



Microsoft

FILMS TO INVEST IN

A GUIDE TO MICROSOFT CORPORATION VENTURING INTO THE FILM INDUSTRY

BUSINESS UNDERSTANDING

- ▶ Microsoft Corporation is a multinational technology company that develops, manufactures, licenses, supports, and sells computer software, consumer electronics, and personal computers. It is known for its flagship products like the Windows operating system, Microsoft Office suite, and Azure cloud computing platform. Product diversification into new sectors enables a corporation reduce dependence on a single industry, tap into new markets, cross-sell, adapt to evolving consumer needs, and sustain long-term success.
- ▶ Venturing into the movie making business can be a good way to diversify the company's portfolio. Movies are also a good way to advertise the company's products due to the masses that can be reached by a single movie. This can be a good way to cut costs on advertising and also offering profitability in the same films. Also they can ponder to various generations and countries.
- ▶ Venturing into movies can also increase share price of the Microsoft because the movies will also be valued as a separate asset class. This will encourage more buying of Microsoft shares. They can also be a good tax saving incentive because there can be some tax write offs for some showcased movies.
- ▶ Other Microsoft competitors like Amazon who offer a similar product in AWS have also ventured into movies through Amazon Prime. They have diversified their assets and have some market share in the streaming platform. Microsoft which is also a recognized brand can have a market share in the streaming wars.
- ▶ However venturing into the market requires significant capital and with such amounts of capital, getting to know what types of movies to make is key.

Business Problem

- ▶ Diversifying into the movies industry is a very huge step for Microsoft corporation. However since a big amount of capital will be going towards movies as a portfolio, there is need for researching how other movies that have been made have performed. How have audiences received the movie? is a key question into understanding the audiences. What films should we budget on ?are good questions to ask towards this portfolio.

Objectives

Main objective

To determine factors that influence profitability of movie genres.

Specific Objectives

1. What are the most produced genres of movies?
2. Do average rating, runtimes, months of release and production budget influence profitability of movies?
3. What genres should the company consider investing in?

Data Understanding

The data used is from the Box Office mojo, TMDB and IMDB. The analysis focused on variables which are defined below.

- ▶ Genres: Categories of movies based on their content.
- ▶ Production budget: The amount used to produce a movie.
- ▶ Worldwide gross: Gross box office revenues from the whole world.
- ▶ Profit: This is the difference between world wide gross and the production budget.

Process of dealing with the data

1. Import necessary libraries: Pandas, SQLite3, Matplotlib
2. Read the data from the files provided
3. Combined the tables into one data frame
4. Clean the data
 - After checking for the datatypes there were 3 data types that needed to be converted . The release date column needed to be changed from string to datetime datatype
 - Production budget, domestic gross and worldwide gross needed to be changed from string to integer
 - Dropped the columns with missing values
 - There were no duplicated values so I proceeded to the next step
 - Created new columns named profit which is the difference between production budget and worldwide gross.
 - Created a new column named months which I extracted from the release dates.
1. Exploratory data analysis and visualization

