



MICROSOFT STUDIOS

An analysis of the Box Office
Movies.

OVERVIEW

Microsoft is on a quest to venture into the Movies and Short Video spaces and required assistance understanding the space.

This project gives insight to the field and offers recommendations that would be beneficial for the head of the department to consider.

BUSINESS PROBLEM

1. Genres.

- What are the best performing genres at the box office?

2. Directors.

- Who are the best performing directors at the box office?

3. Studios.

- Which studios are the best performing studios at the box office?

4. Any other factors

DATA UNDERSTANDING

The data was found within a zipped folder that contained one sqlite3 database file and 3 relevant csv files.

With Pandas and Sqlite3 libraries, I read, cleaned, analyzed and merged the two different file types into one Pandas Data Frame.

Cleaning methods such as dropping columns, dropping records with missing data and changing data types were used to keep the data clean and consistent.

The Data Frame now contained necessary features such as dates, vote count, directors, genres, studios, movie runtimes and movie titles.

Additional features were engineered from the available columns.

DATA ANALYSIS

I used descriptive analysis to work on this project that looked at historical data as the main source of data.

Using methods such as `'value_counts()'` and `'groupby()'` enabled the summarization and aggregation based on the feature(s) as required.

Visualisation used in the project consisted of bar charts, multiple bar charts, scatter plots and histograms to visually display the features required to answer the business questions set up earlier.

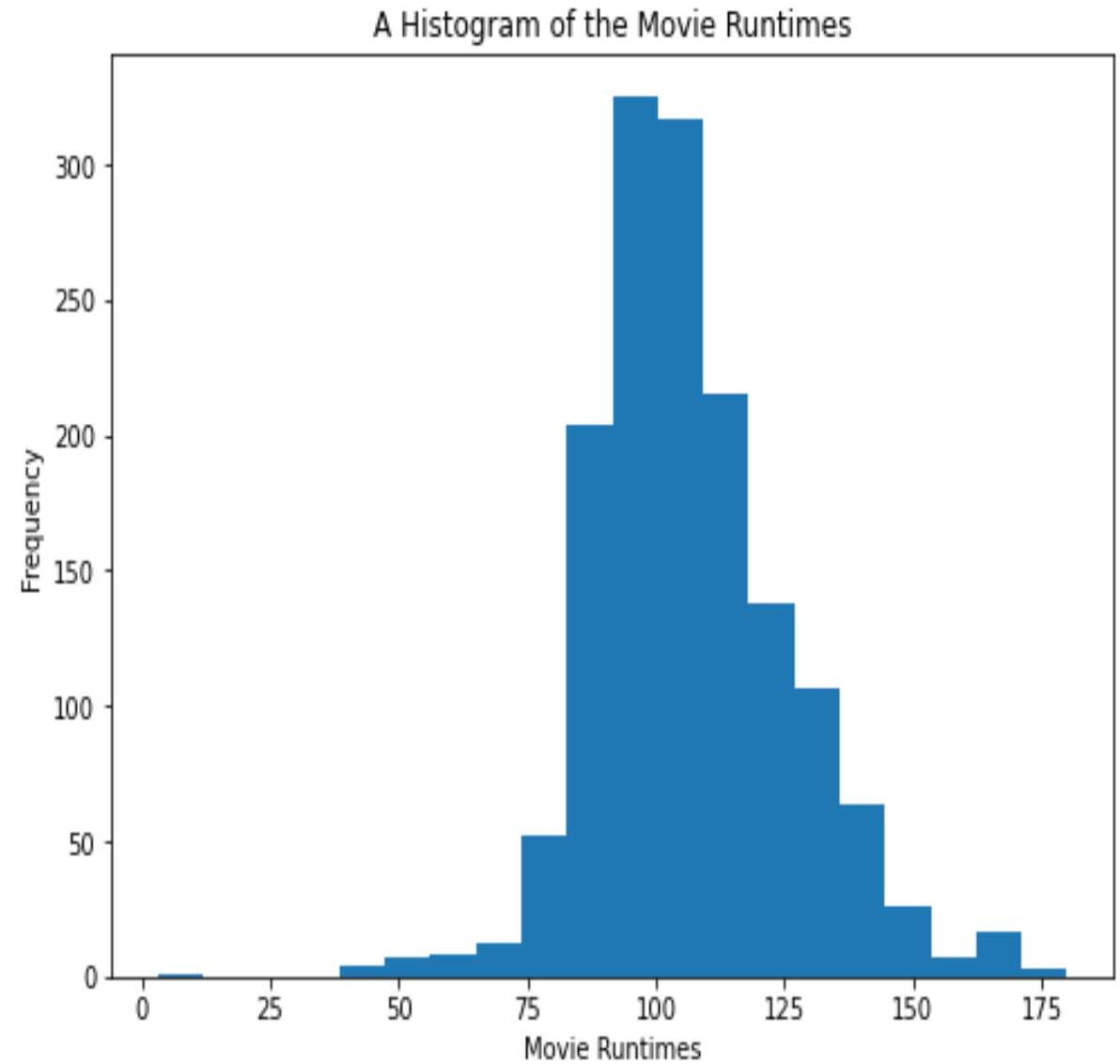
Functions were used to simplify the presentation of the notebook and reduce repetitiveness.

