

MICROSOFT MOVIE STUDIO

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GITHUB REPOSITORY: <https://github.com/MKC247/dsc-phase-1-project-Malone.git>

PROJECT OVERVIEW

For this project, you will use exploratory data analysis to generate insights for a business stakeholder.

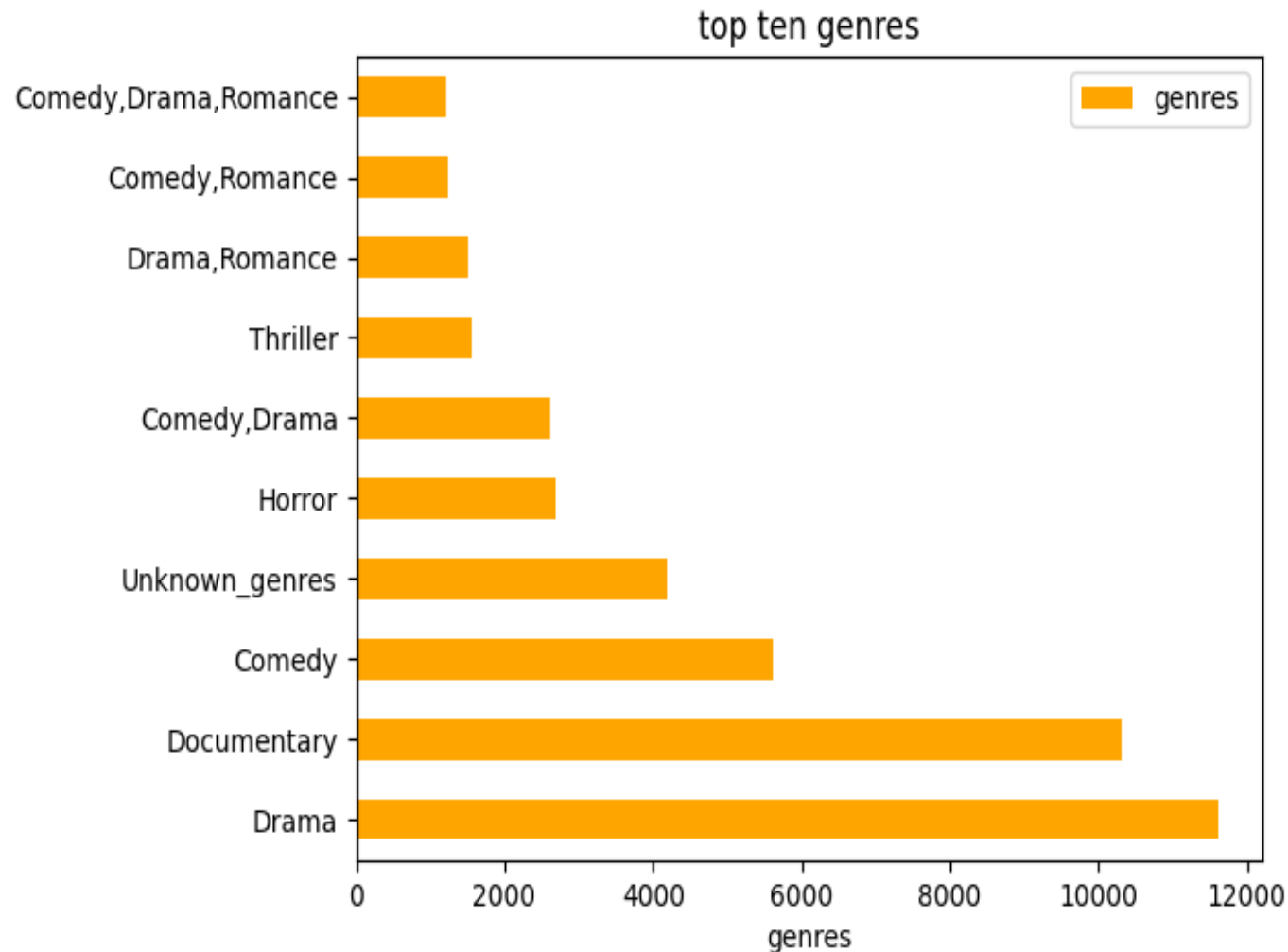
BUSINESS PROBLEM

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. You are charged with exploring what types of films are currently doing the best at the box office. You must 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.