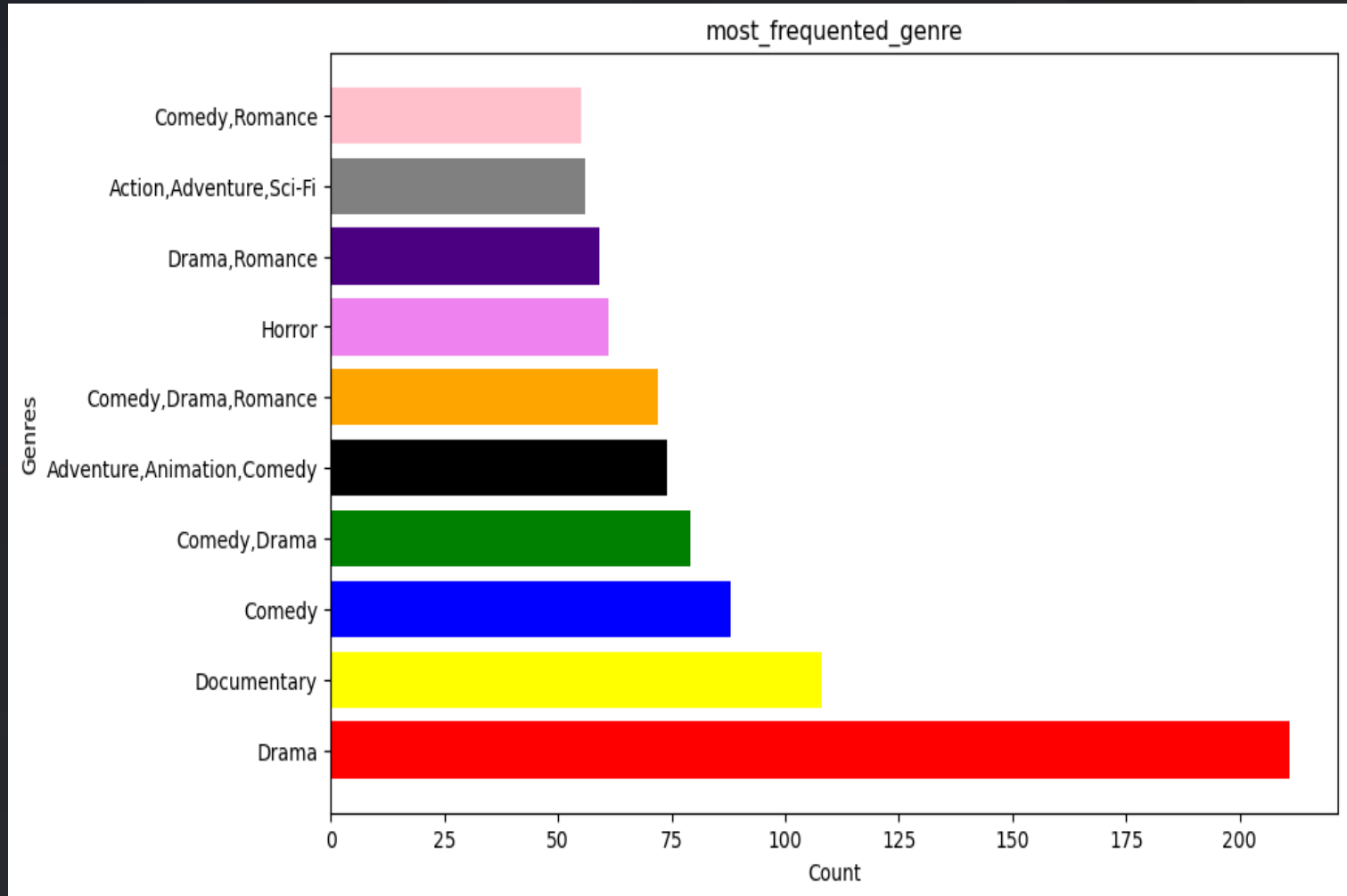
Exploratory Data Analysis And Visualizations

What will be explored are top 10 genres in this case;

1. The top genres that have been produced
2. Highly rated genres
3. Most profitable genres
4. Genres with the highest production budgets
5. Which month has the highest grossing both worldwide and domestically
6. Genres that have the longest runtimes

