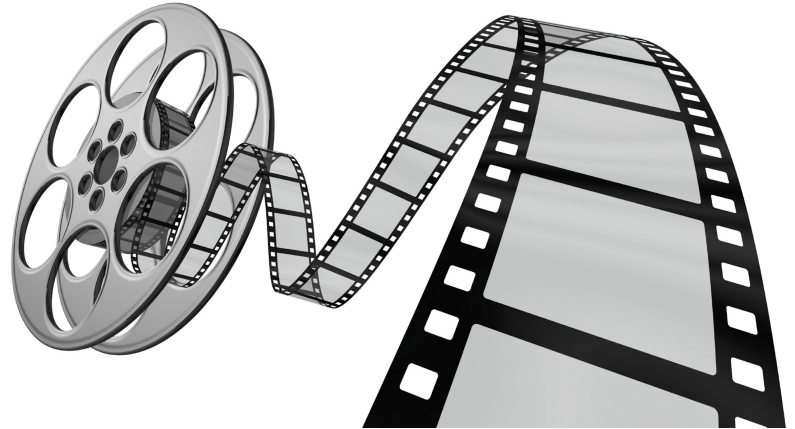# Microsoft Movie Analysis

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Summary

This project analyzes characteristics and factors of movies that are correlated to success at the box office to generate insights and recommendations for the stakeholder. Descriptive analysis of budget, gross earnings, genre and run time will be explored to see how these are related to movie success and return on investment (Measured by Net Gross Earnings) and actionable recommendations will be given on these areas.

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

Microsoft is planning to create a new movie studio and need assistance with determines what type of films to produce.

- What type of films do the best at the Box Office?
- Which characteristics of films correlate to success?
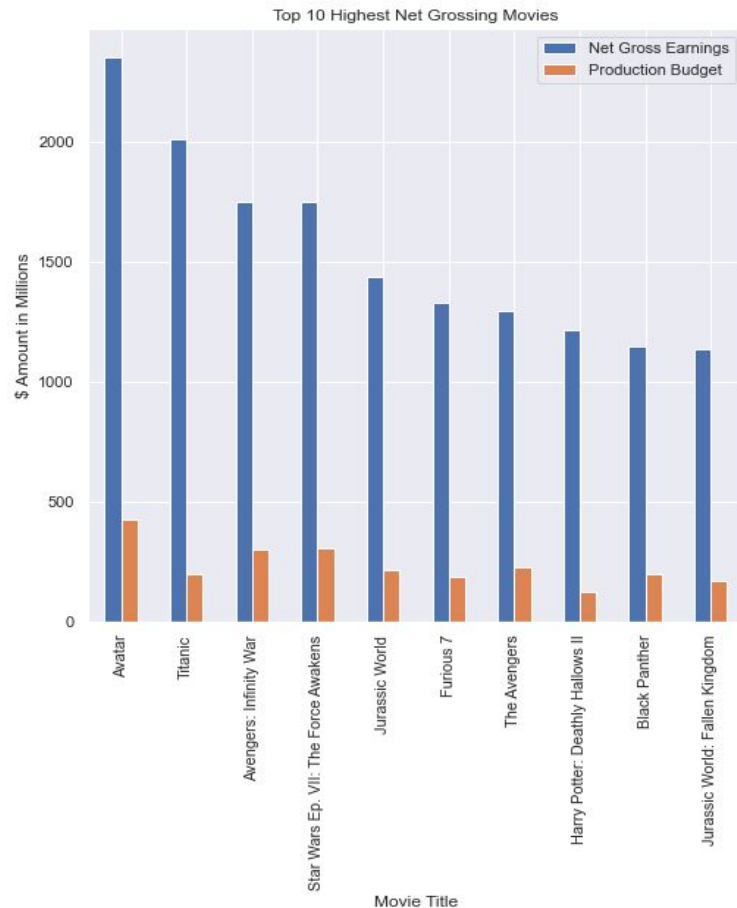- What type of budget is needed?