DATA

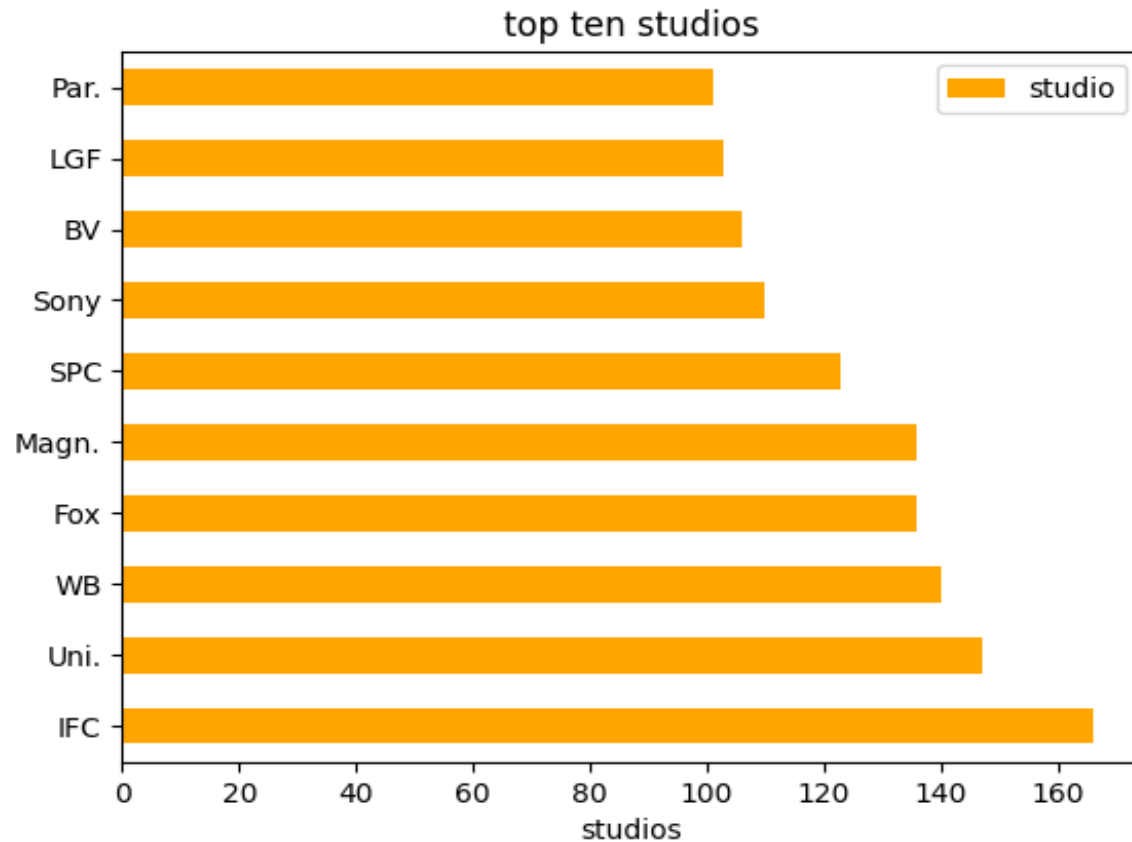
- In the folder zippedData are movie datasets from:
- <https://www.boxofficemojo.com/>. <https://www.imdb.com/>. <https://www.rottentomatoes.com/>. <https://www.themoviedb.org/>. <https://www.the-numbers.com/>. It is up to you to decide what data from this to use and how to use it. If you want to make this more challenging, you can scrape websites or make API calls to get additional data. If you are feeling overwhelmed or behind (e.g. struggled with the Phase 1 Code Challenge), we recommend you use only the following data files:
- imdb.title.basics
- imdb.title.ratings
- bom.movie_gross