MOST FREQUENT GENRE

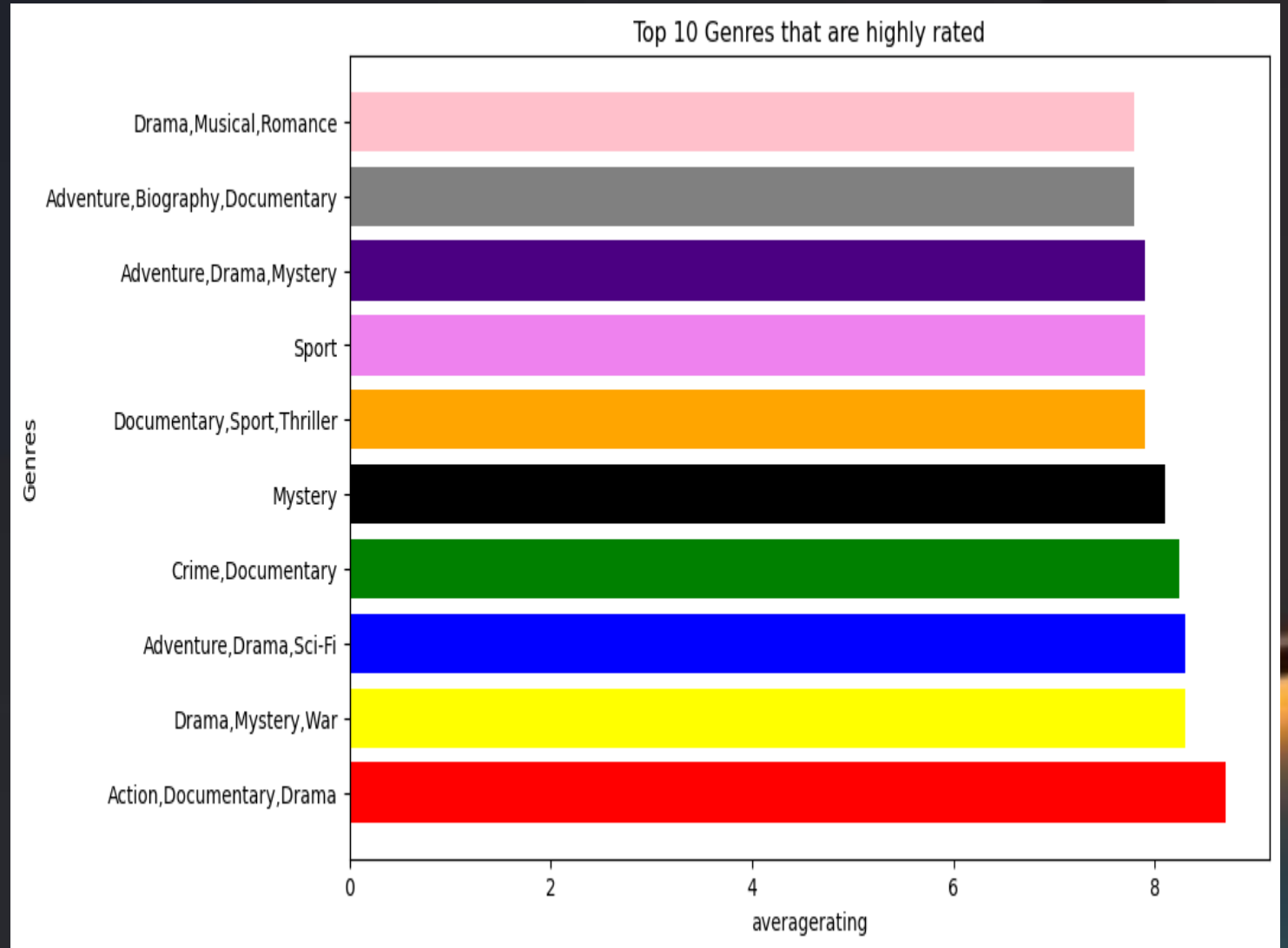
Dramas happened to be the genre that has been produced more often. Dramas are almost as twice as the next genre which is documentary.