ANALYSIS



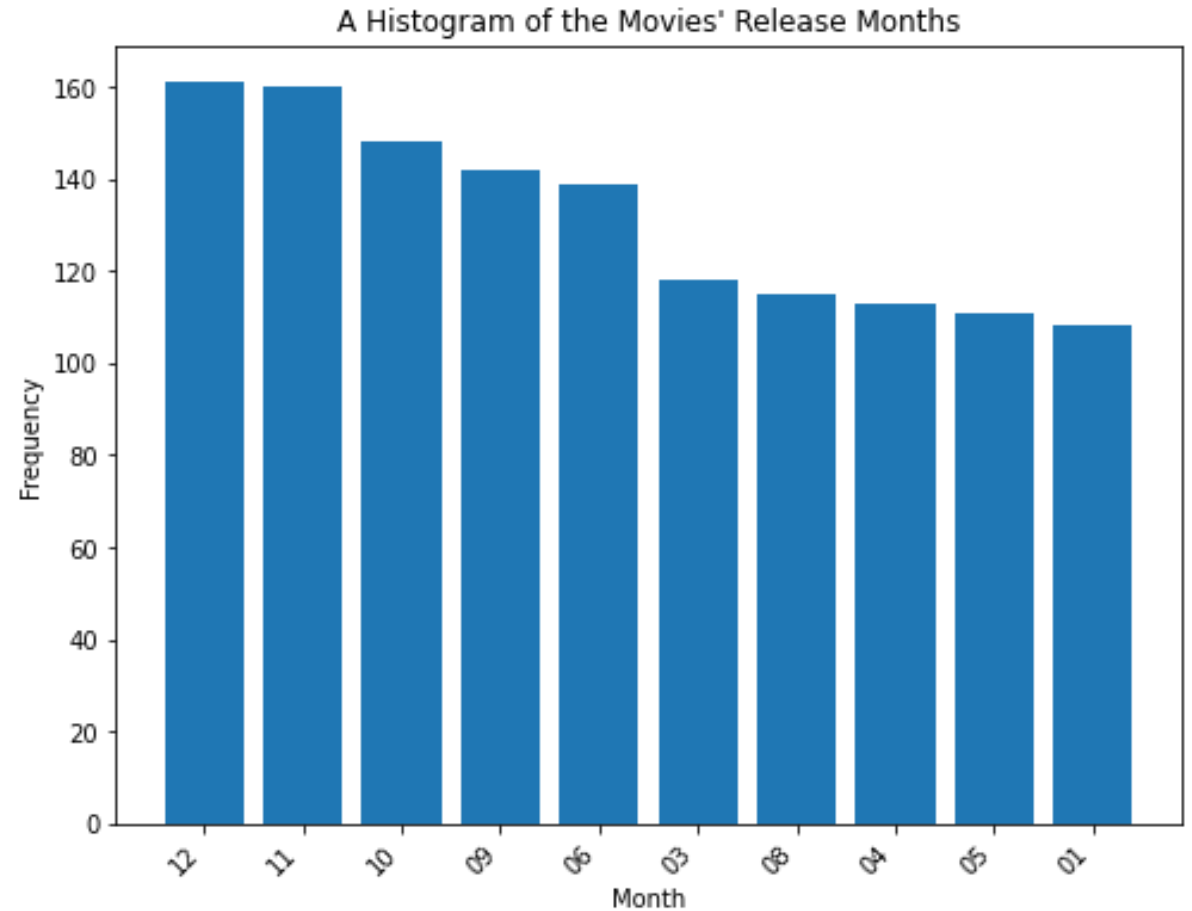
MOVIE RUNTIME

The frequency distribution shows that most movies are within the 90 – 110.



