Unveiling the Secrets of Box Office Success: A Comprehensive Analysis for Establishing a Profitable Film Business and Key Strategies for Microsoft's New Movie Studio.

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QUOTE

"There is no finish line. There are only mile markers."

– Michael Ventura, Founder of Sub Rosa

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OVERVIEW

The objective of this presentation is to provide actionable insights to Microsoft for their new movie production business by analyzing datasets to determine the types of movies that have been best sellers at the box office. The analysis will focus on exploring patterns and trends in the data to help Microsoft make informed decisions on the types of movies to produce in order to maximize box office success.

BUSINESS UNDERSTANDING

▶ Exploring box office success is critical for Microsoft's new movie studio because it helps to determine which types of movies have the potential to generate significant revenue and gain popularity among audiences. By analyzing the factors that contribute to box office success, Microsoft can make informed decisions on the types of movies to produce and allocate resources towards the areas that are most likely to yield a high return on investment.

▶ Research questions:

1. How does the title of a movie impact its box office success?

2. What is the relationship between a movie's production budget and its box office revenue?

3. How does a movie's GENRE, as measured by its popularity and vote count, affect its box office success?

DATA UNDERSTANDING

Data Collection:

▶ The 'bom.movie_gross.csv' dataset was obtained from Box Office Mojo and contains information on movie titles, studios, domestic and foreign gross earnings, release dates, and genre for movies released in North America since 2010.

▶ The 'tmdb.movies.csv' dataset was obtained from The Movie Database and contains information on movie titles, genres, release dates, runtime, revenue, and budget for movies released since 1960.

▶ The 'tn.movie_budgets.csv' dataset was obtained from The Numbers and contains information on movie titles, production budgets, and worldwide gross revenue for movies released since 1915.

Data Cleaning and Preprocessing:

Used jupyter notebooks for analysis

▶ Some columns in the datasets contained a large number of missing values and were therefore removed from the analysis to avoid bias.

▶ In cases where there were only a few missing values in a column, the missing values were replaced with the mean or mode of the column values.

DATA ANALYSIS: Findings for Analysis BY Movie Titles

▶ After analyzing the dataset, we found that the top-performing movies by domestic gross revenue were mostly blockbuster franchise titles. Out of the top 100 movies, 43% of them were from a franchise, and the remaining 57% were standalone titles.