HIGHLY RATED GENRES

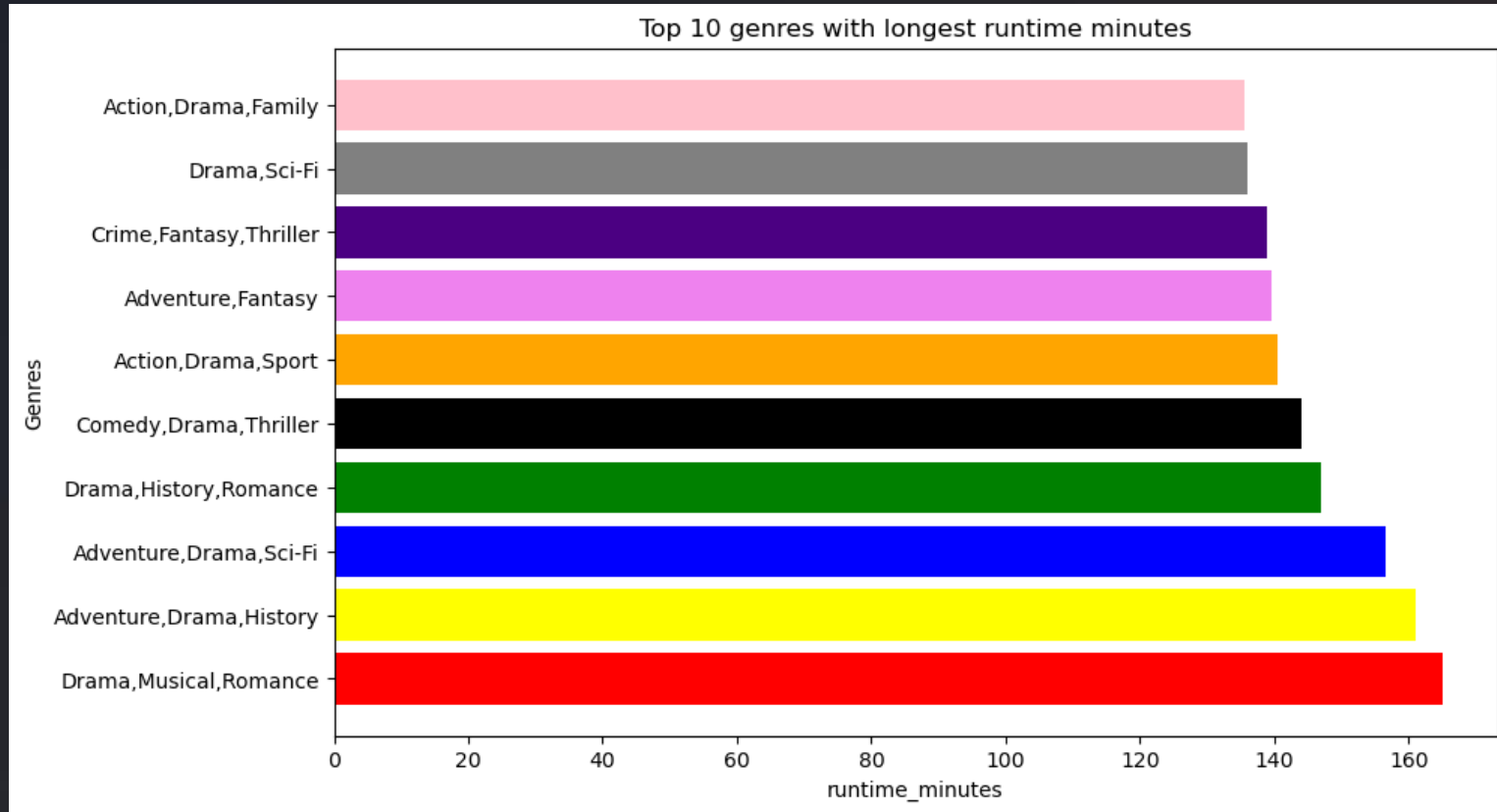
Action, Documentary, Drama happen to be critical darlings.

They are highly praised by critics. This can be a good place for Microsoft to invest especially as a streaming platform.