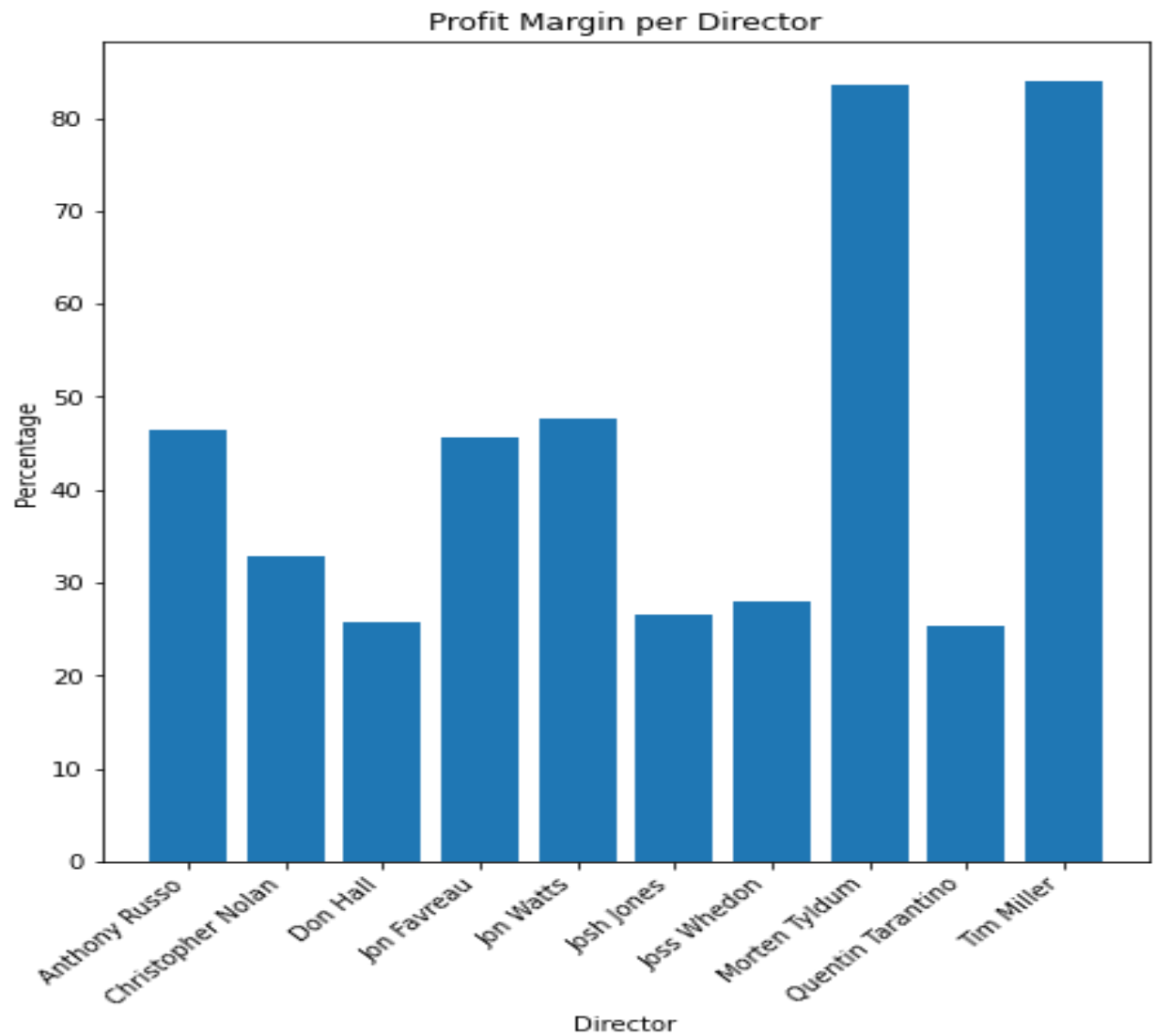
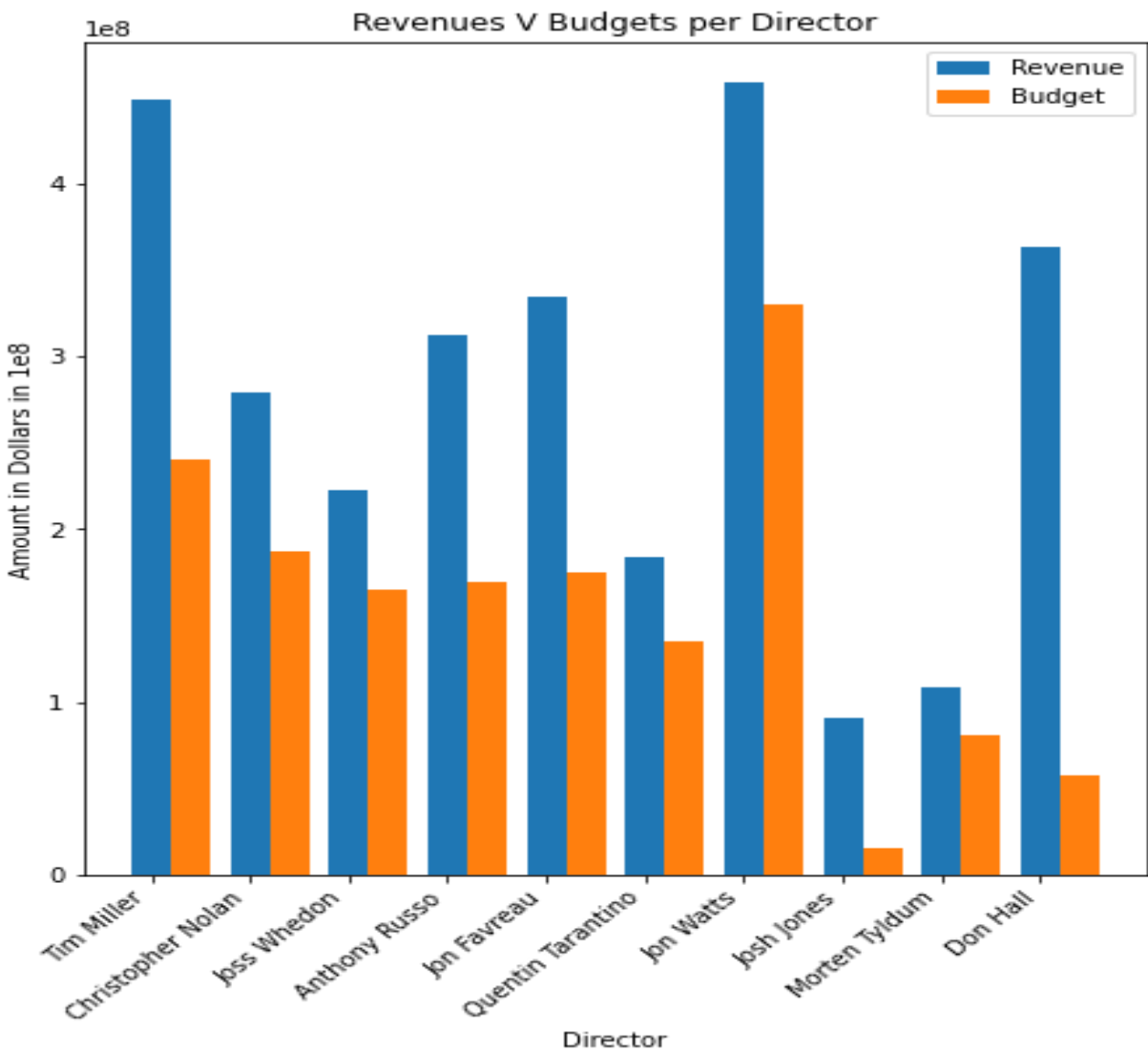
MOVIE RELEASE PERIODS

