AN ANALYSIS TO INVESTIGATE THE KIND OF MOVIES THAT ARE PERFORMING WELL AT THE BOX OFFICE IN TERMS OF RATINGS, FOREIGN GROSS AND INSIGHTS.

By Isaac Munyaka

Business Understanding

- Microsoft sees all the big companies creating original video content and they want to get in on the fun.

- They have decided to create a new movie studio, but they don't know anything about creating movies.

- I am therefore charged with exploring what types of films are currently doing the best at the box office and then translate those findings into actionable insights that the head of Microsoft's new movie studio can use to help decide what type of films to create.

Problem Statement

- Microsoft stakeholders and top management are finding it hard understanding the specific movies that are performing well in terms of ratings, foreign gross, insights such as number of votes and genres that performed well.

- Without understanding these metrics it will be hard for them to create original video content through their movie studio.

- They are not sure where to start in order to investigate these metrics.

Project's goal

- It is focused on investigating the above metrics in order to come up with a decisive action to enable the microsoft studio to create only movies that are going to perform well internationally and be a good investment plan.

- Only the kind of movies that attract great insights through high number of votes, high foreign gross and higher ratings will be prioritized in the production studio.

Data Understanding

- In this analysis I used three different datasets which are from Box office Mojo, IMDB SQLite Database and The movie Database.

- The datasets will be cleaned before performing exploratory data analysis.

- The datasets were chosen since they have data on foreign gross, domestic gross, genres, insights through number of votes the movies attracted and the movie ratings.

- This will present a clear picture of how different movies performed and thus lead to the stakeholders and top management at Microsoft making informed decisions before production at the new movie studio.
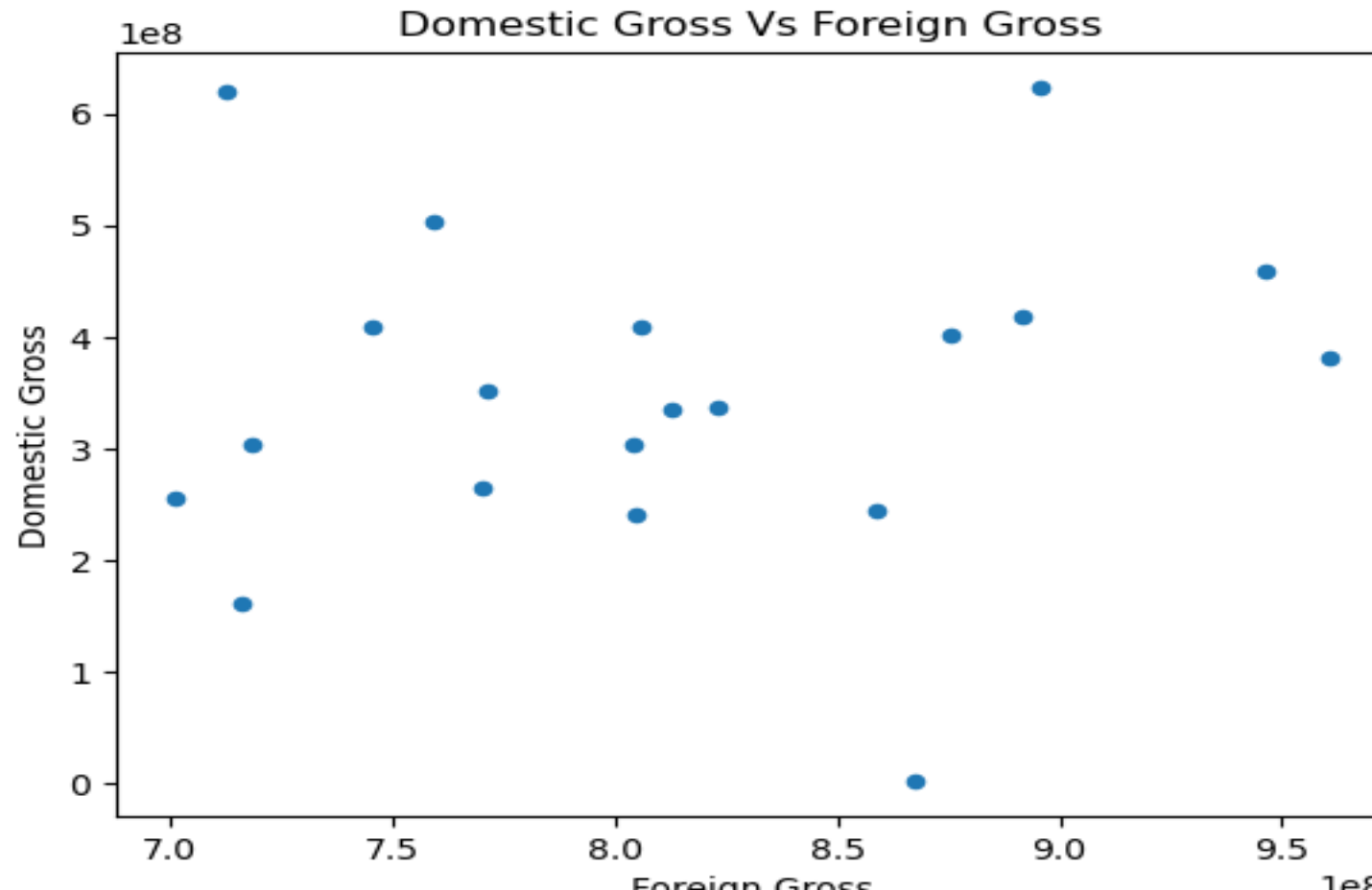
Checking and removing missing values

