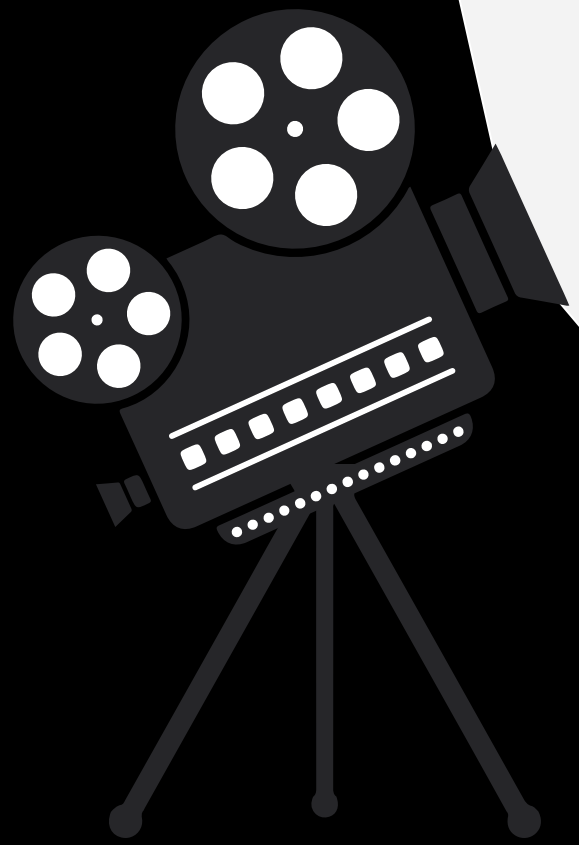
TITLE

# Analysing Movie Trends:

What Films Perform Best at the Box Office?