RESULTS



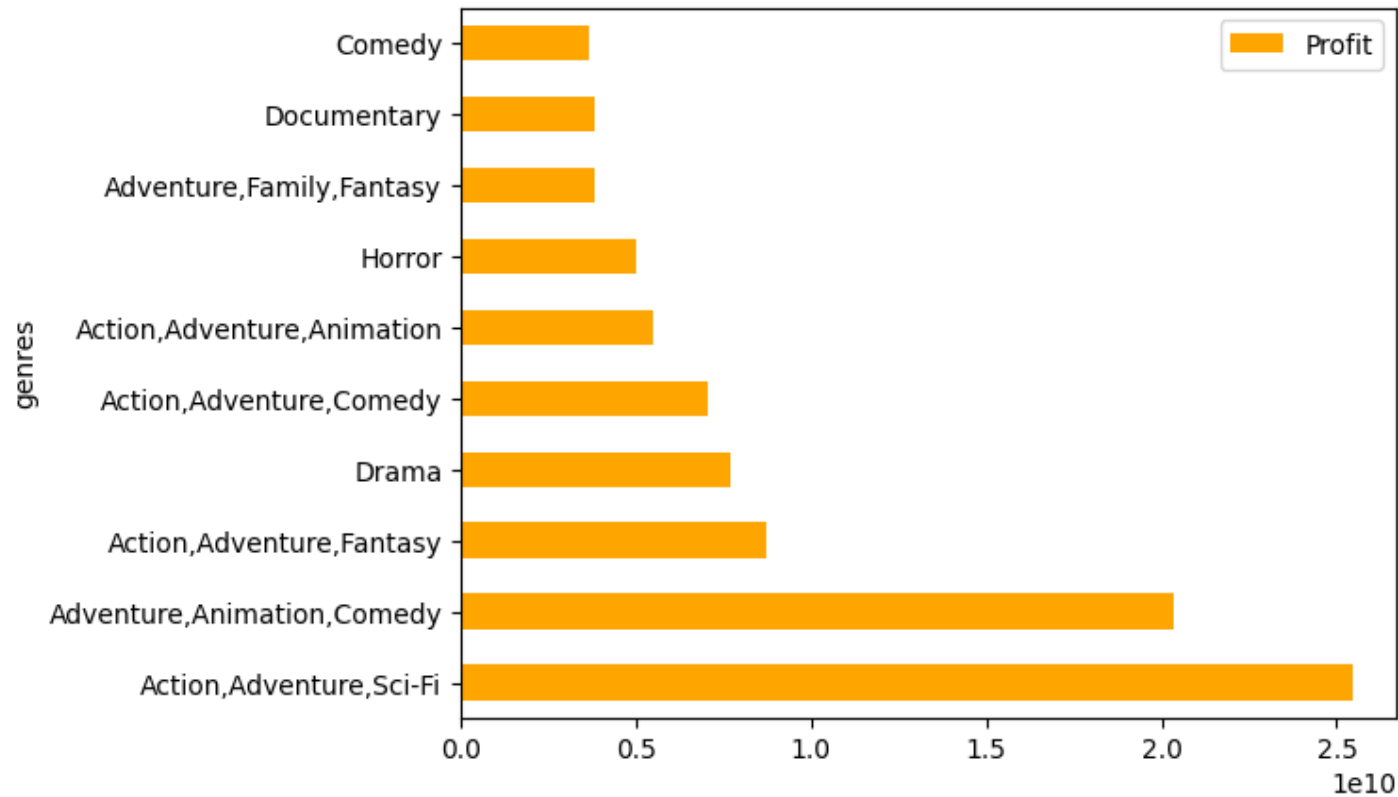
This is a Histogram showing top 10 genres. Drama appears to be the top leading genres among the list of 10 top genres.

2. Visualizing top 10 studios



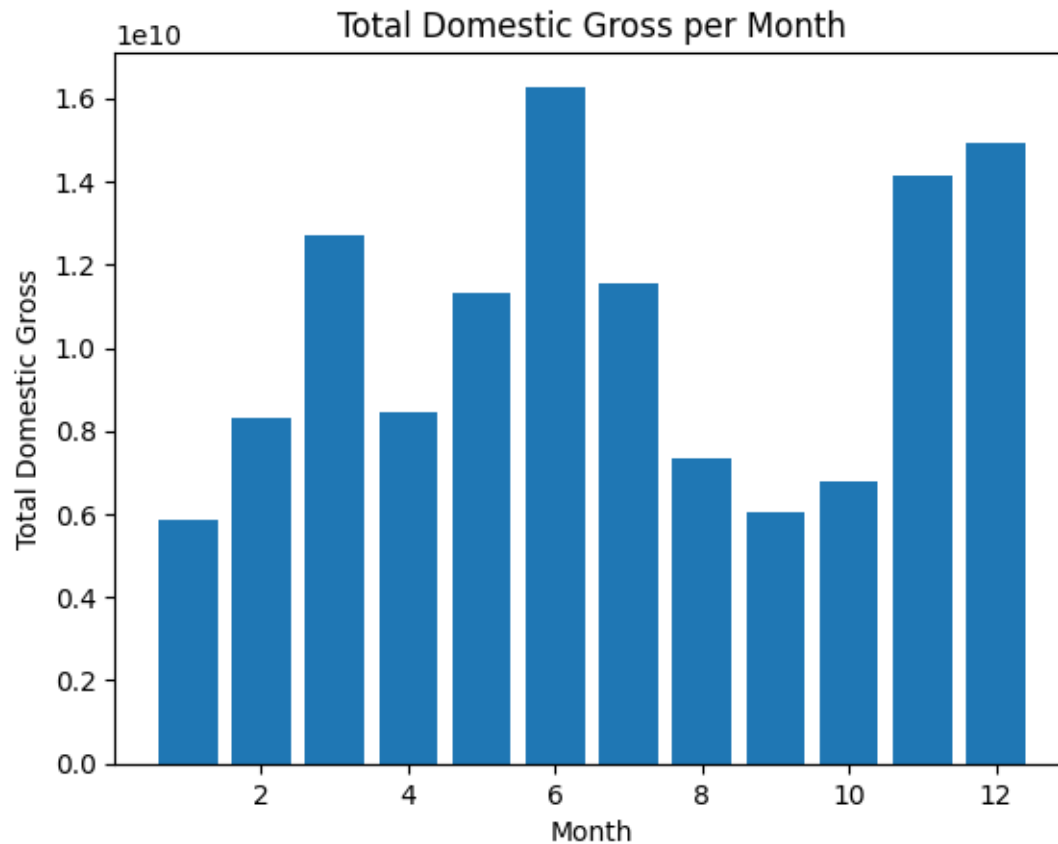
This is a histogram to show top 10 studios. IFC turns out to be the top studio in the list.