▶ The visualization on this slide shows the top 100 movies by domestic gross revenue. As we can see, movies such as "Star Wars: The Force Awakens," "Avatar," and "Black Panther" were some of the highest-grossing movies. This finding suggests that Microsoft's new movie studio could benefit from creating movies that belong to popular franchise titles.
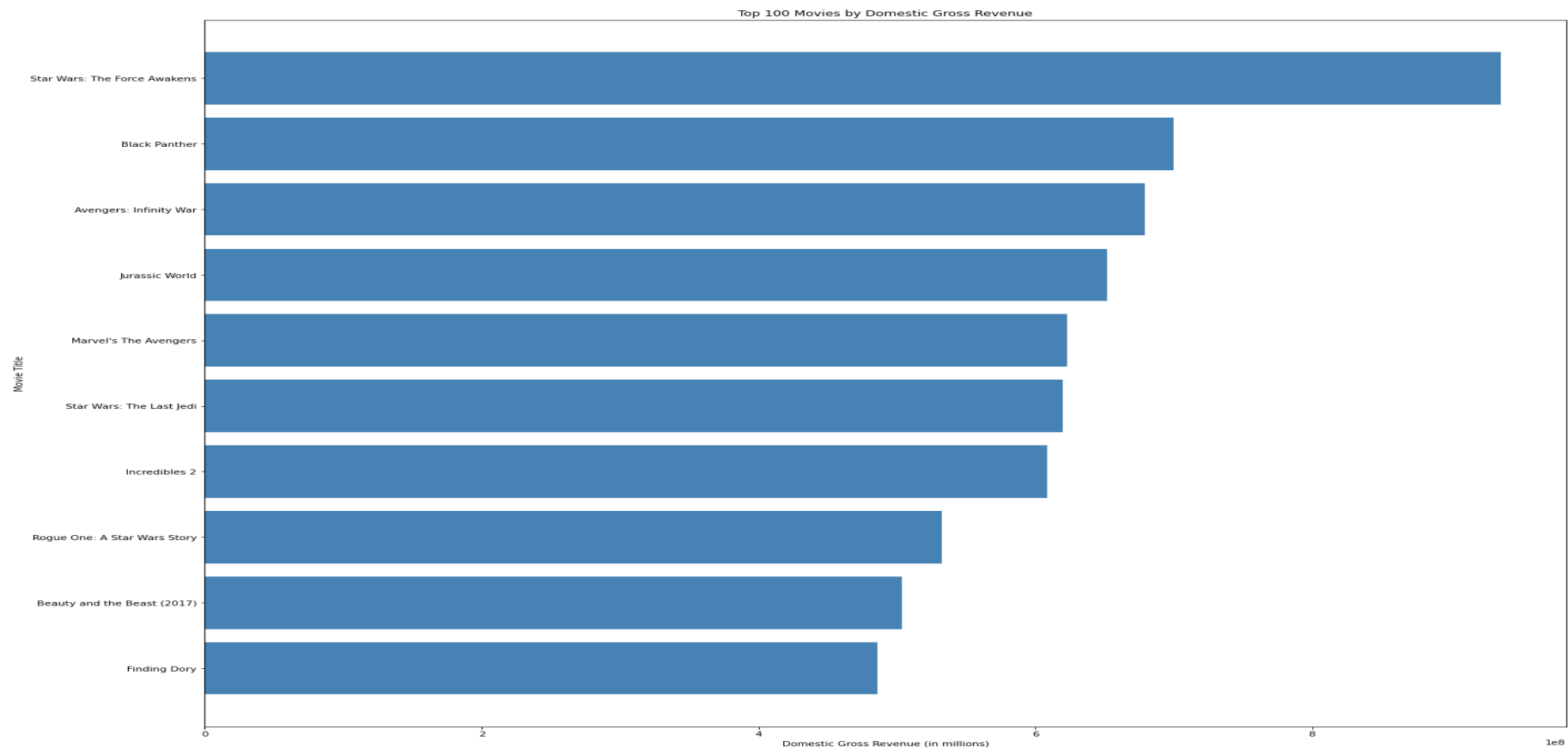
RECOMMENDATION BASED ON THIS ANALYSIS

▶ Microsoft should consider acquiring or creating content based on popular franchise titles.

INSIGHT

▶ Creating movies based on established and popular franchise titles could potentially lead to high box office success.

ANALYSIS BY MOVIE TITLE VISUAL-TOP TEN TITLES

FINDINGS FOR ANALYSIS BY PRODUCTION BUDGET

▶ Analysis was done on the top 100 movies with the highest production budget.

