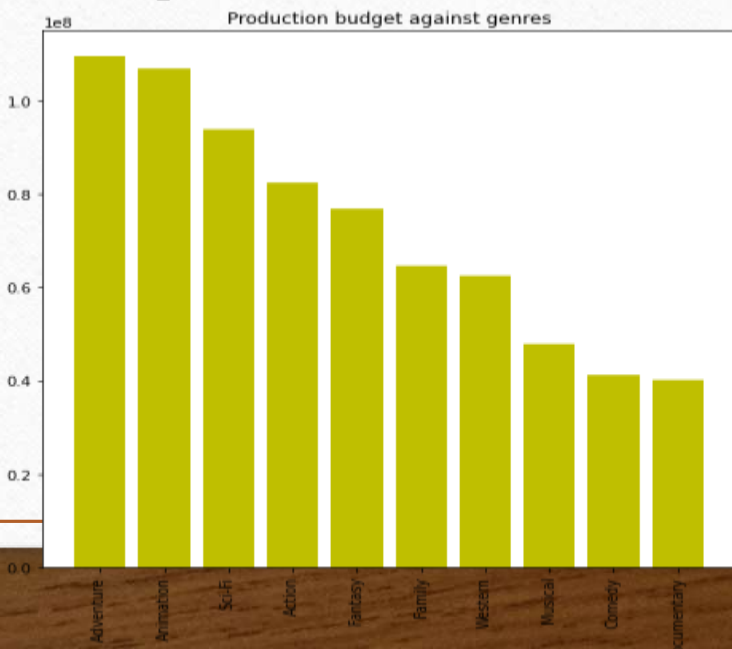
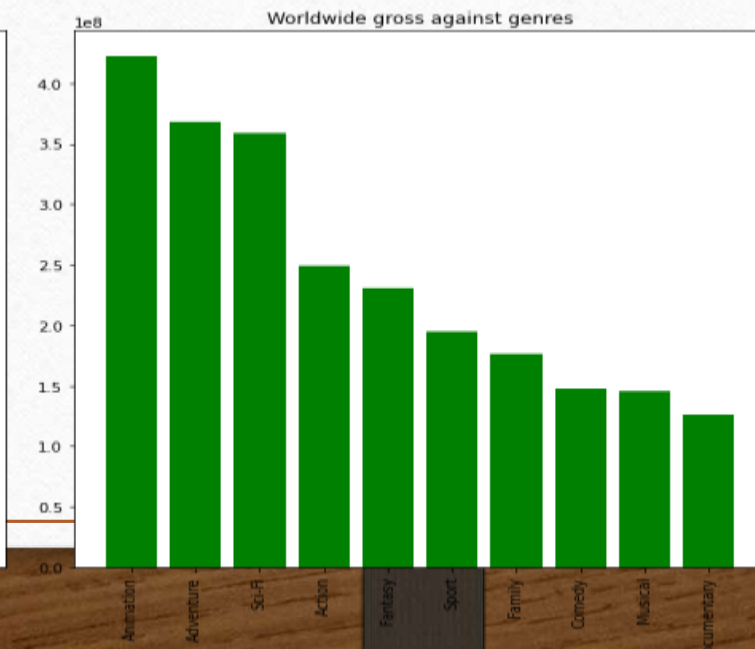
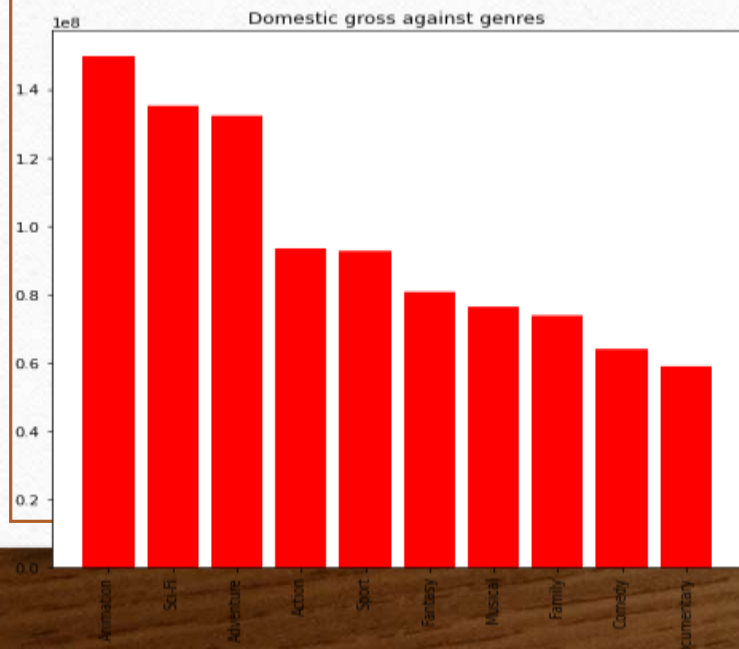