3. Visualizing top profitable genres



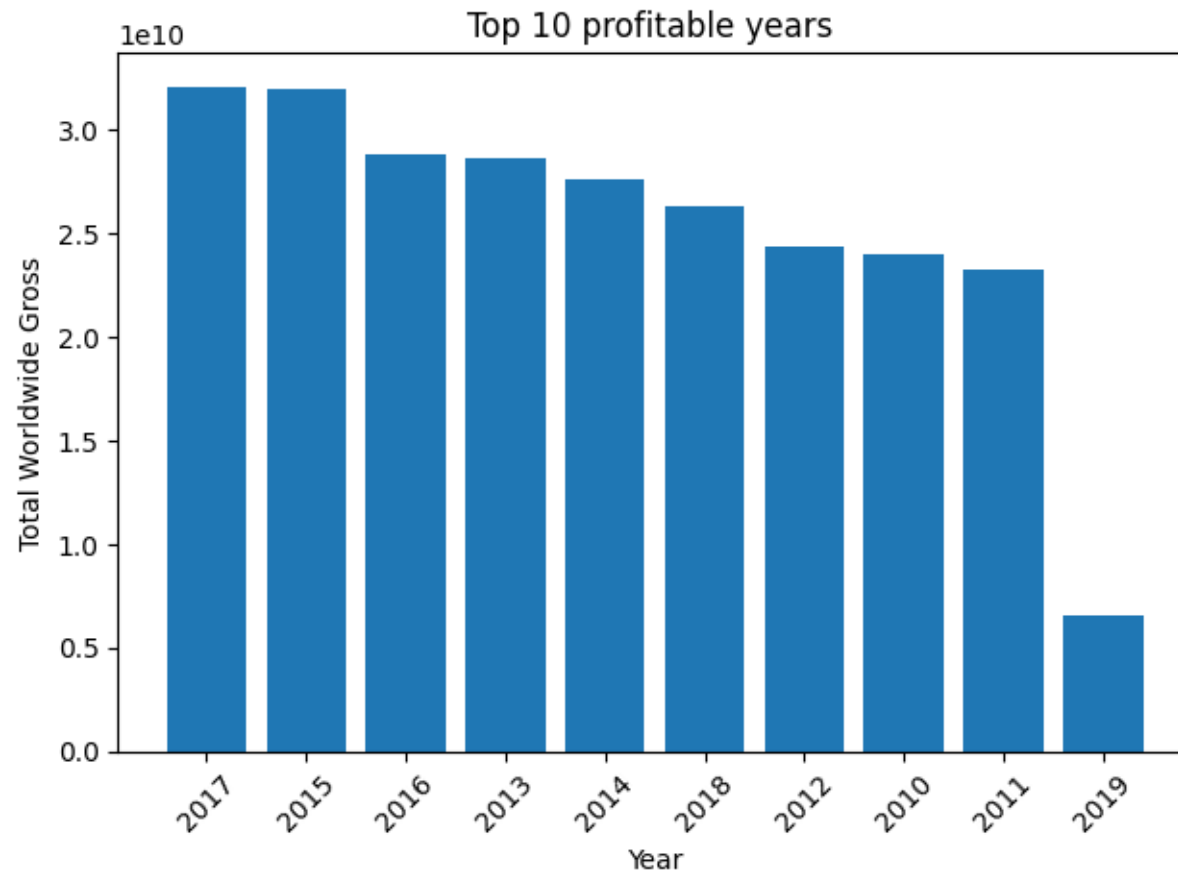
This is a histogram showing the top 10 genres and Action, Adventure, Sci-Fi is the most profitable genre.