| DATE | GROUP | PHASE |
| --- | --- | --- |
| 04/04/2025 | #6 | #2 |

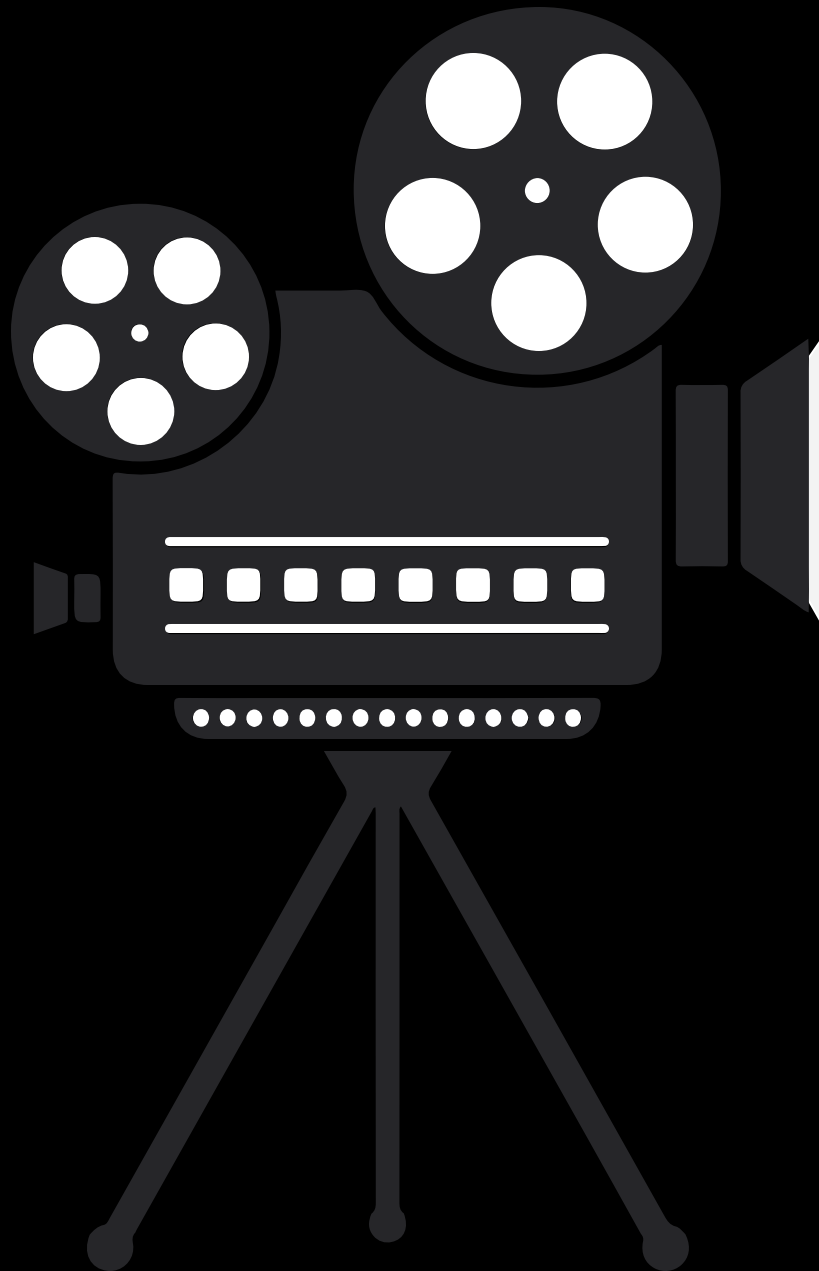


# 🎭 What is the Problem?

🎬 Movie studios invest millions, but revenue is unpredictable!

📉 **Challenges:**

- Uncertain Box Office Performance
- Lack of Data-Driven Decision Making
- Misallocation of Budgets



# What questions are we answering?

📊 Which genre generates the **highest revenue**?
🎯 How do production budgets impact **profitability**?
📈 What **trends** exist in audience preferences over time?
🏆 How does **critical reception** correlate with box office performance?

# Data Analysis

- We merged two datasets from **IMDB** and **The Numbers**
- Data Structure:
  - **Movie Budgets & Revenue** – Production budgets, domestic & worldwide gross earnings.
  - **Movie Metadata** – Genre, language, popularity, runtime and ratings
- Analysis was done using the **Python language**