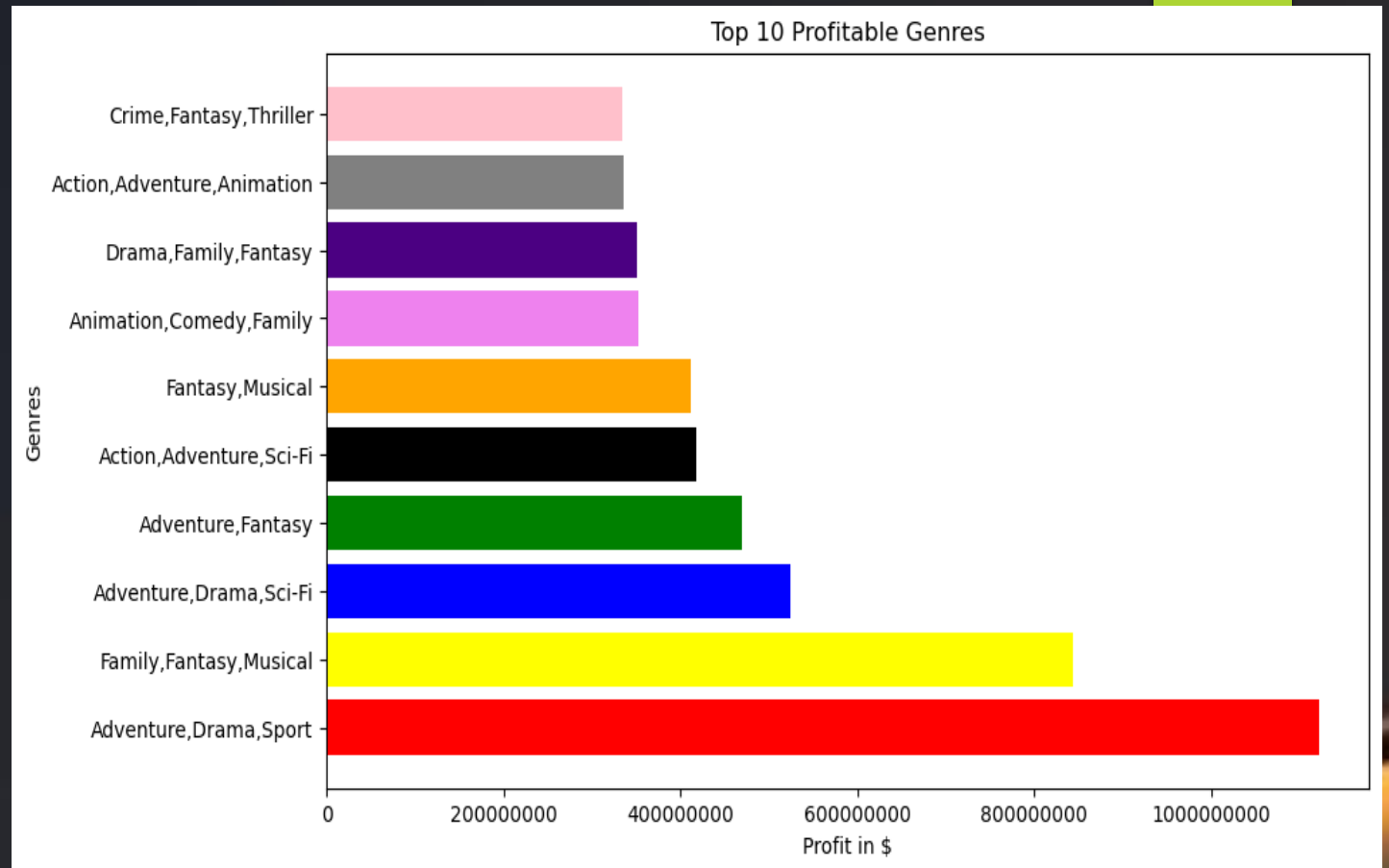
GENRES WITH THE LONGEST RUNTIMES

Drama, Musical, Romance tend to have the longest runtimes of more than 160 minutes. They are also good content for streaming platforms rather than box office.