▶ There is a positive correlation between the two variables, indicating that movies with higher production budgets tend to generate more revenue worldwide.
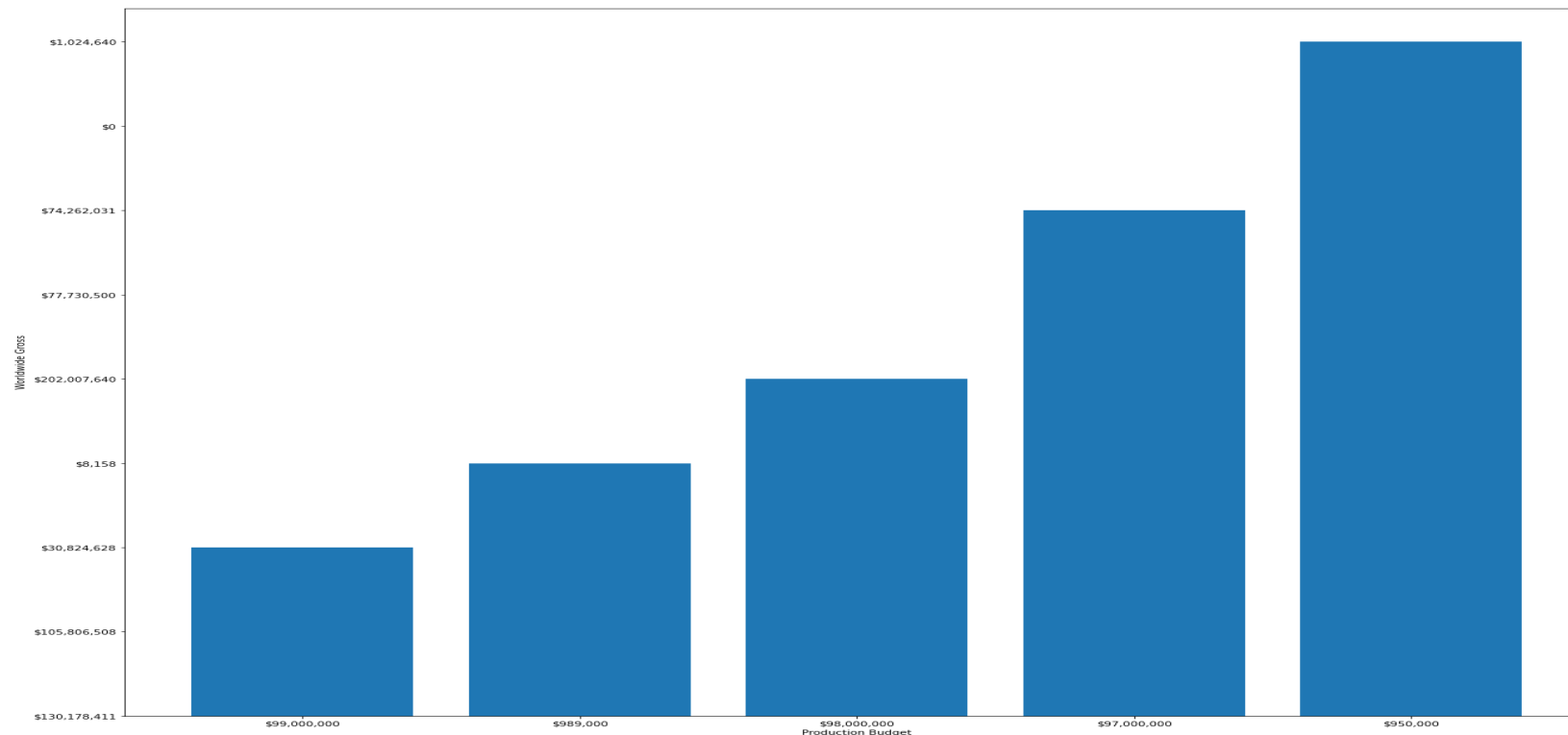
RECOMMENDATION