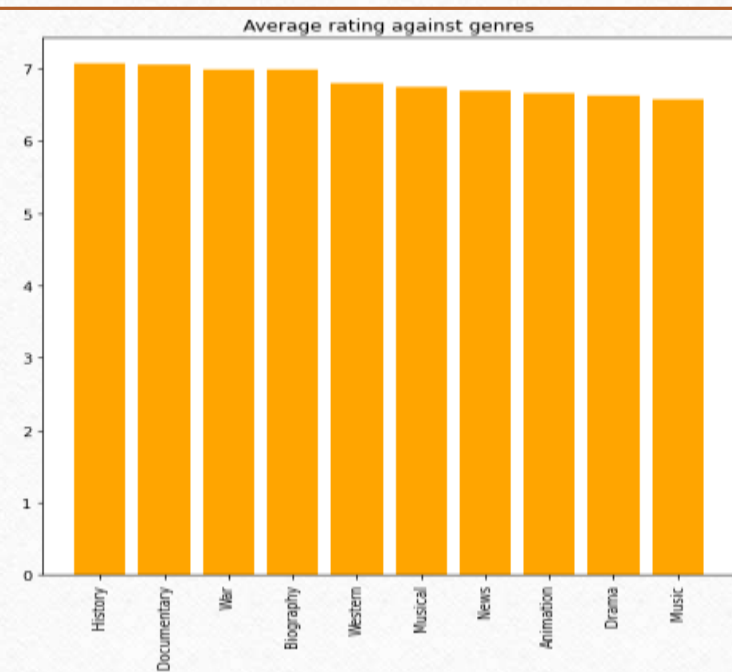
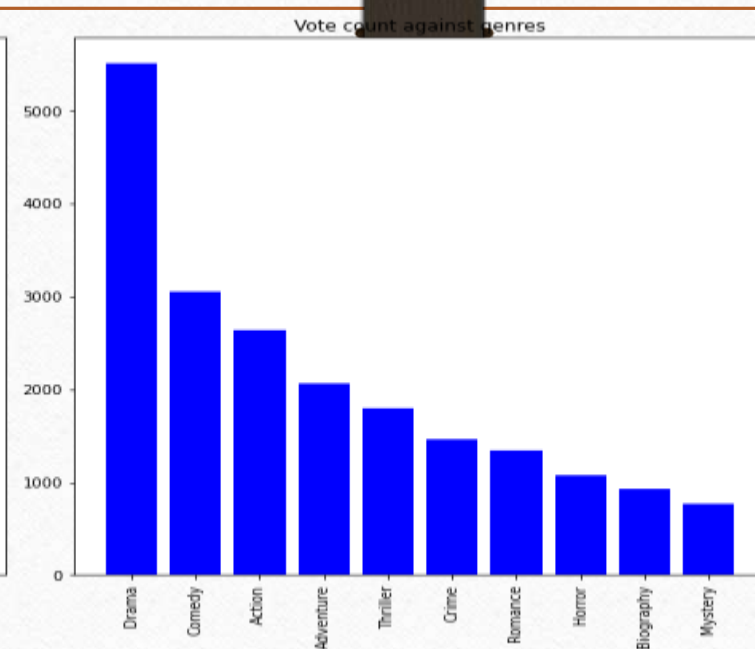
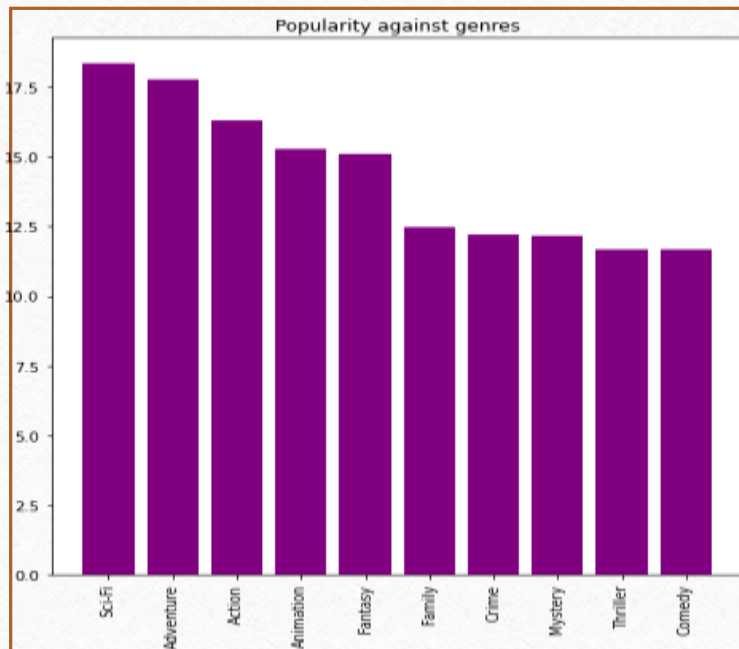
- Data merging
- Data cleaning;
 - Removing duplicates
 - Handling missing data
 - Renaming columns
 - Removing unwanted columns