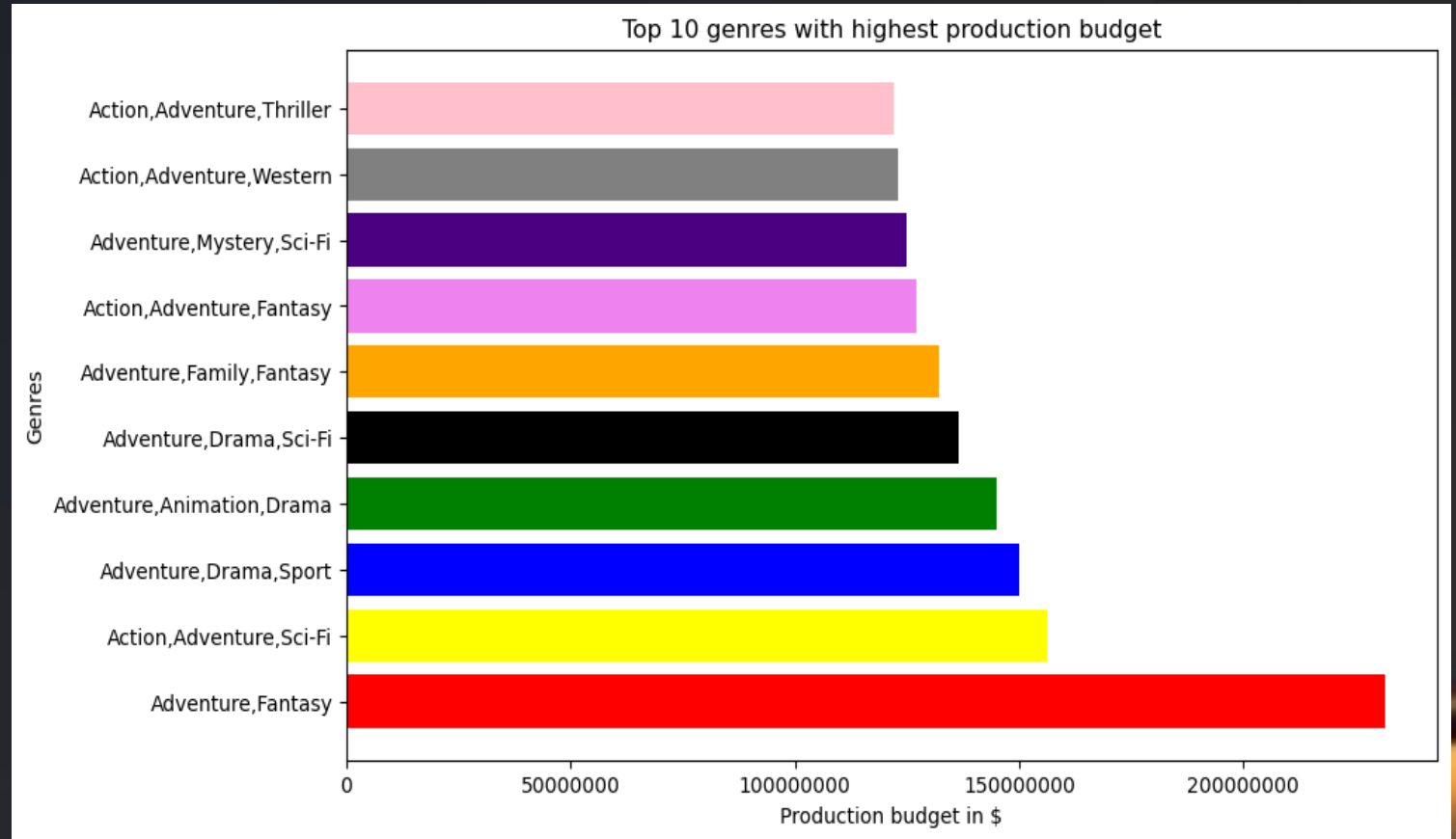
MOST PROFITABLE GENRES

Adventure, Drama and sport are the most profitable genres. They have managed to gross over 10B so far.



