

UNVEILING BOX OFFICE DATA-DRIVEN INSIGHTS FOR MICROSOFT STUDIOS

EXPLORATORY DATA ANALYSIS OF MOVIE PERFORMANCE

TABITHA BERUM

22, MARCH 2024

INTRODUCTION

- ❑ MICROSOFT STUDIOS WANTS TO PRODUCE ORIGINAL VIDEO CONTENT, BUT THEY HAVE NO IDEA HOW TO GO ABOUT DOING SO. THE GOAL OF THIS ANALYSIS IS TO EXPLORE WHAT TYPES OF FILMS ARE DOING THE BEST AND WILL MOST LIKELY GENERATE REVENUE POST PRODUCTION.
- ❑ "CONSIDER THE BOX OFFICE AS THE MOTION PICTURE INDUSTRY'S REGISTRY. THE MONEY MADE FROM TICKET SALES IS RECORDED AT THE BOX OFFICE WHEN CUSTOMERS PURCHASE MOVIE TICKETS. THE INCOME FROM A FILM INDICATES ITS SUCCESS AND LEVEL OF POPULARITY. SIMILAR TO HOW RETAIL ESTABLISHMENTS MONITOR SALES AT THEIR CHECKOUT COUNTERS, THE BOX OFFICE ASSESSES THE FINANCIAL SUCCESS OF FILMS SHOWN IN THEATERS.
- ❑ OBJECTIVE : TO ANALYZE MOVIE DATA AND IDENTIFY FACTORS ASSOCIATED WITH COMMERCIAL SUCCESS.

DATA ACQUISITION AND EXPLORATION

Data used:

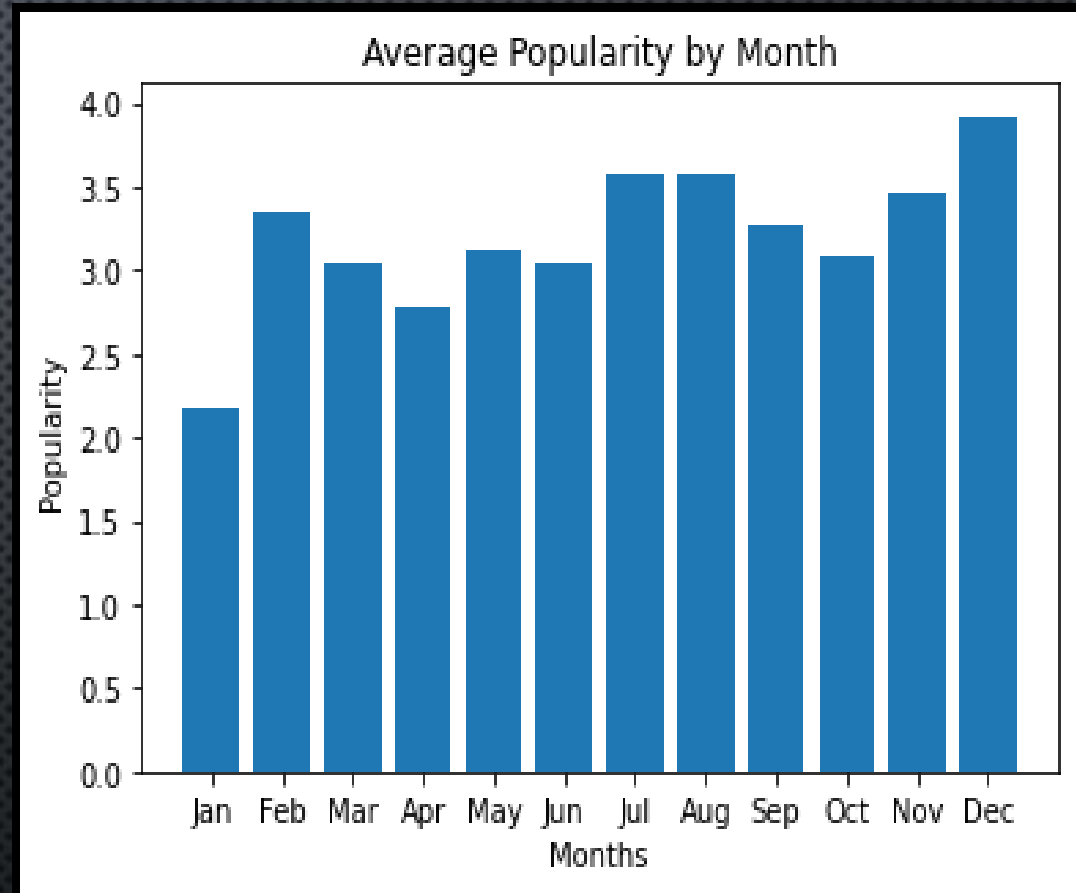
- ☐ IM.db database
- ☐ The numbers
- ☐ The MovieDB
- ☐ Box office Movies

Data cleaning steps:

- ☐ Checking for missing values
- ☐ Checking for duplicated values
- ☐ Sorting and group a dataframe by one of the values of your choice
- ☐ Using descriptive statistics to understand the maltitude of the data i.e check for mean, median, standard deviation.