- Missing values can occur for a variety of reasons, including measurement error, data entry errors and non-response.

- The presence of missing data can cause biased estimates, inaccurate results, misleading visualizations as well as a loss of information.

- By checking, identifying and addressing missing values before analysis, I will be able to increase the accuracy and reliability of my results
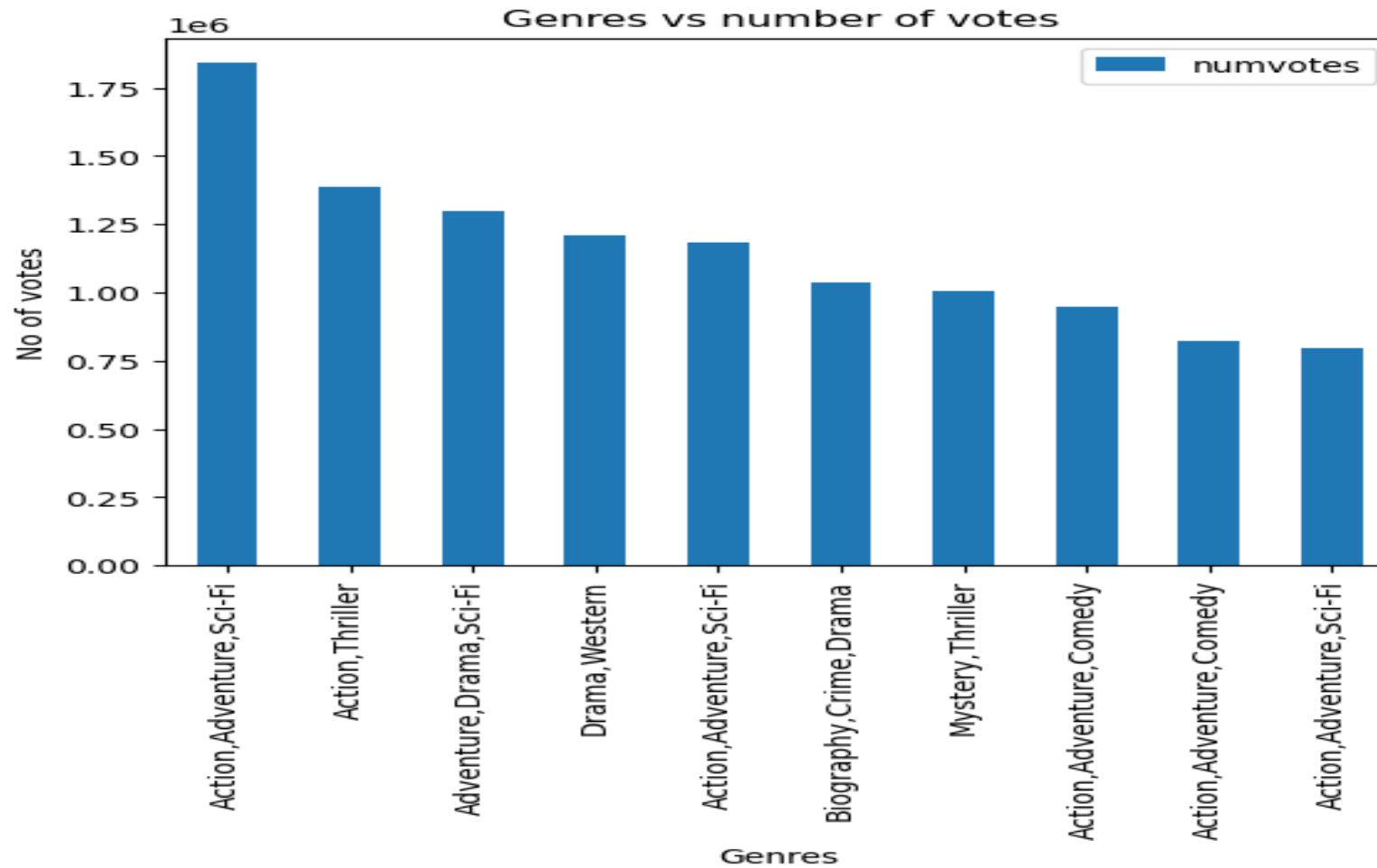
Checking for duplicates in the data