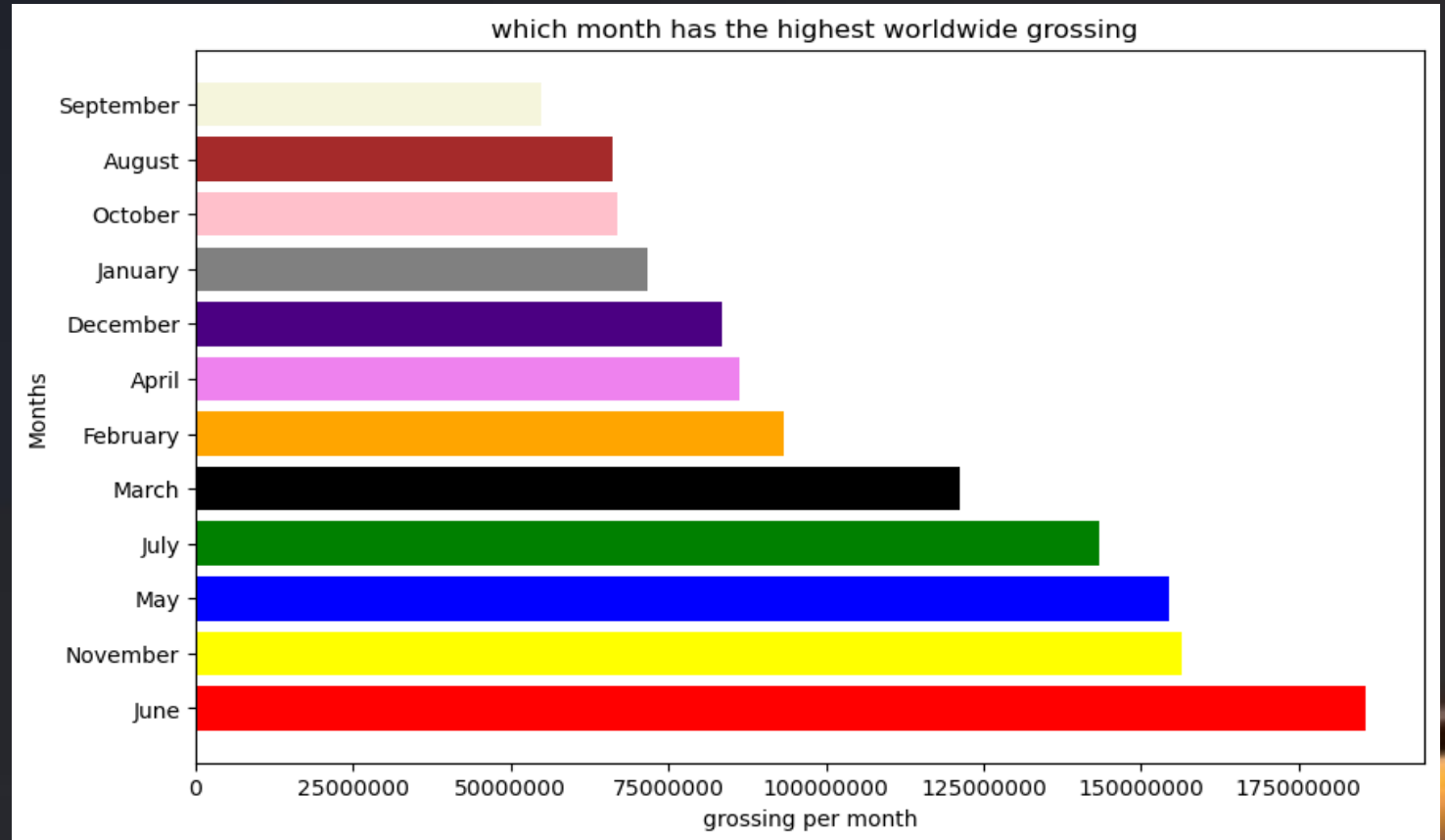
GENRES WITH HIGHEST PRODUCTION BUDGETS

Action, Fantasy have the highest production budgets going past 200M\$



MONTH WITH THE HIGHEST WORLDWIDE GROSSING

June is the best time to release a film. This happens to coincide with the beginning of summer hence the term summer blockbusters. September is the worst month to release a film.



Correlation

The correlation between runtime minutes and production budget 0.27. This means that there is no strong correlation between the two. However since its a positive correlation, it means that with as runtime minutes increase so will the production budget. -The correlation between production budget and worldwide gross is 0.78. This means there is a strong positive correlation between the two. Meaning the production budget has an effect on the worldwide gross to some extent. The correlation between average ratings and worldwide gross is 0.2 and the correlation between average ratings and domestic gross is 0.21. These show there is very little correlation although there's a positive correlation.

Conclusions

1. The main factor affecting profitability of a film is the production budget. With a correlation of 0.78 there's an almost perfect relationship between the two. It is also a positive correlation meaning as the production budget increases so will the profits.

2. Observations from the data

- Family, Fantasy and musicals have the highest returns. They have an extremely moderate whereby they rank outside the top 10 in terms of production budget but rank second in average profits. This can be an excellent source of high returns from a low budget.
- The most profitable genre is adventure, drama, sport. They have an average profit of 15B\$. They also have a moderately high budget of 150M\$.
- June is the best month to release a film both worldwide and domestically. June happens to coincide with the beginning of summer. The turnout for this period is high which can be attributed to the beginning of summer but more research will be required to see if a correlation exists between the seasons and grossing.

Conclusions 2

- ▶ Adventure, Drama, Sci-fi have a good blend of production cost, profit and critical acclaim. The genre ranks 3rd in all these bar the production budget which it ranks 5th. This can be a good blend for box office and streaming platforms. They can be invested in big to get good returns in the long run.