Data & Method

Descriptive analysis was performed on the following variables from the following data sources:

- The Numbers

    ➡ Budget and Net Gross

- IMDB

    ➡ Run Time and Genre

- Box Office Mojo
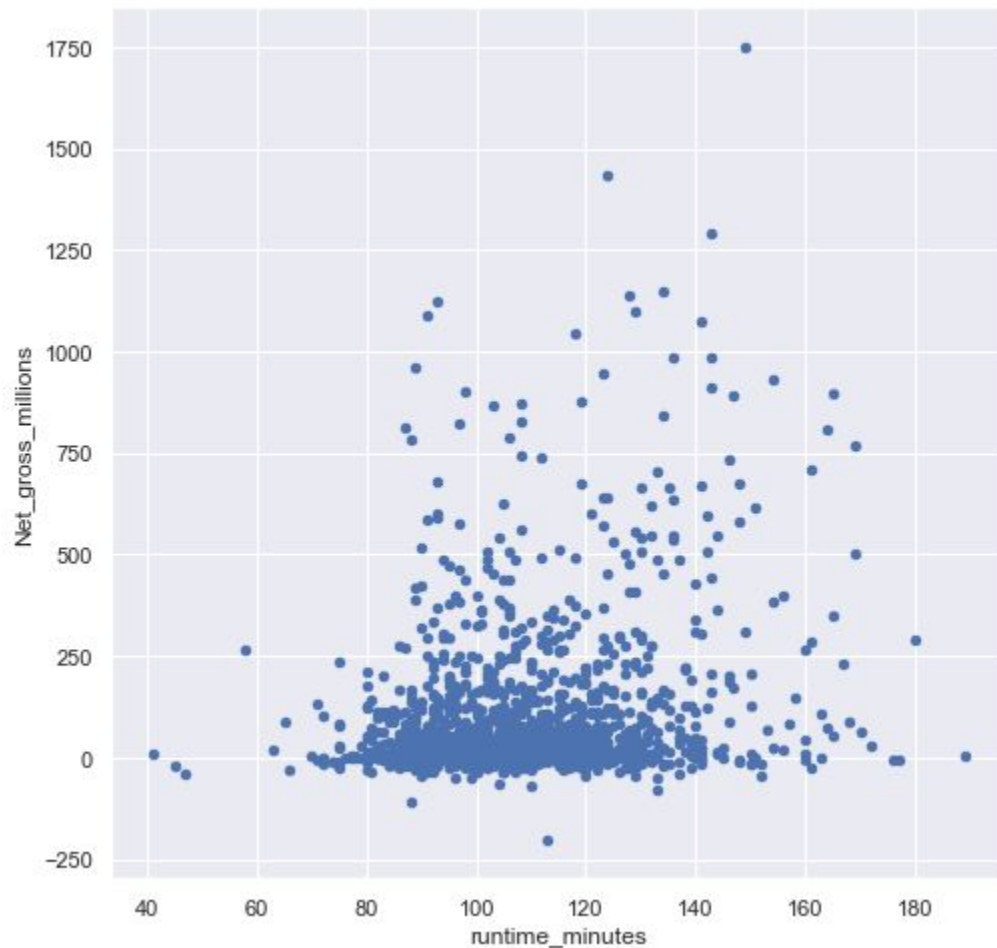
    ➡ Was explored but not utilized in final analysis