- By identifying and removing duplicates, I want to ensure that each observation is represented only once.

- This will help to ensure data accuracy, efficiency, and consistency, and thus help in obtaining reliable and meaningful insights from the data.
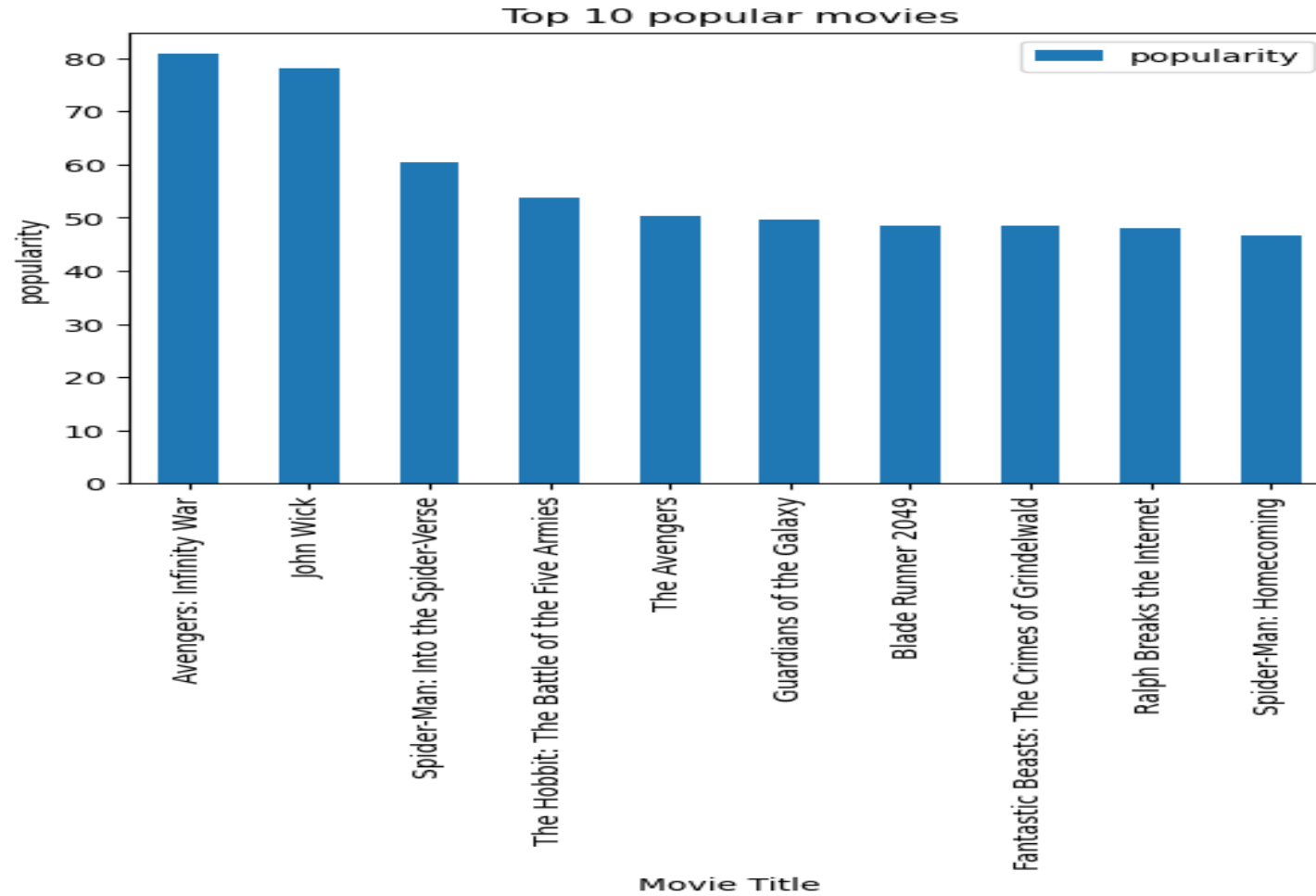
EXPLORATORY DATA ANALYSIS