4. Visualizing Total Domestic Gross per month



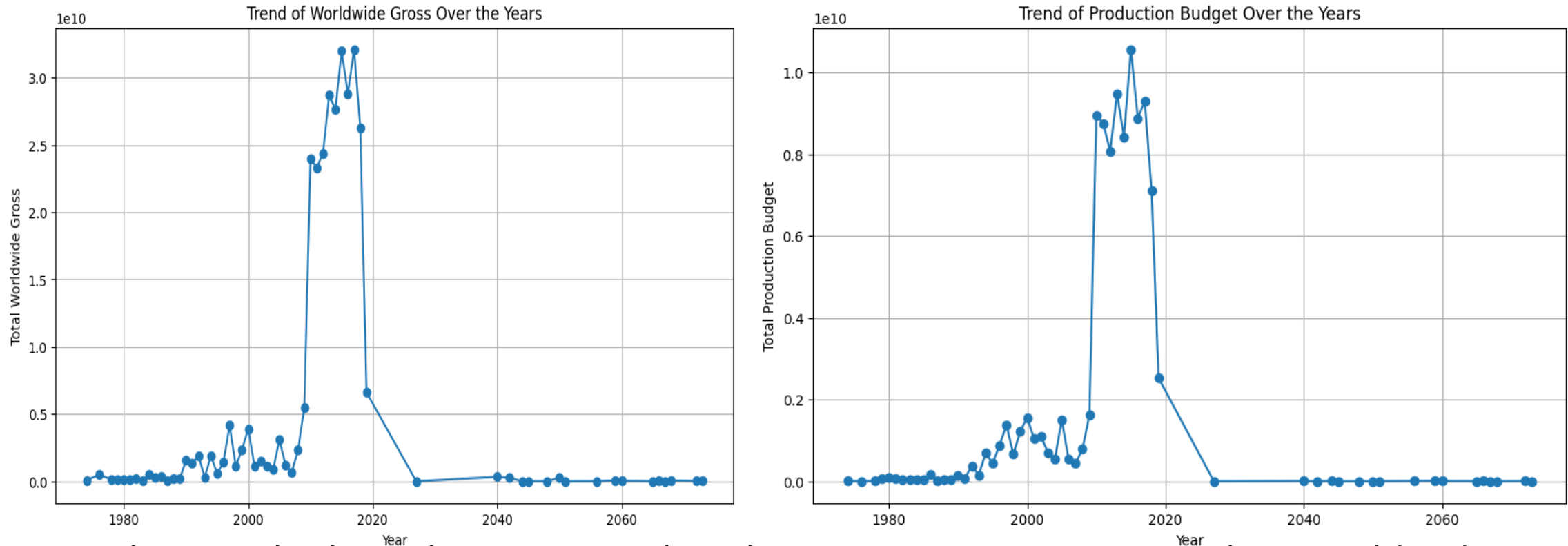
This is a histogram showing the total domestic gross per month. June was the highest profitable month and November and December were also among the highly profitable months.