▶ Investing in higher production budgets can increase the chances of generating higher revenue. The amount of money invested in a movie's production plays a significant role in the movie's success.
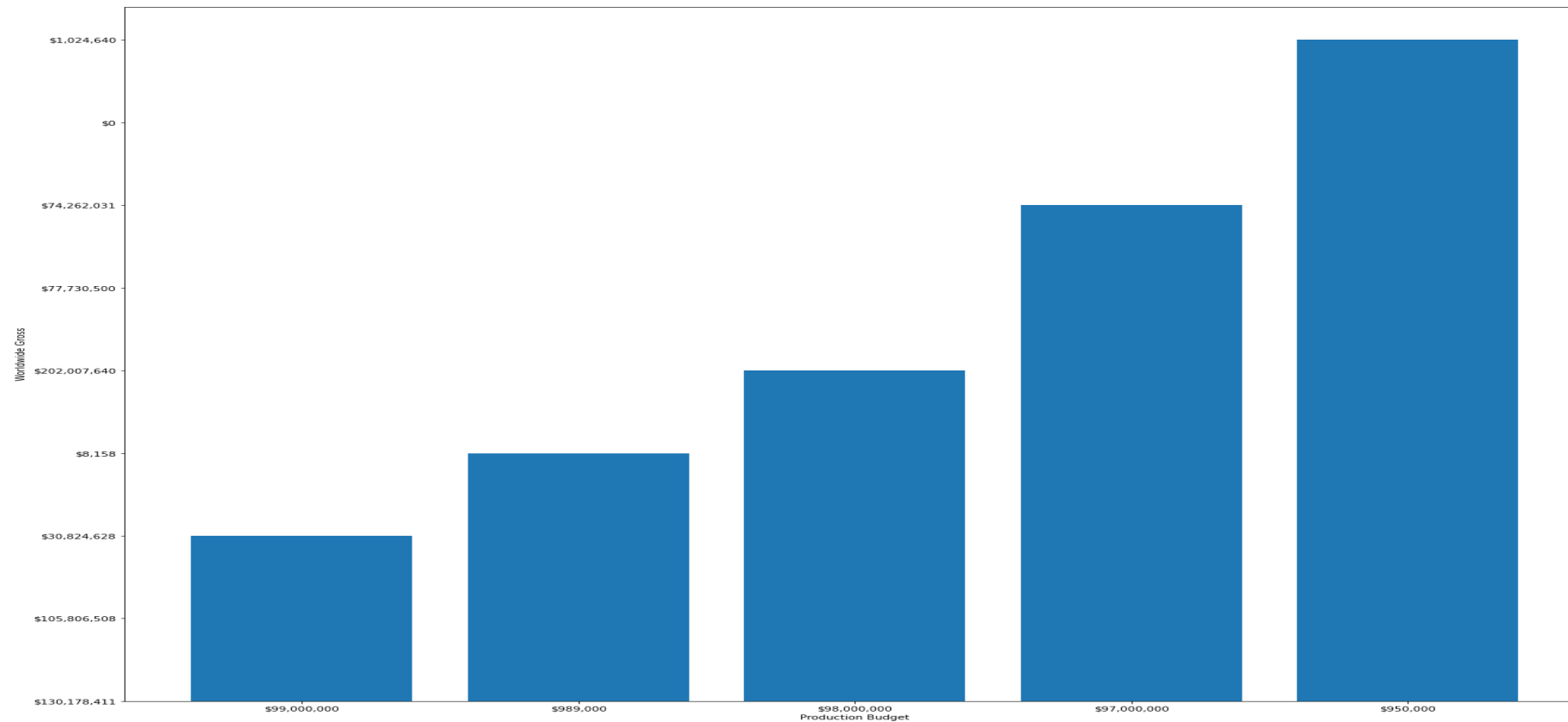
INSIGHT

▶ Investing more money in movie production increases the chances of success at the box office.. However the budget should be well distributed between production, marketing, distribution, and overall quality of the movie to maximize its success.

ANALYSIS BY PRODUCTION BUDGET-VISUAL FOR TOP 10 PRODUCTION BUDGETS & DOMESTIC GROSS REVENUE

FINDINGS FOR ANALYSIS BY GENRE POPULARITY

▶ The data was grouped by genre and the mean popularity was calculated. The genres were then sorted by popularity in descending order, and the top 100 genres were selected.

▶ The most popular genres at the box office are Action, adventure, crime, war and fantasy

▶ The least popular genres are Music, Documentaries, TV movie ,Western and Family.