Identifying the relationship between foreign gross and domestic gross

Top 15 movie genres with many votes

Top 10 popular movies

FINDINGS AND CONCLUSIONS

1. There was low positive correlation between domestic gross and foreign gross, which meant there little relationship between the two.

   Movies released between 2011 to 2018 earned the highest foreign gross.

2. It was observed that Action, Adventure, Sci-fi, Thriller, Drama, Comedy and Crime attracted a lot of insights from different people who voted.

3. It was observed that sci-fi and action movies were the most popular, with Avengers: Infinity war topping with 80.773% popularity followed closely by John Wick with 78.123% and Spider Man: Into the spider verse with 60.534% popularity.

4. The final observation was that there was low positive correlation between number of votes and average rating of movies.

RECOMMENDATIONS

1.) It would be imperative for the stakeholders and top management at Microsoft to prioritize production of movies similar to those released between the year 2011 and 2018 since they earned the highest foreign gross.

 The top four earners included;

Harry potter and the deathly hallows part 2 (2011), Avengers: Age of Ultron (2015), Marvel's The Avengers (2012), Jurrasic World: Fallen Kingdom (2018)

Since the top four earners were all Sci-fi movies, then Microsoft would have a great return on investment by creating Sci-Fi movies.

Higher foreign gross means there is also higher domestic sales, but higher domestic gross does not equate to higher foreign gross since from the scatter plot there is low positive relationship between the two variables.

RECOMMENDATIONS CONT'

2.) For Microsoft studio to create awareness of their existence and new products, it is recommended they focus more on Sci-Fi, Action, Adventure, Thriller, Drama, Crime and Comedy since they attracted the most votes from movie fans leading to high insights.

3.) For Microsoft to gain popularity and return on investments they should prioritize Sci-fi and Action movies such as Avengers: Infinity war topping with 80.773% popularity, John Wick with 78.123% and Spider Man: Into the spider verse with 60.534% popularity.

This would ensure that the created movies at Microsoft studio attract great popularity leading to high international sales.

END OF PRESENTATION

ANY QUESTIONS?

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THANK YOU.