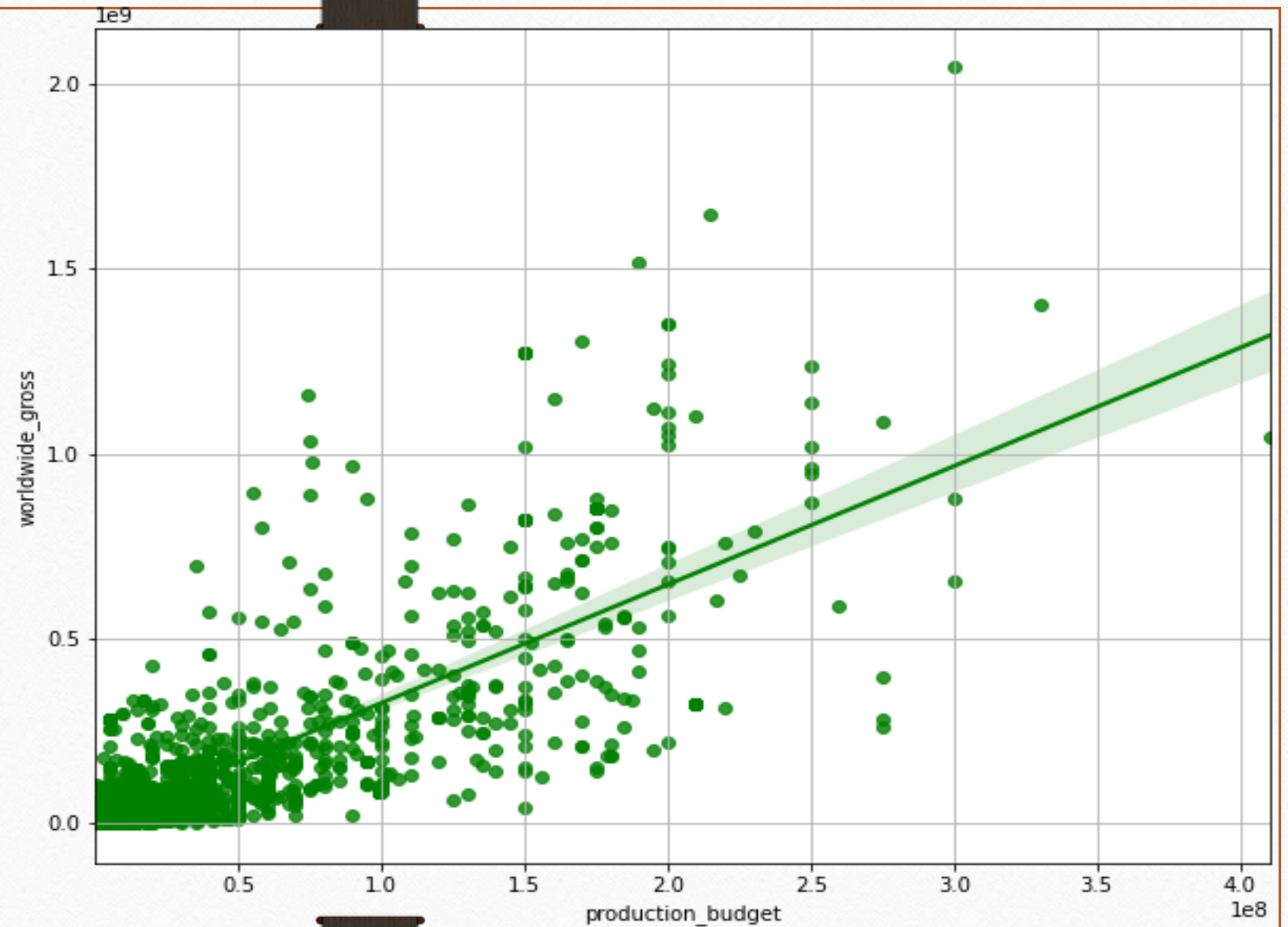


Data Analysis

- Investigate the genre column what are the different levels in terms of popularity ,average ratings, average vote count.
- Does the Time when a film is produced and released have a significance difference on the foreign and domestic gross revenues?
- Does a higher budget guarantee a higher gross return or popularity?
- **We will use visualizations below to analyze and explain the data to meet our objectives.**