5. Visualizing the most profitable years



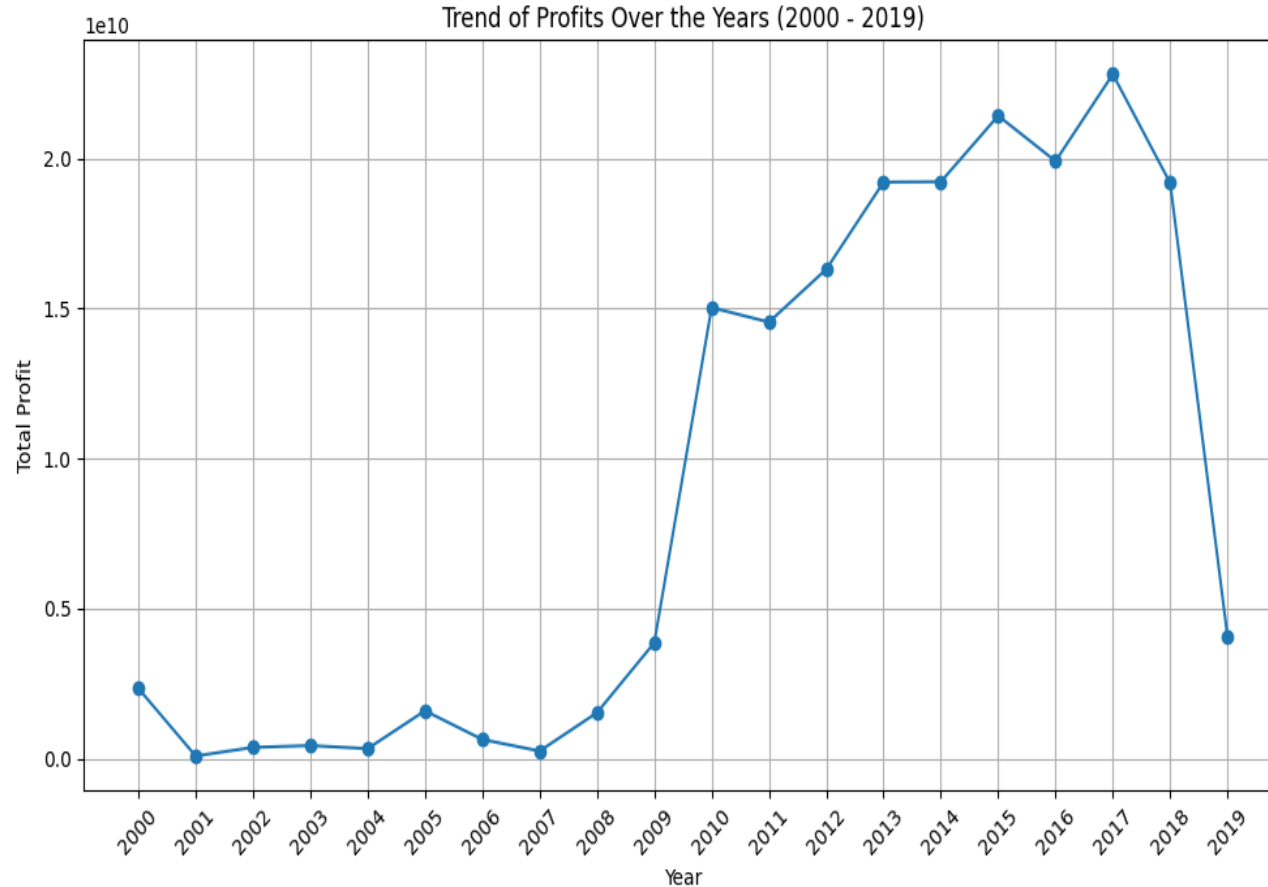
This is a histogram showing the most profitable top ten years. 2017 was the most profitable year followed closely by 2015. 2019 was the least profitable year.

6. Visualizing the trends of worldwide gross and production budget



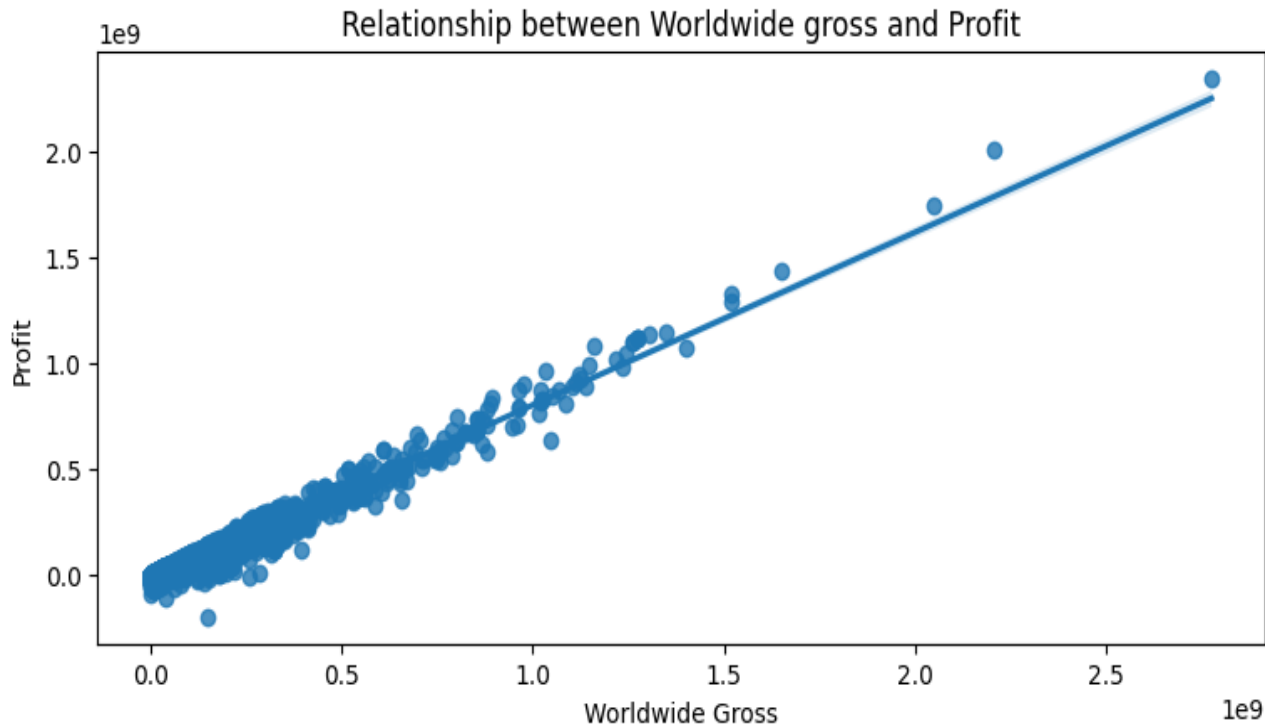
Looking at the line plots, we see that there is a progressive growth in worldwide gross and production budget over the years until 2019 when these factors began to dip. Worldwide Gross and Production budget began to dip during the same years when profits began to dip.