Results: Budget $

- Budget has a positive correlation with total net gross
- Average budget = **$ 34 million**
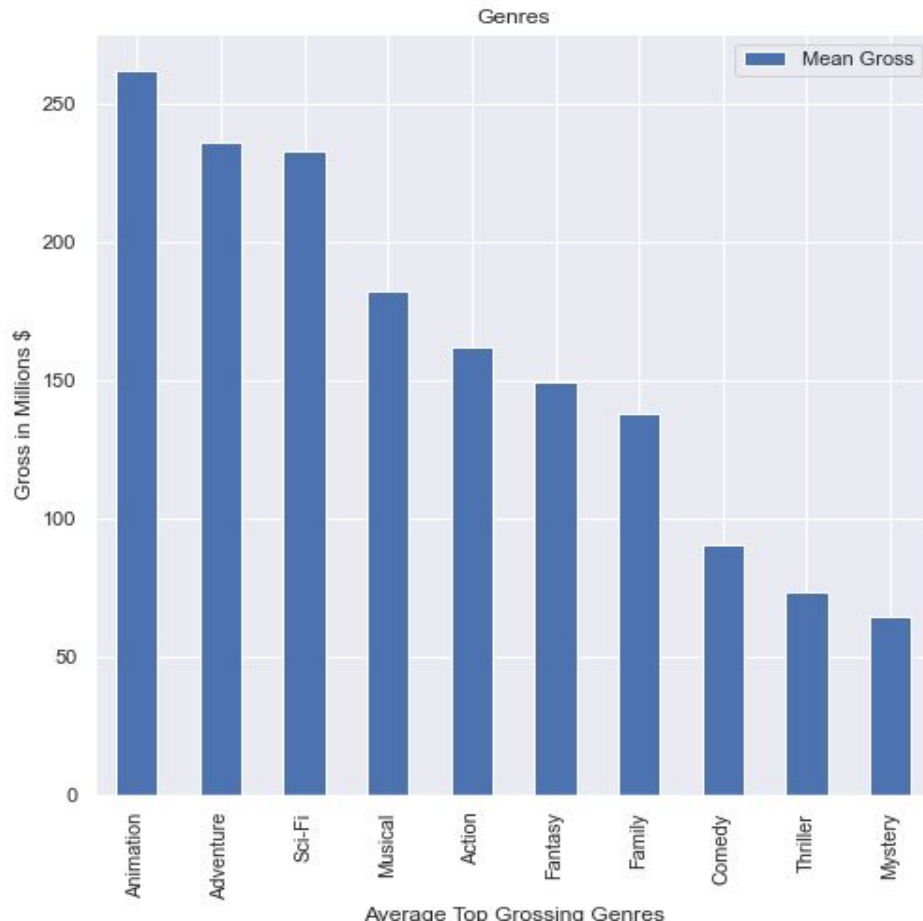- Average budget of top 100 highest net grossing films = **$159-160 million**

Top 10 Highest Net Grossing Movies

Legend: Net Gross Earnings, Production Budget

Y-axis: $ Amount in Millions (0, 500, 1000, 1500, 2000)

X-axis (Movie Title): Avatar, Titanic, Avengers: Infinity War, Star Wars Ep. VII: The Force Awakens, Jurassic World, Furious 7, The Avengers, Harry Potter: Deathly Hallows II, Black Panther, Jurassic World: Fallen Kingdom

Results: Run Time

● Run time showed a positive but weak correlation

● Average run time = **107 minutes**

● Average run time of the top 100 highest net gross films = **120-130 minutes**
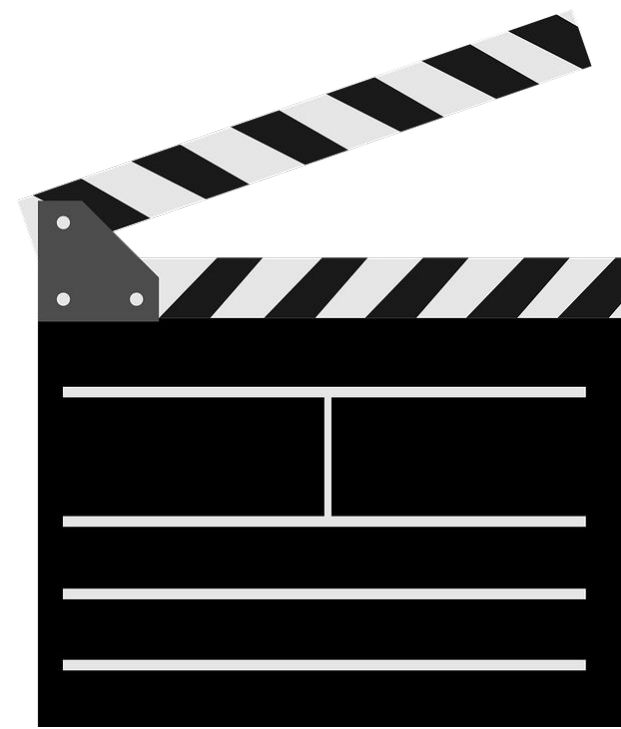
Results: Genre

- Top average net grossing genres overall were:
    - **Animation**
    - **Adventure**
    - **Sci-Fi**
- Further calculation revealed that genres with the highest single film net gross were:
    - **Sci-Fi**
    - **Action**
    - **Adventure**

Genres

Conclusions

Film Recommendations:

- Production Budget:
    - **Plan for a production budget of ~160 million dollars**
- Run Time:
    - **Can vary but recommendation 120-130 minutes**
- Genre:
    - **Recommend producing films in the Animation, Sci-Fi and Adventure genres**

Thank You!

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