Most movies are released in this period. This could be due to many factors present, however, it would work best for Microsoft to tap into the influx of viewers present in the period between October and December for maximum viewership.



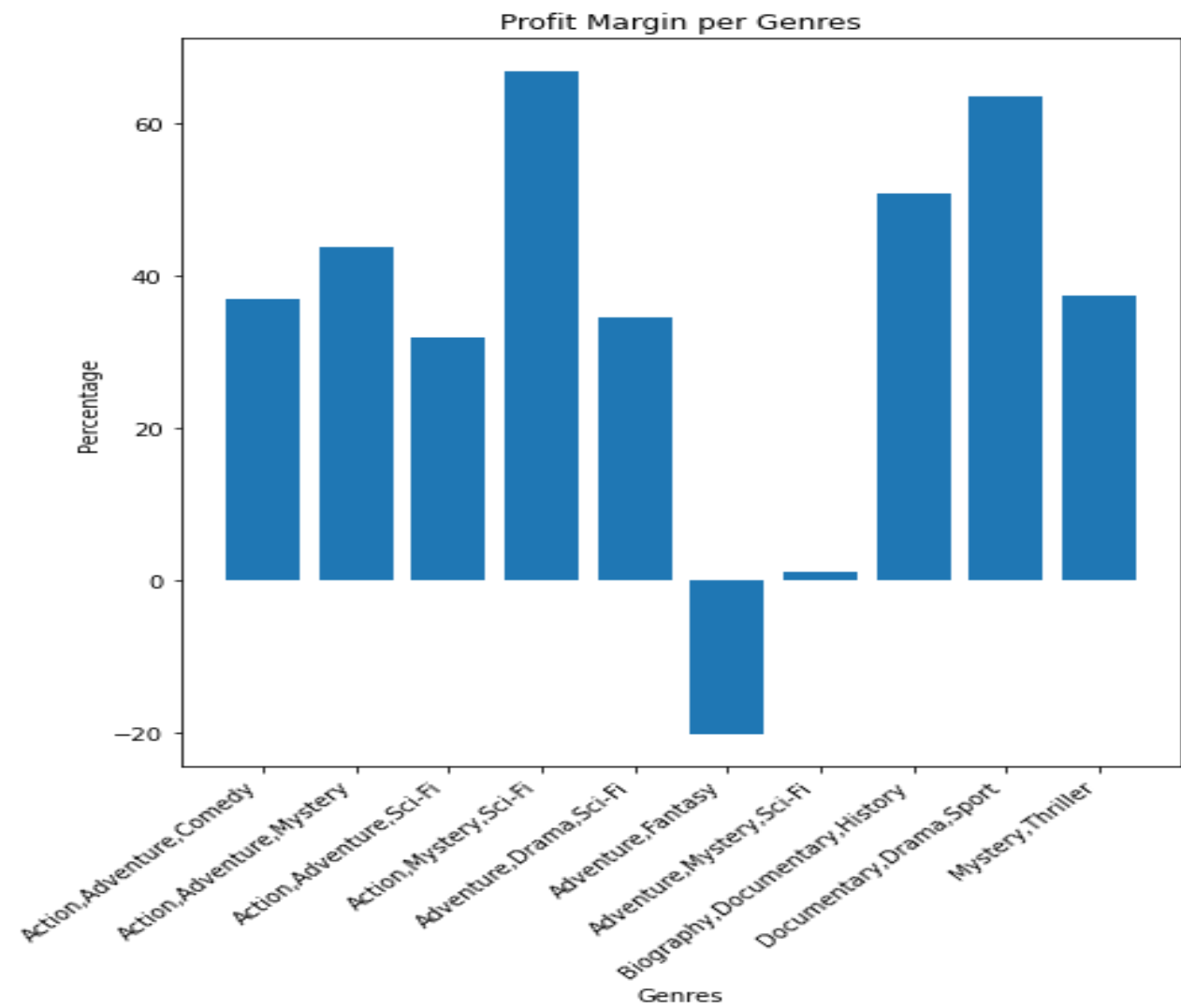
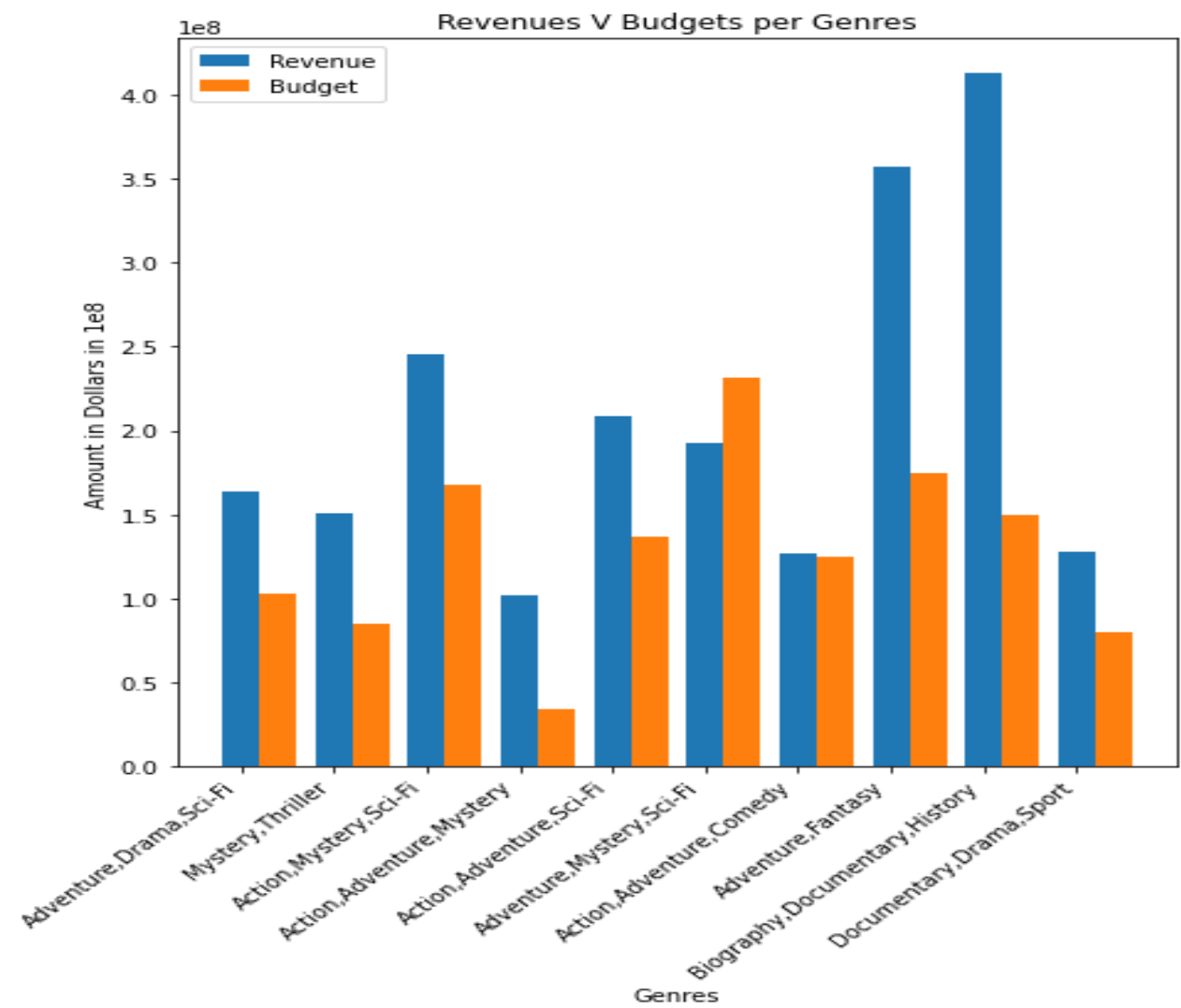
DIRECTORS