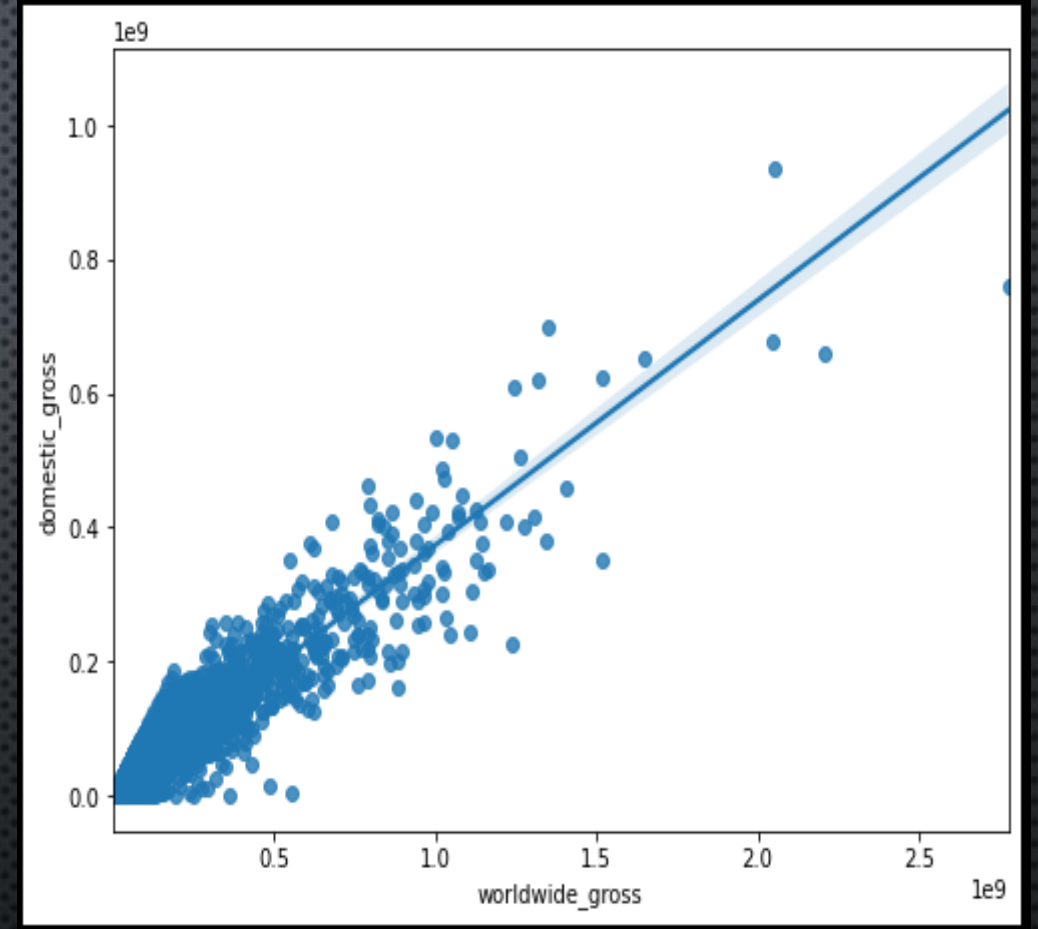
BAR GRAPH PLOTTING AVERAGE POPULARITY AGAINST RELEASE MONTH

Most popular month: December
fairly popular months: August, July,
February, November.
Least popular month: January , April.



Scatter plot showing relationship between domestic gross and worldwide gross.