# As per the Analysis

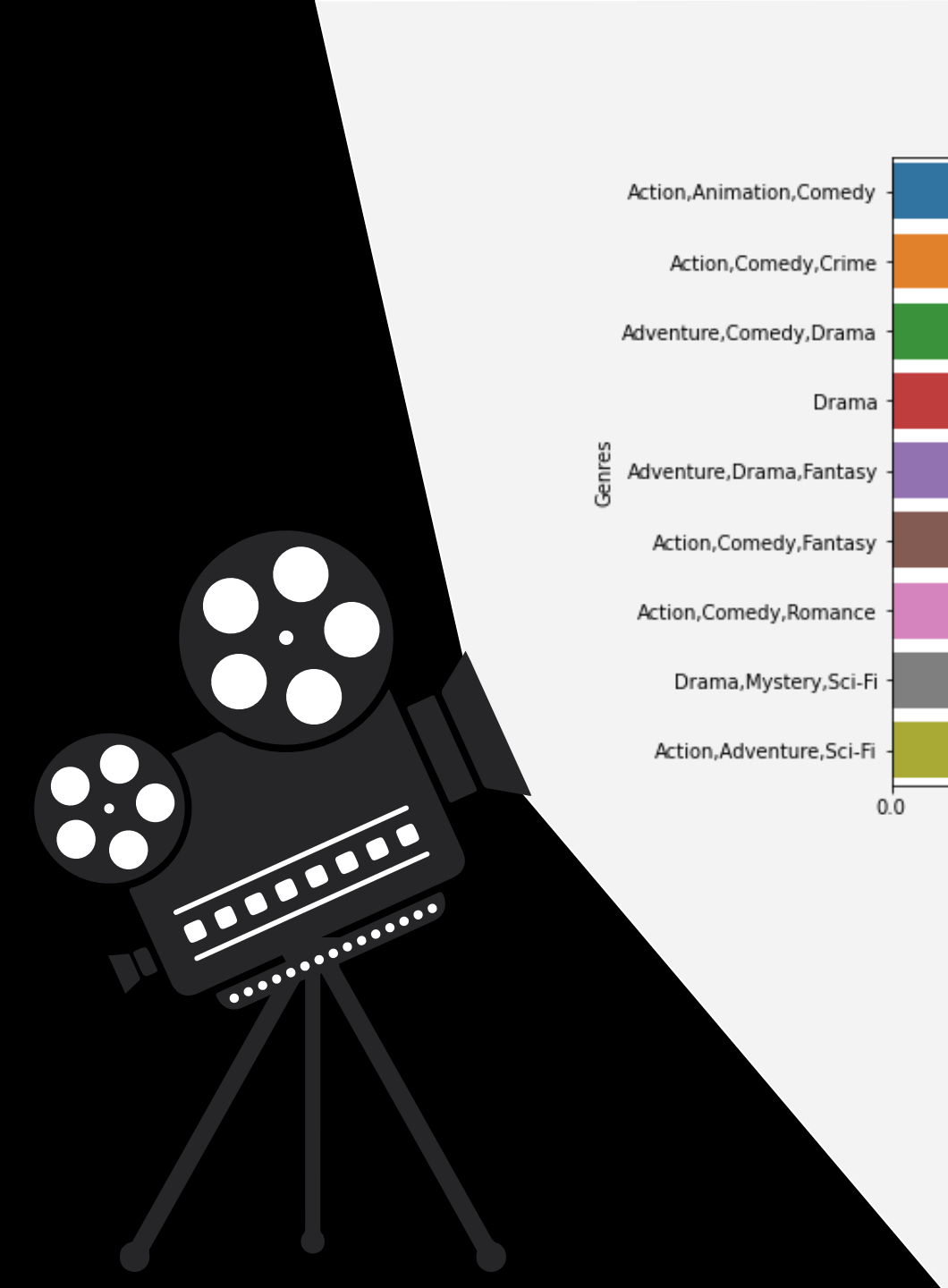
**90-150 minutes**

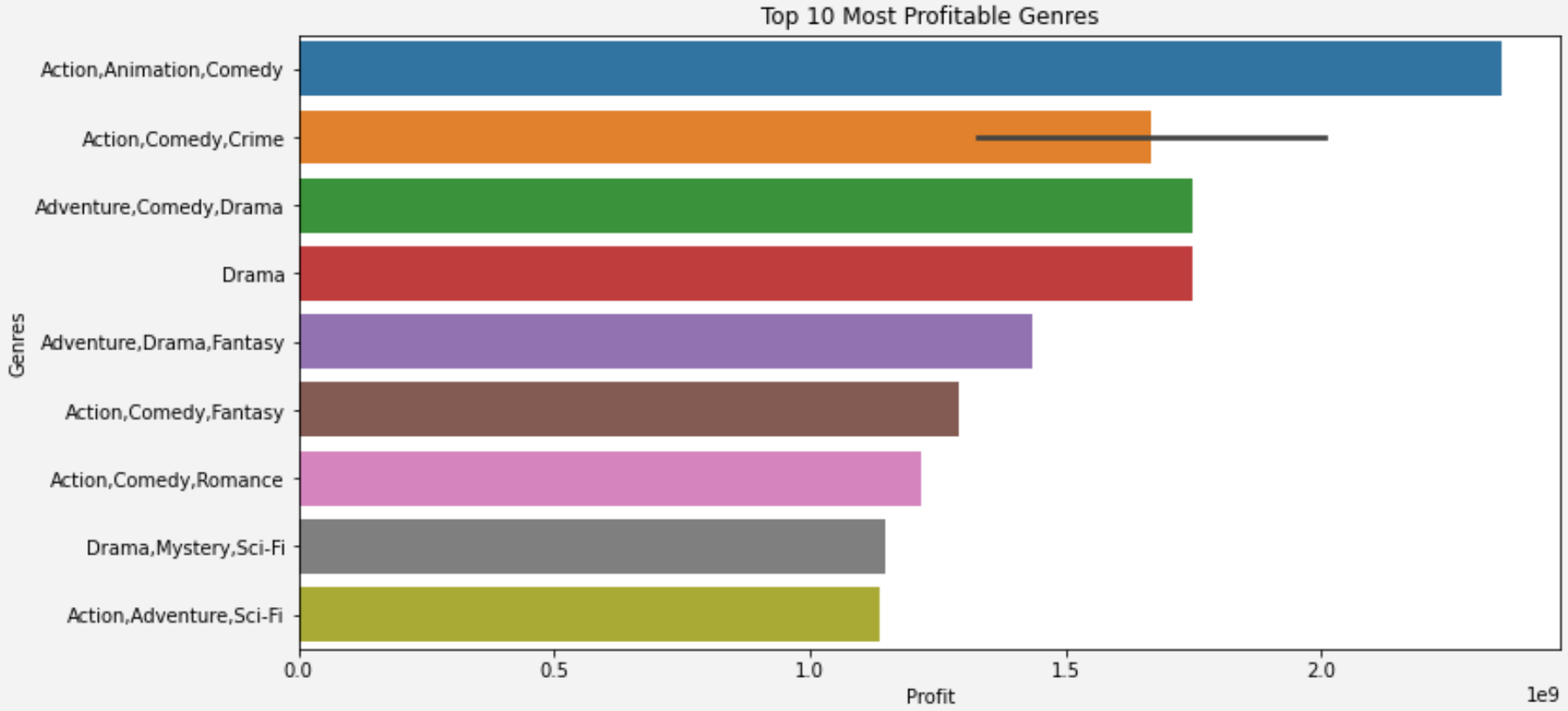
- Runtime sweetspot

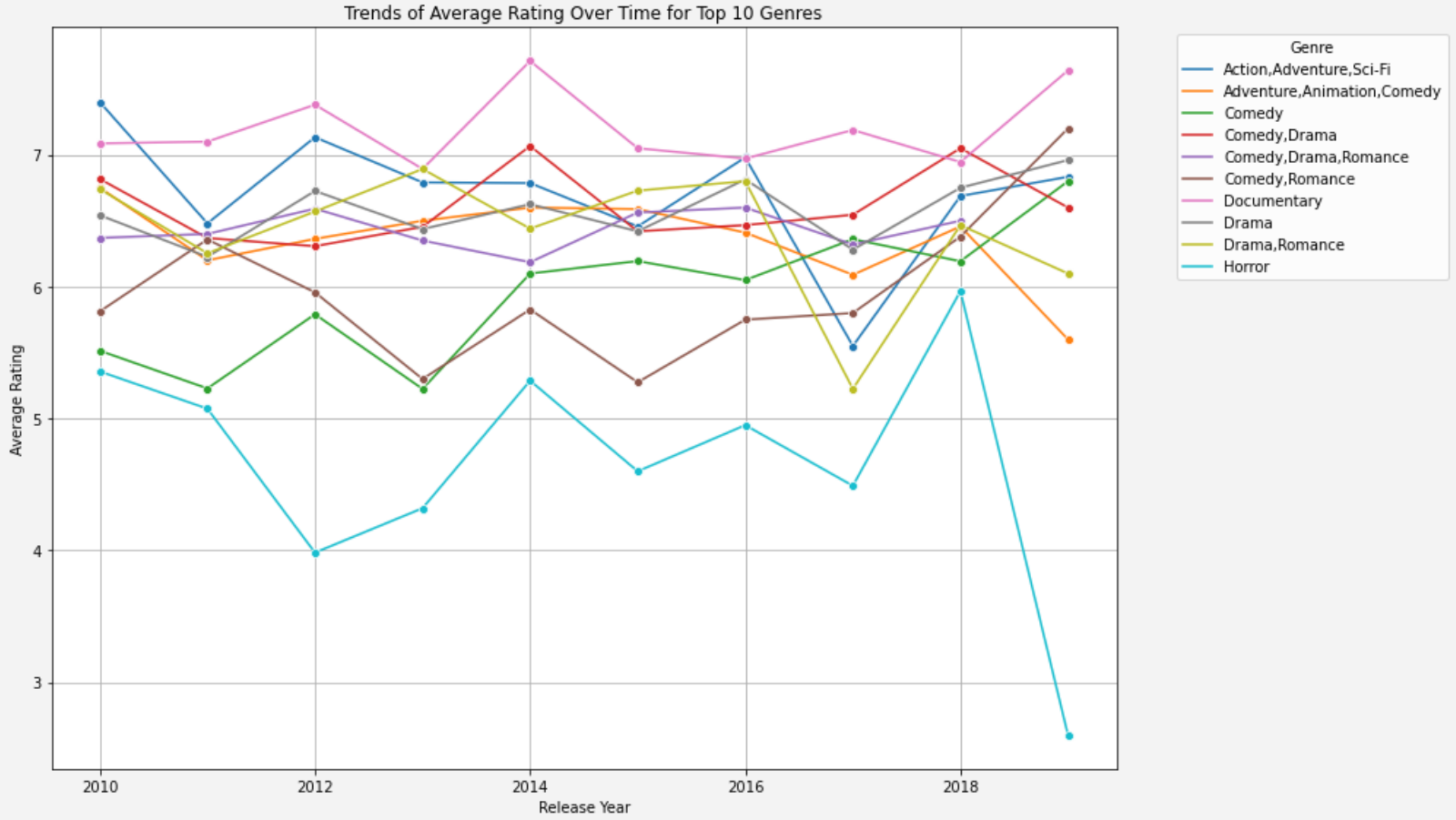
**$23.74B**

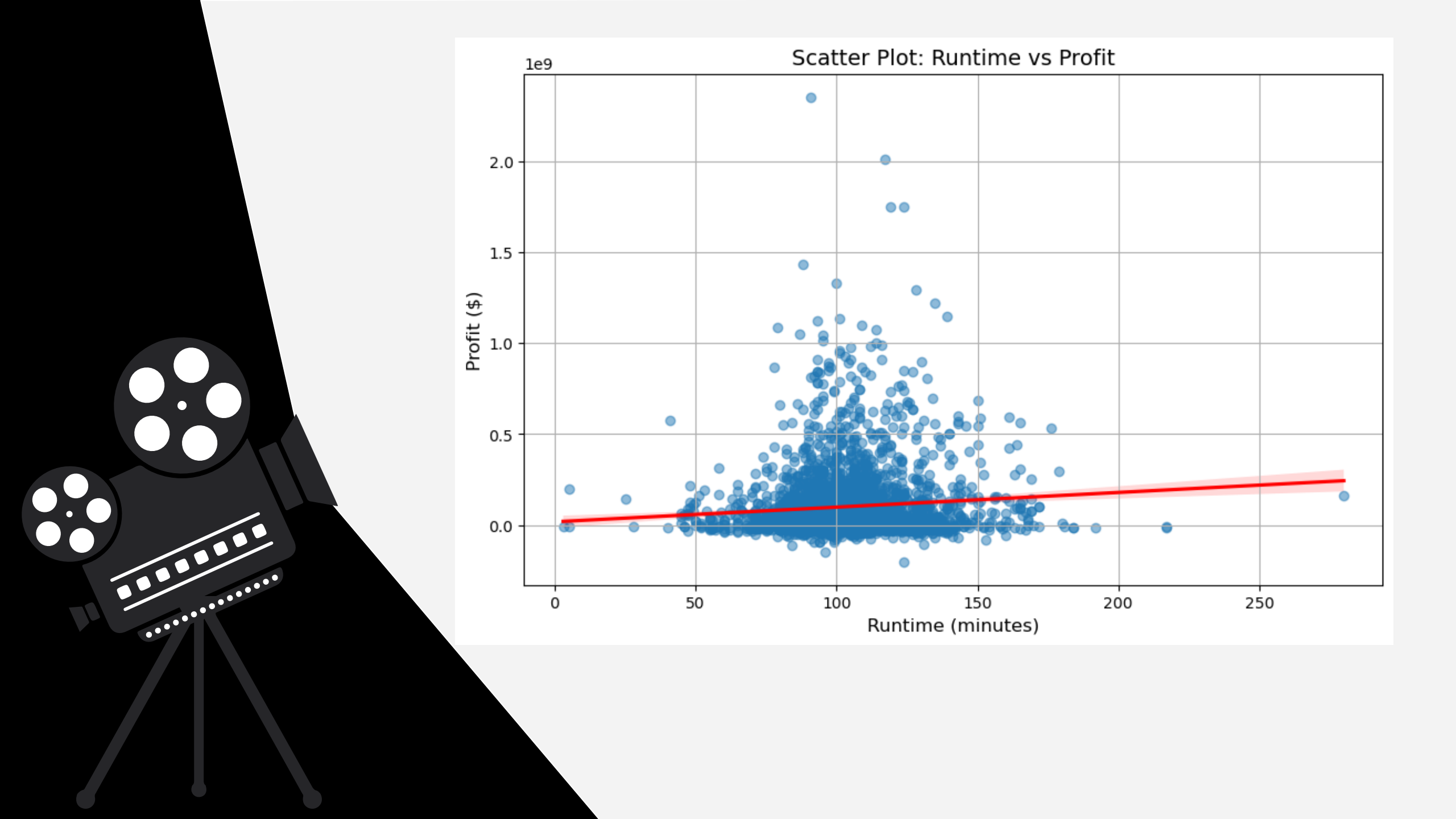