- ▶ -Dramas, musicals, romance have the highest runtimes of 165 minutes. However runtimes don't really affect profitability that much. From a correlation of 0.27 this suggests there is no high correlation between the two this.

Conclusions 3

- ▶ June is the best month to release a film both worldwide and domestically. June happens to coincide with the beginning of summer. The turnout for this period is high which can be attributed to the beginning of summer but more research will be required to see if a correlation exists between the seasons and grossing.
- ▶ September is the worst month to release a film both worldwide and domestically. More research will be needed to see why September is the worst month.
- ▶ Factors like ratings and runtimes don't significantly affect profits with a low correlations of 0.2.
- ▶ Fantasy, Adventure require high production budgets but are not the most profitable.

Conclusions 4

- ▶ September is the worst month to release a film both worldwide and domestically. More research will be needed to see why September is the worst month.
- ▶ Factors like ratings and runtimes don't significantly affect profits with a low correlations of 0.2.
- ▶ Fantasy, Adventure require high production budgets but are not the most profitable.

Recommendations

While choosing the movie to produce, genre, production budget and profitability should be the main factors.

Since Microsoft is a big brand already but are only venturing into movies, there should be enough capital to invest in Action, Adventure, Sci-fi to announce themselves big in the market. They should target for a release of this genre in June as the first film. These films also have good appeal to the audience hence a good safe bet.

Microsoft should also invest in Family, fantasy, musicals which have moderate production budgets but high profits in September. This is because for a moderate budget they have spectacular returns which can help during low seasons as September.

Avoid adventure ,fantasy at first. They can be a bit of a swing with regards to the profit.

THANK YOU. END OF PRESENTATION



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