# Microsoft Studios Movie Analysis

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# Summary

Quantitative analysis of the the top movies in the past century in relation to return on investment with major studio budget, over fifteen million USD after accounting for inflation from their initial release date, the expectations for Microsoft's ROI and the total budgetary figure it would take to launch a successful initial blockbuster

- The analysis revealed three business recommendations/findings Microsoft could implement and expect with the debut of MS Studios and are listed below:

- The movie genre should be one of the following:
    - Drama
    - Adventure
    - Comedy
    - Action

- The movie will cost around the following:
    - Drama - 26M USD
    - Adventure - 83M USD
    - Comedy - 32M USD
    - Action - 39M USD

- The expected return on investment:
    - Drama - 14.7x
    - Adventure - 14.2x
    - Comedy - 15.6x
    - Action - 13.5x

# Outline



BUSINESS PROBLEM

DATA & METHODS

RESULTS

CONCLUSION

FUTURE WORK

# Business Problem

**What Genres to Focus On**

**How much capital is required for a debut project**

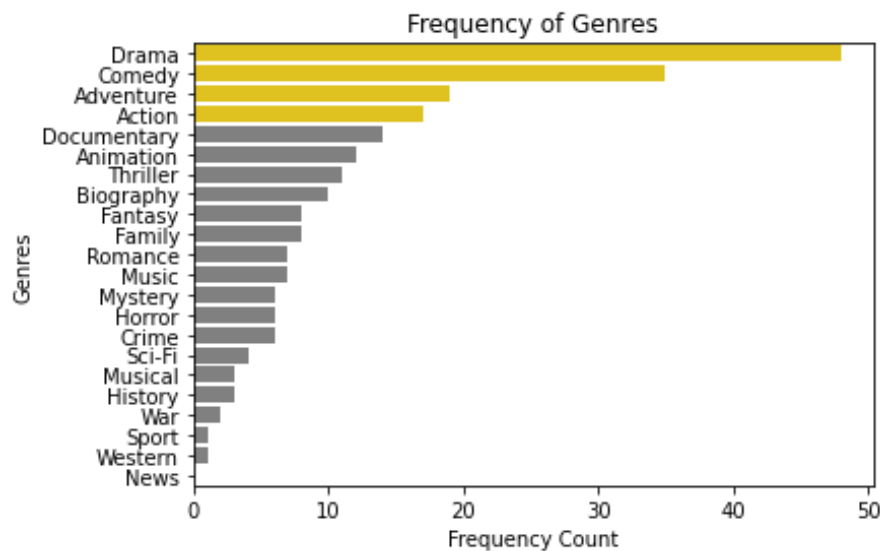**How much can Microsoft expect on their return on investment**

# Business Problem

▶ Analyzing the monetary data from movies of the last century and adjusting all monetary figures to account for inflation is how we give Microsoft a realistic expecations of the amount of money needed to make a blockbuster hit and how much money they could expect in return. We will be looking at what genre movies is the most profitable, how much Microsoft should expect the movie to cost and how much they can expect to make back.

▶ We also selected movies with budgets over fifteen million dollars as movies with lower budgets do reflect higher ROIs, however these movies have less box office sales and thus are misleading and should be trated as outliers.

# Data & Methods

▶The data used in this analysis was provided by Flatiron School and came from IMdB (Internet Movie Data Base) & tn (The Numbers) websites. The following libraries were leverage to perform the analysis glob, plotly, pandas, numpy, matplotlib, seaborn & cpi.

▶We first analyzed the movie_budgets.csv file to acquire an understanding of the financials of all the movies for the last 100 years. After that, all monetary values were adjusted for inflation to get a better understanding of the real financial commiment Microsoft will have to take if they are to produce a blockbuster debut film.

▶The data was then sorted by return on investment and modified to relefect only movies with budgets over 15 million USD. This was done to show the top 100 most profitable movies with the exception of low-budget films as cult classics are usually outliers in the indie film industry and their return on investment is disproportionate to other films.

▶Data from title_basics.csv was then used to asign a genre to each of the top movies. Once the dataframes refelcted the genre data we examined the frequency of the each genre and complied a list of the top four most popular genres from the most profitable studio-budget films of the last one hundred years.