The highest voted directors Tim Miller and Morten Tyldum had the highest profit margins associated with their movies.



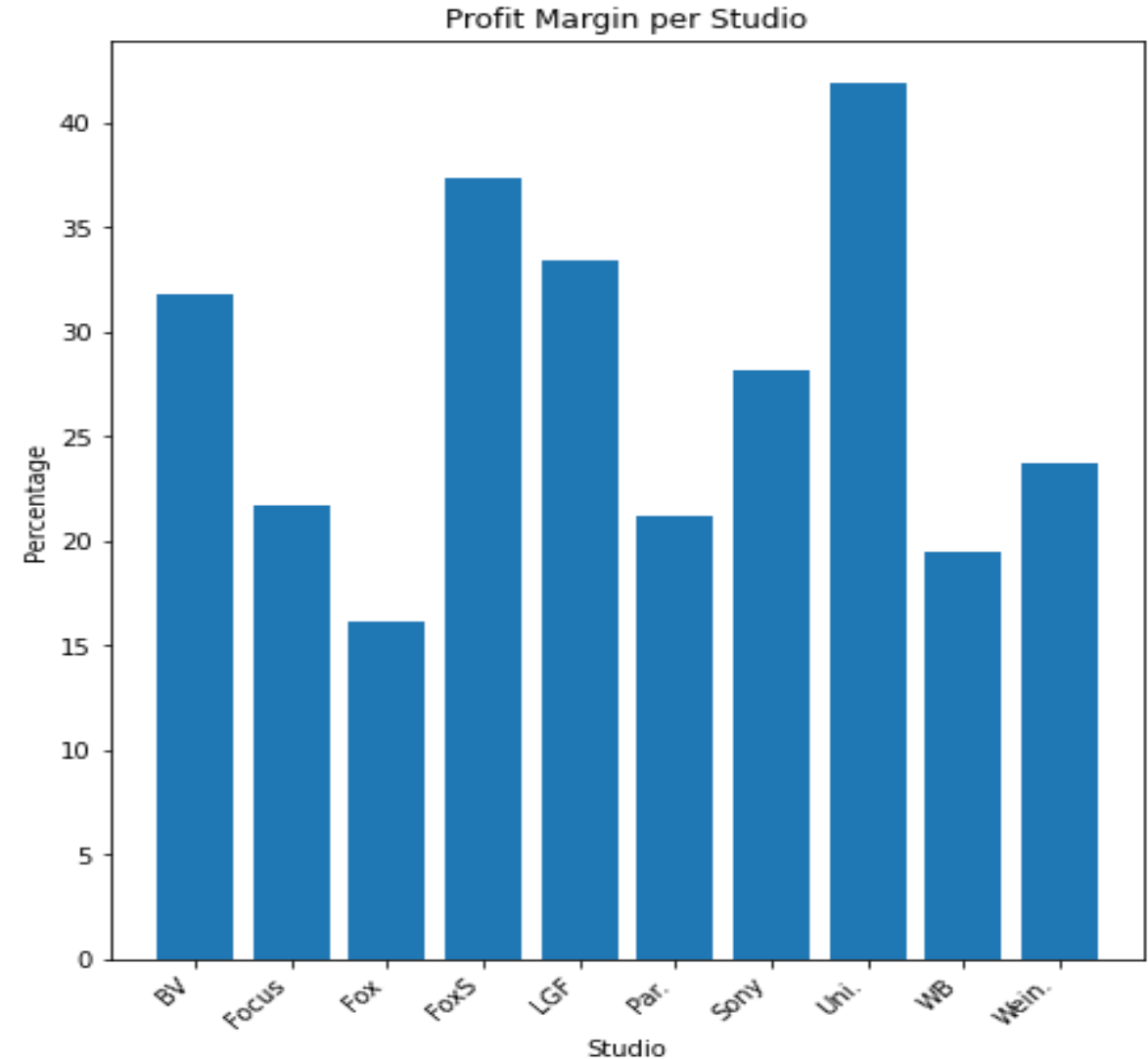
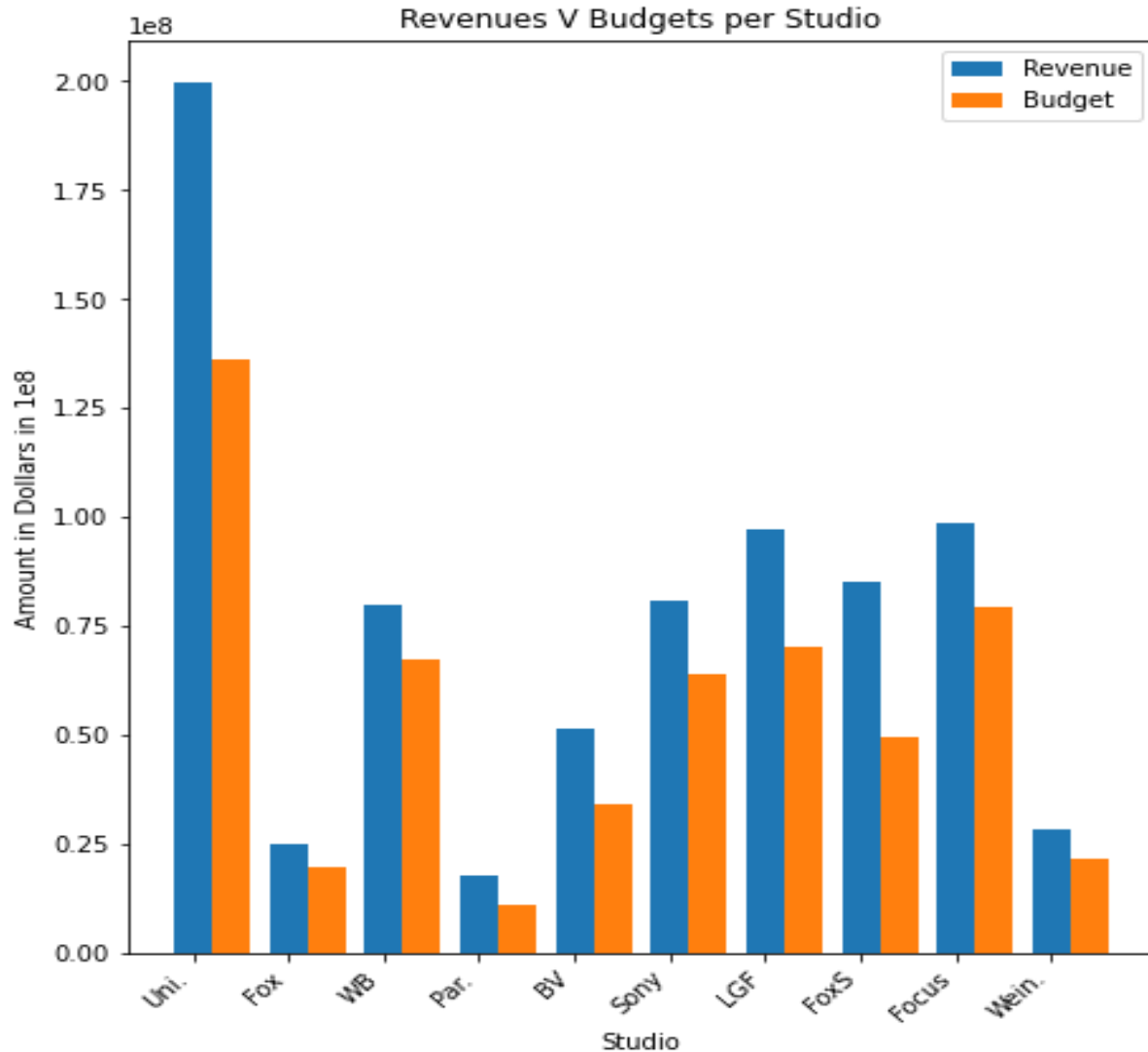
GENRES