RECOMMENDATION

Create more content around the most popular genres like action and adventure. The more popular a genre is, the more it will resonate with a bigger audience, hence do well in the market.
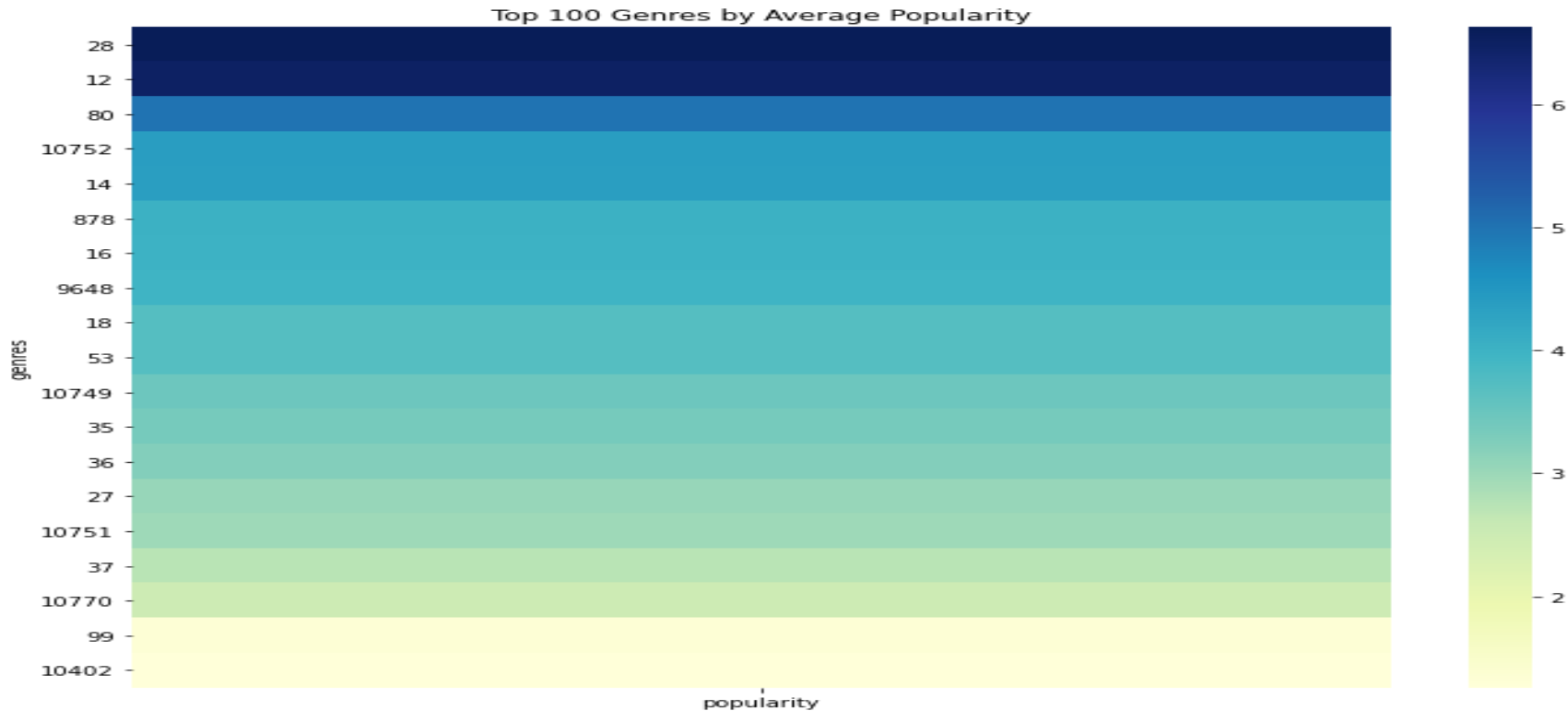
FINDINGS FOR ANALYSIS BY GENRE POPULARITY-VISUAL

FIRST WE LOOK AT GENRE CODES:

CODE	GENRE
28	ACTION
12	ADVENTURE
16	ANIMATION
35	COMEDY
80	CRIME
99	DOCUMENTARY
18	DRAMA
10751	FAMILY
14	FANTASY
36	HISTORY
27	HORROR
10402	MUSIC
9648	MYSTERY
10749	ROMANCE
878	SCIENCE FICTION
10770	TV MOVIE
53	THRILLER
10752	WAR
37	WESTERN