7. Visualizing the trends of profits over the year



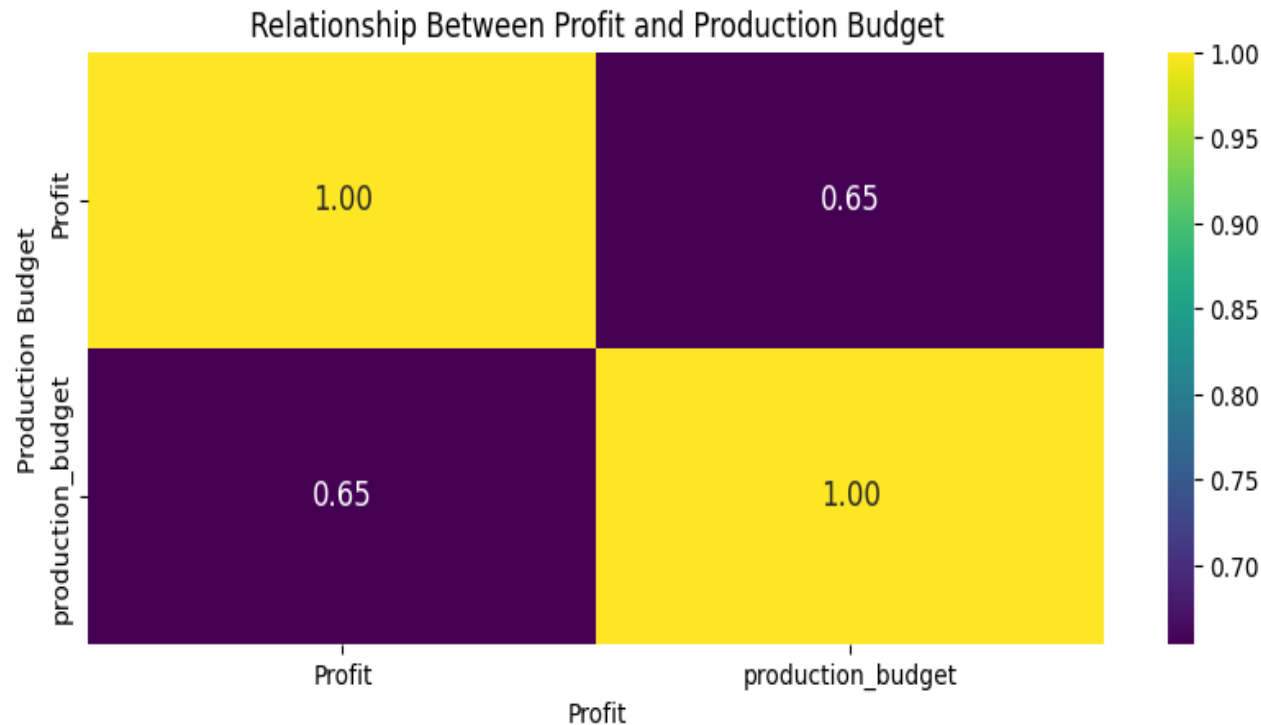
This is a line plot showing the trend of profits over the years between 2000 and 2019. There is an increase in profit from 2000 until 2017 when it began to dip towards 2019.