▶Lastly the we examined each genre individually to acquire a mean for the total movie budgets and the expected return on investment.
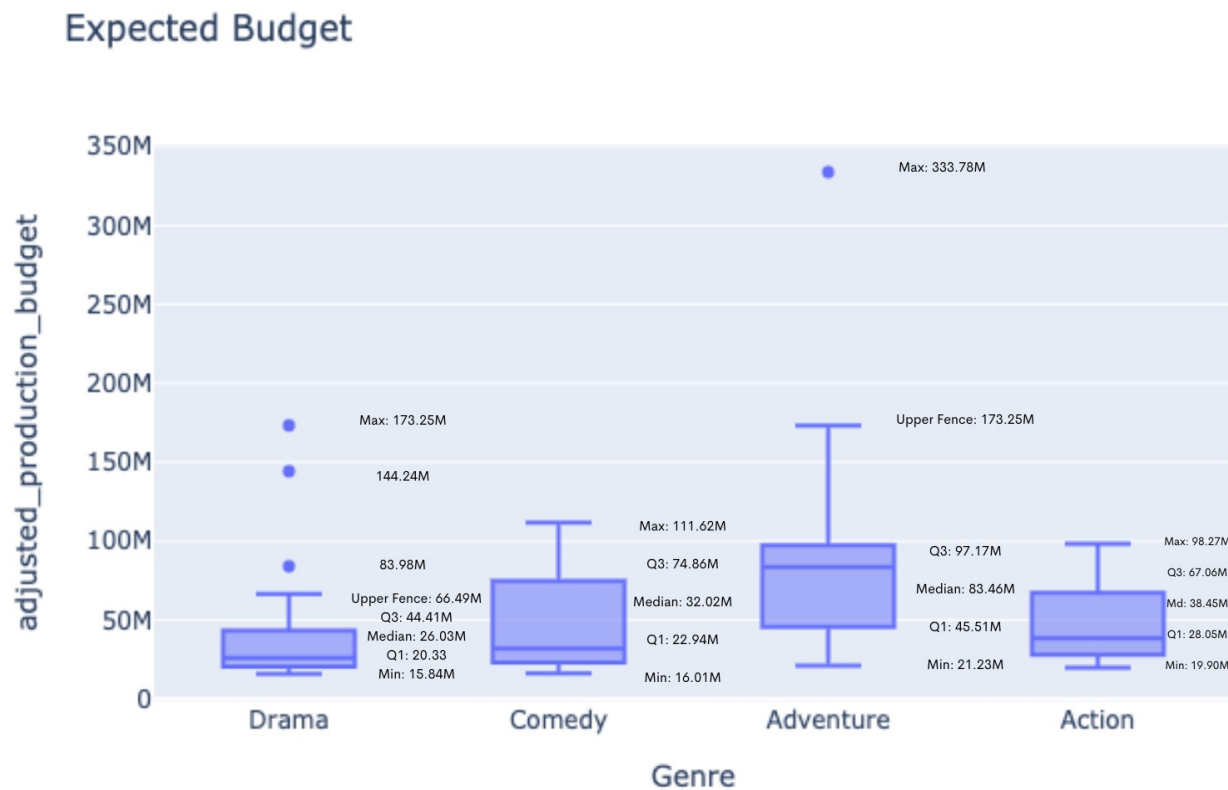
# Results



Frequency of Genres

▶The plot shows us the 4 most popular movie genre for the most profitable studio-budget movies of the past century

▶**We recommend Microsoft target one of these four genres in their upcoming film debut**
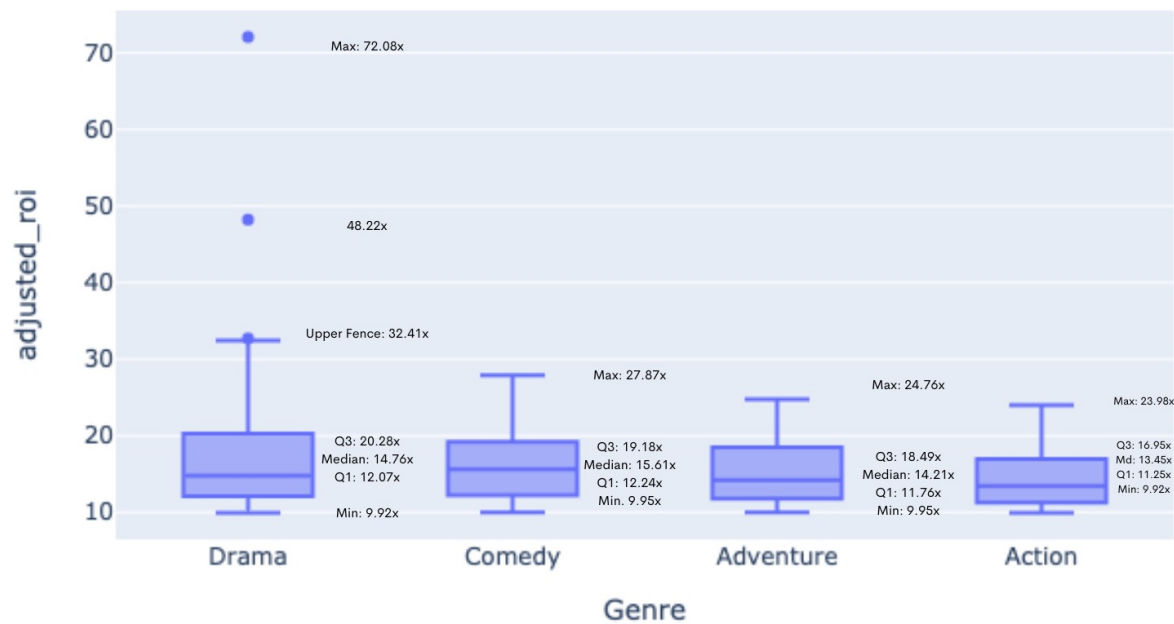
# Results

## Expected Budget



▶ The expected budgetary needs Microsoft will have to finance their studio film debut

▶ **We recommend Microsoft go with the most popular genre which also happens to be the most economical: Drama**

# Results

## Expected ROI



► Analysis the ROI metric for each of the genres as the plot shows below

► **Per analysis we can recommend Microsoft's financial officer can expect an ROI of: 14.76x**

# Conclusion

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- The movie will cost around the following:
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# Future Work

Further analysis can be performed as to when throughout the year each genre is the most profitable and hone in on a release date

Further analysis can be performed to ascertain which directors are the best for each genre