FINDINGS FOR ANALYSIS BY GENRE POPULARITY-VISUAL

-6-MOST POPULAR
-2-LEAST POPULAR

Top 100 Genres by Average Popularity
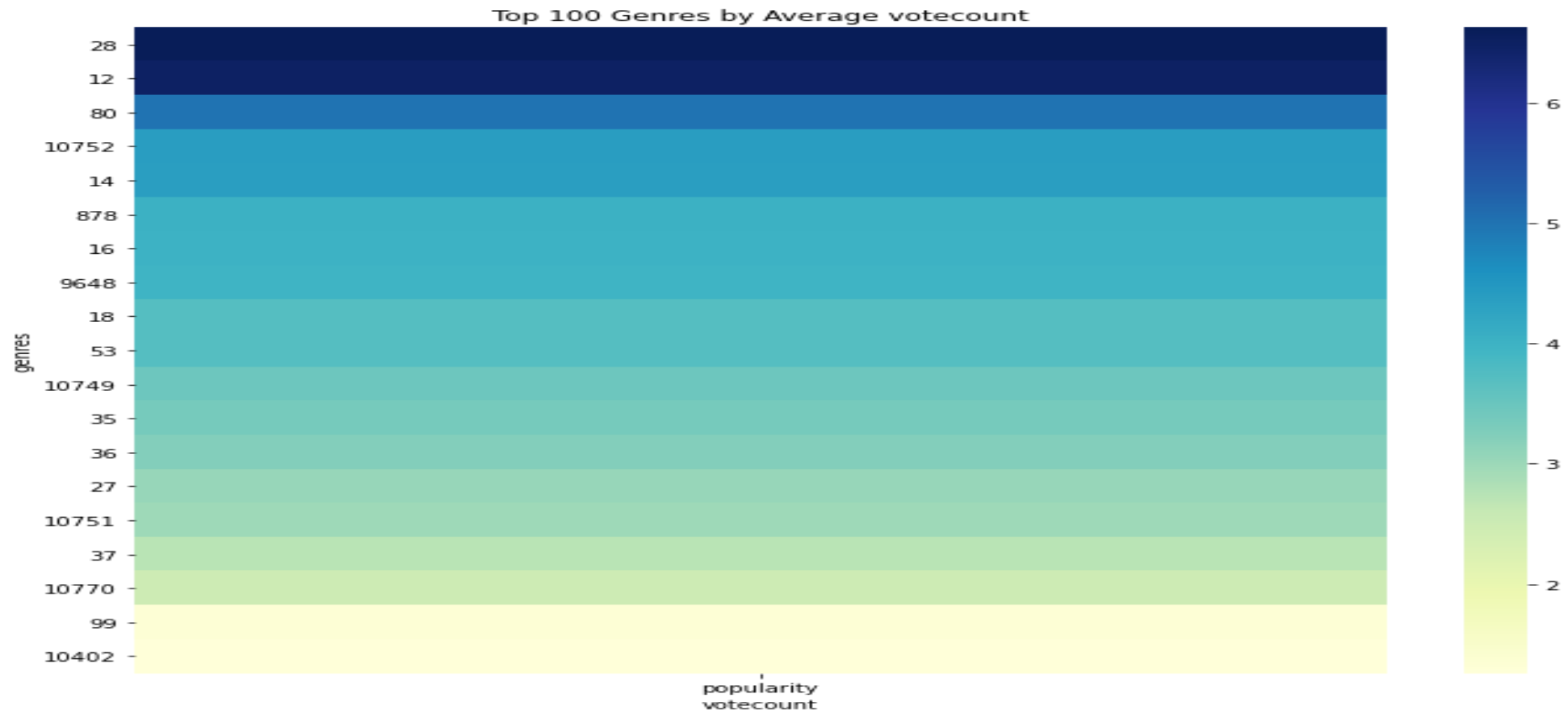
FINDINGS FOR ANALYSIS BY GENRE VOTE COUNT

▶ The data was grouped by genre and the mean vote count was calculated. The genres were then sorted by popularity in descending order, and the top 100 genres were selected.

▶ The genres with highest vote count at the box office are Action, adventure, crime

▶ The least popular genres are Music and Documentaries

RECOMMENDATION

Create more content around the most popular genres like action and adventure. The more popular a genre is, the more it will resonate with a bigger audience, hence have good ratings at the box office.

FINDINGS FOR ANALYSIS BY GENRE VOTECOUNT-VISUAL

Top 100 Genres by Average votecount

THANK YOU!

- Thank you for joining me on this data analysis journey. I hope that you found the insights and visualizations presented to be informative and thought-provoking. Please feel free to ask any questions or seek further clarification. Remember, data analysis is a powerful tool for making informed decisions, and I encourage you to continue exploring and utilizing its potential. Thank you once again for your time and attention..

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