Action | Mystery | Sci-Fi and Documentary | Drama | Sport genres were among the highest voted movies and produced a high profit margin approximately 60% compared to all other highly voted genres.



STUDIOS

Universal Studio, Fox Studio, LGF and BV showed remarkable profit margins over all the other studios available in the dataset – producing high return movies with over 30% profit margins.



RECOMMENDATIONS

Movie Runtimes - The best runtimes are between 90 and 110 minutes.

Release Periods - The best time to release movies is between October and December.

Genres

Action | Mystery | Sci-Fi and Documentary | Drama | Sport genres had a high return in terms of profit margin while also being among the most voted by the movie lovers population.

Directors

The directors whose movies have the highest vote count means are Tim Miller and Christopher Nolan.

However the most profitable director in absolute terms is Tim Miller while the director with the highest return per dollar invested are Tim Miller and Morten Tyldum.

Studios

Analysing the studios shows us that the biggest competition will come from Universal Studios WB(NL) and Fox(S) who seem to have taken the market by storm reducing the share for all other studios.

NEXT STEPS

With the recommendations given in the previous slide, with the sufficient budget allowing, I propose that the Studio invests in:

1. Directors with high returns per project; where possible investing in the top 3 directors with high returns and who were also highly voted for their work.
2. Genres that garner a lot of following from the target audiences; a high correlation between revenue and vote count that would also increase the success of the studio.
3. Keep an eye on the most successful brands and emulate and/ or strengthen their strategies to ensure that we break into the movie space and curve out a piece of the movie magic.

THANK YOU