8. Visualizing the trends of worldwide gross and profit



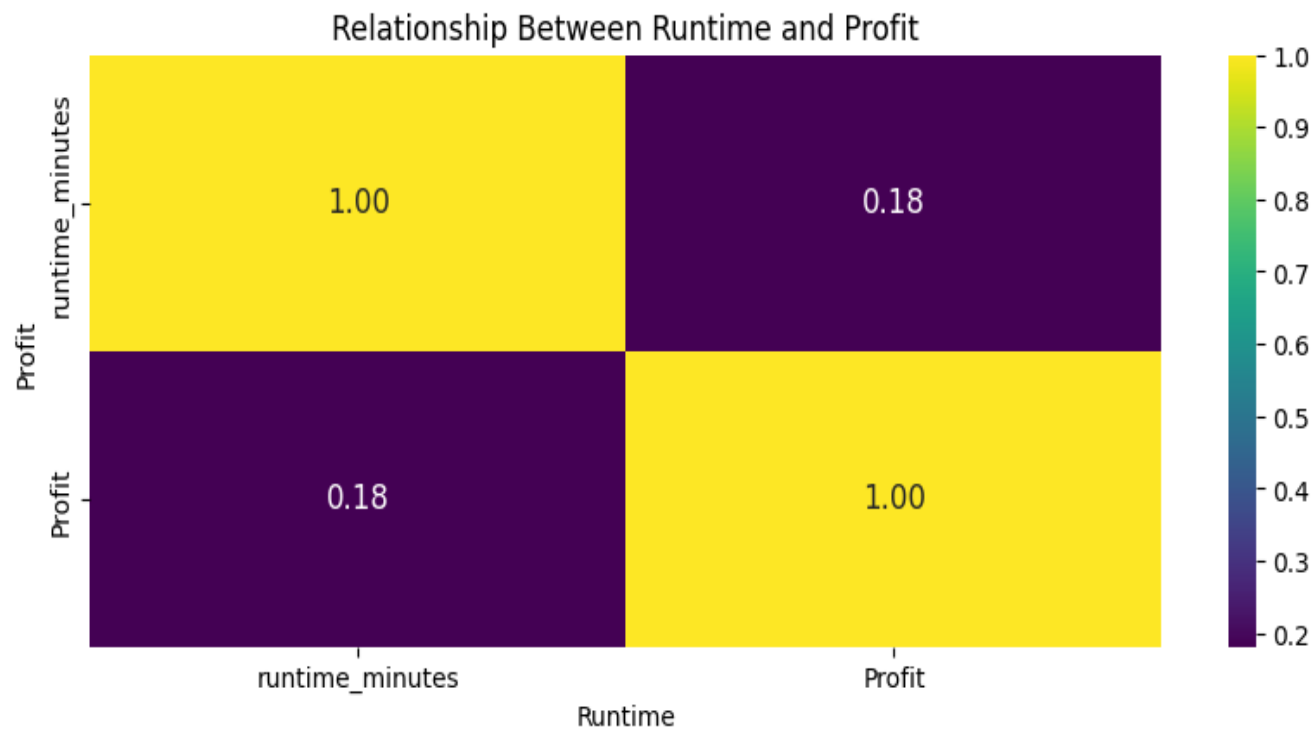
This is a scatter plot showing the correlation between Worldwide gross and Profits. There is a positive correlation which means as Worldwide gross increases the profits increase.

9. Visualizing heatmap correlation between profit and production budget



This is a heatmap correlation showing the correlation between profit and production budget. There is a positive correlation of 0.65 showing that as production budget increases, profits increase.

10. Visualizing heatmap correlation between runtime and profit



This is a heatmap correlation showing the correlation between profit and runtime. There is a negative correlation of 0.18 showing that as runtime increases, it does not mean necessarily that profit will increase.

CONCLUSIONS

1. Action, Adventure, Sci-Fi genre appears to be the most profitable genre.
2. There was a steady rise of profits in the movie industry until 2017 when the profits began to dip.
3. The highest selling month was June and more sales were made between November and December.

RECOMMENDATIONS

1. Microsoft should focus on producing movies with Action, Adventure, Sci-Fi genres to maximize on their profits.
2. Microsoft should target to produce more movies within their first production year to maximize their profits.
3. Microsoft should produce their movies towards the end of the year in November and December and mid year in June to maximize on sales.