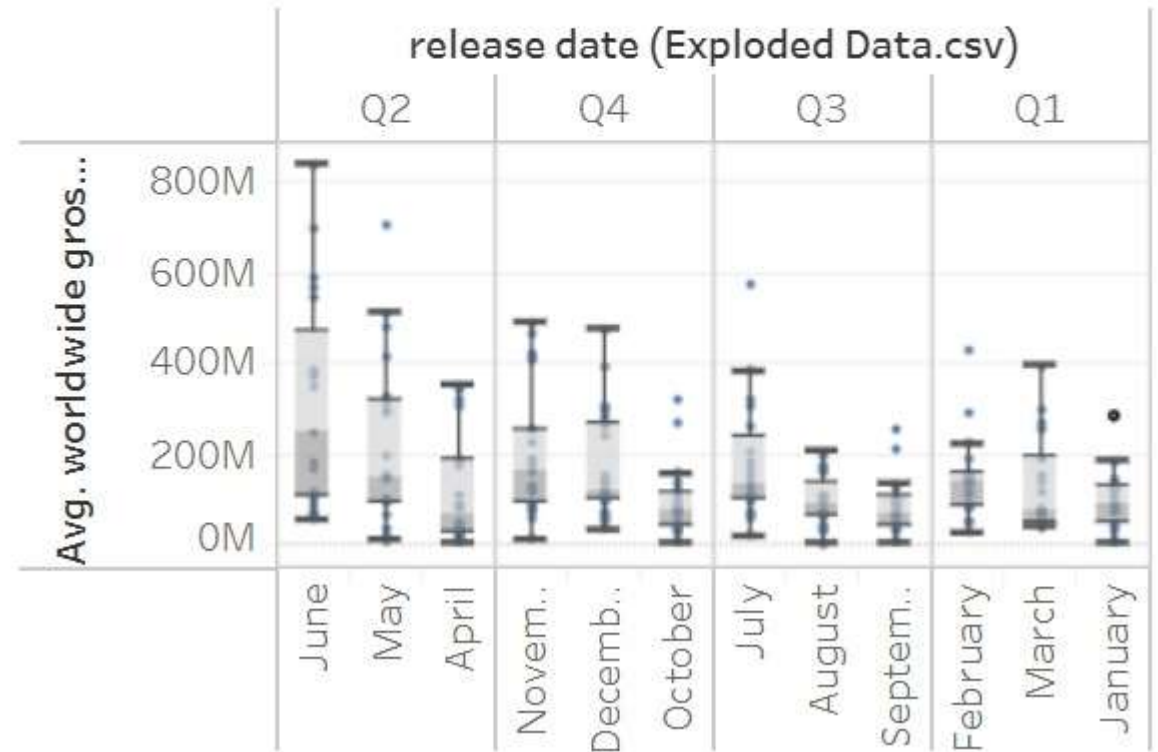


Based on the correlation plot we can conclude there is a positive correlation between production_budget and worldwide_gross



The second quarter outperforms the other quarters with June having the highest mean average worldwide gross based on the data we can take into account summer holidays which begin in June

Quarterly Genre release date against Average Worldwide gross



These well-liked genres help in maintaining a balanced budget while offering the best strategy. Projects become more financially feasible and appealing to a larger audience by concentrating on genre pairings and strategic budget management, which also increases the potential return gross.

Popularity amongst Genres



Conclusion

- Investing in these well-liked genres while maintaining a balanced budget offers the best strategy. Projects become more financially feasible and appealing to a larger audience by concentrating on genre pairings and strategic budget management, which also increases the potential return gross. This approach successfully manages the risks connected with large expenditures while striving for both critical and commercial success.
- It is also crucial to prioritize compelling content, powerful performances, and frugal spending. Box office results can be increased by utilizing strategic release timing, especially in the second quarter, when films typically do well. Furthermore, the studio will be better positioned for success in the competitive market by working with reputable studios like Paramount/DreamWorks, Buena Vista, Sony, and MGM and copying their success in popular genres.

Recommendations

- **Genre Selection:** Consider investing in action, drama, animation, scifi and adventure genre of movies as they show high popularity and vote counts and have promising returns. A movie can have more than just one genre; this guarantees more popularity and higher vote counts.
- **Production budget:** Although higher budgets have a positive correlation with higher grosses, maintaining a reasonable production budget is crucial, focus on factors like good storytelling, good performances and concrete market research as these factors contribute towards a movie popularity and its gross earnings.
- **Release timing:** Prioritize releasing films during Q2 (April–June) to capitalize on the historically higher median and broader range of worldwide gross revenues.
- **Studio collaborating:** Consider collaborating with the following studios: Paramount/DreamWorks(P/DW), Buena Vista (Disney)(BV), Sony and Metro-Goldwyn-Mayer(MGM) since their movies seem to show high performance on the success metrics.
- **Market research and localization:** conduct comprehensive market research to understand specific international market cultural preferences and nuances. Adapt the concept of movies, promotion campaigns, and strategic means of distribution to resonate in consonance with the target audience's cultural sensibility and reach maximum global appeal.

Special Thanks to the group members for making it an enjoyable project

- Savins
- Tracy
- Lilian
- Brian
- Charles
- Ledama