There is a strong correlation between domestic gross and world wide gross

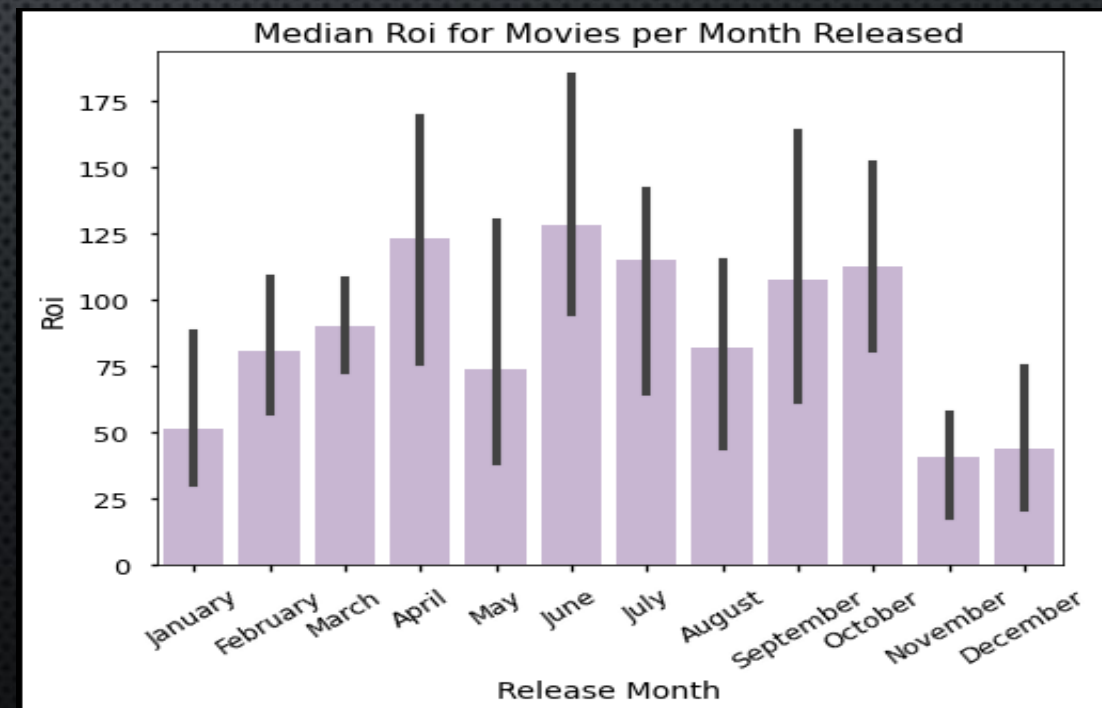
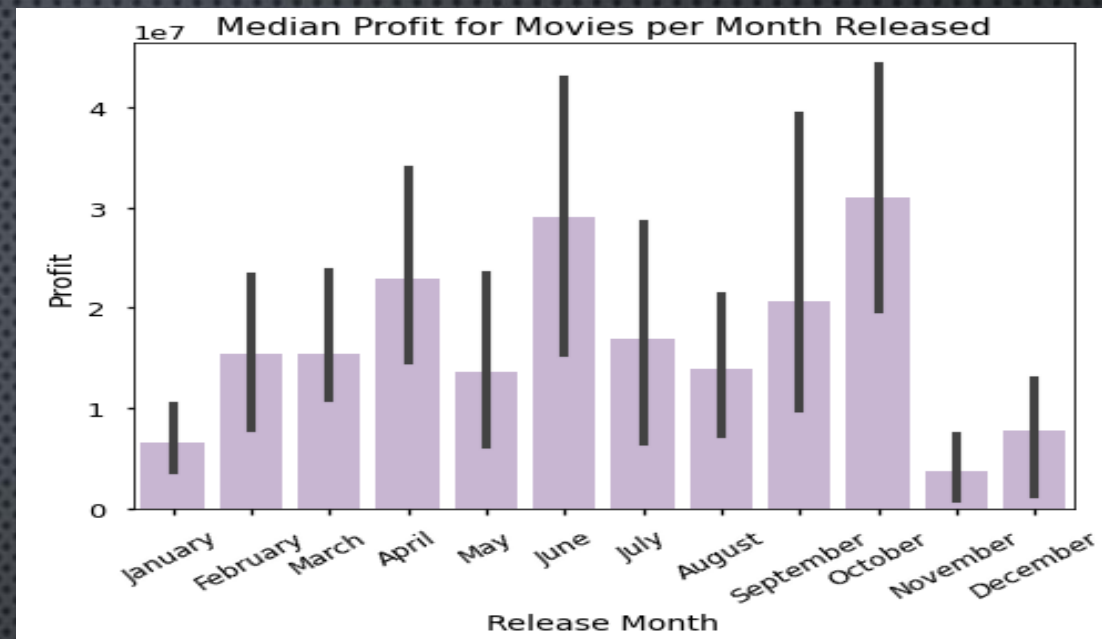


Seaborn graph plotting both median profit and median roi (return on investment) against month released.

- ❑ Highest (ROI) month: June
- Highest profit month: October
- These are the safest months to release a movie due to its lower confidence interval as well.

- ❑ The overall idea is that just before the busy holiday season (Christmas, thanksgiving and new years there's).

- ❑ Lowest ROI month: November, December and January.
- Lowest profit month: November, December, January



CONCLUSION:

- ❑ It is safe to say that release month hugely impacts the sales of movies. This can be seen from the movie popularity test that was done among the target audience.
- ❑ To plan production and post production, we can produce movies but release them on the months that are optimally favoured by audiences who are push the movie industry to greater heights.

RECOMMENDATION

- ❑ In terms increasing client base, Microsoft should release movies in the months of February, July, August and December.
- ❑ For major profits and huge return on investment the focus should be on the months of June, October and April.
- ❑ Target market doesn't matter as much since both domestic and worldwide markets generate a substantial amount of revenue on a higher scale of 175 million dollars.