- Drama is the most profitable

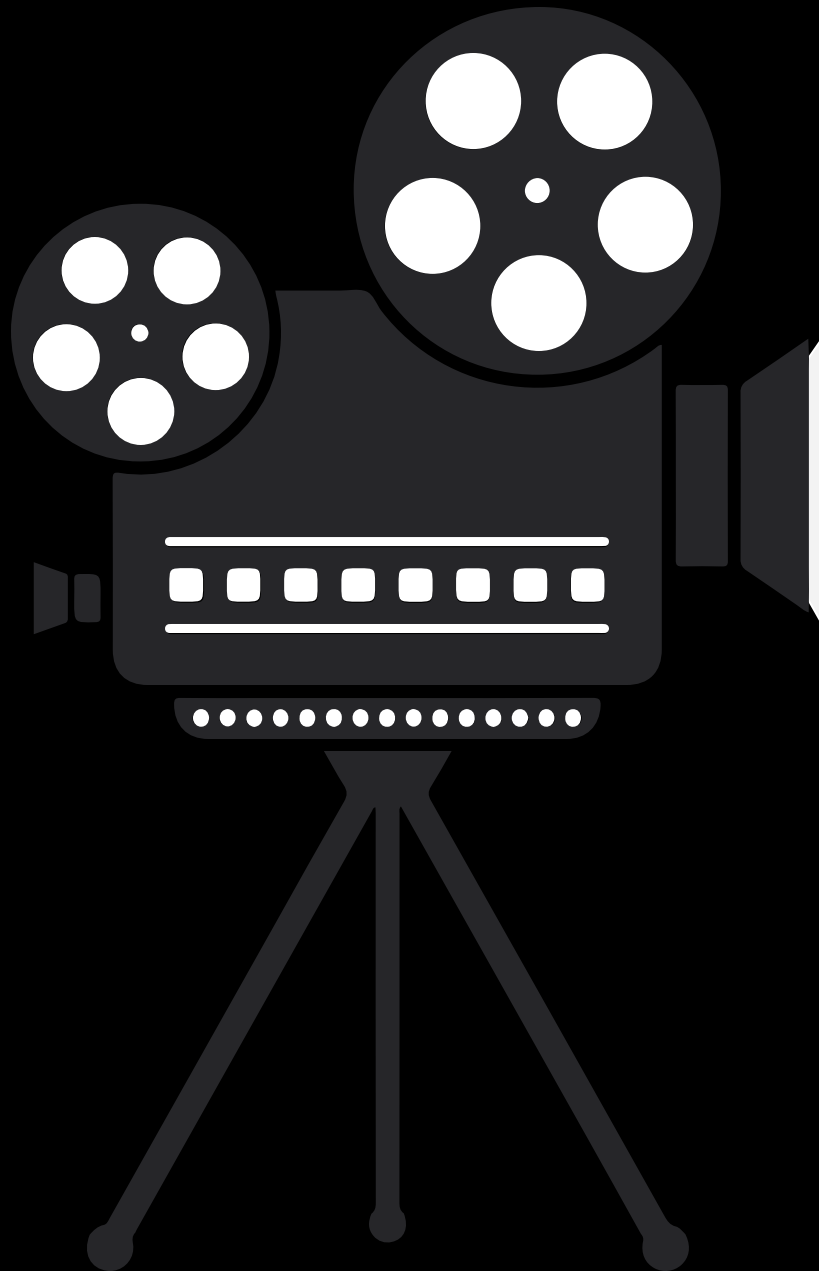
- Bigger budgets, bigger earnings




Top 10 Most Profitable Genres
Action,Animation,Comedy
Action,Comedy,Crime
Adventure,Comedy,Drama
Drama
Adventure,Drama,Fantasy
Action,Comedy,Fantasy
Action,Comedy,Romance
Drama,Mystery,Sci-Fi
Action,Adventure,Sci-Fi
Genres
0.0
0.5
1.0
1.5
2.0
Profit
1e9


Trends of Average Rating Over Time for Top 10 Genres
Average Rating
Release Year
2010
2012
2014
2016
2018
3
4
5
6
7
Genre
Action,Adventure,Sci-Fi
Adventure,Animation,Comedy
Comedy
Comedy,Drama
Comedy,Drama,Romance
Comedy,Romance
Documentary
Drama
Drama,Romance
Horror


Scatter Plot: Runtime vs Profit
1e9
2.0
1.5
1.0
0.5
0.0
Profit ($)
0
50
100
150
200
250
Runtime (minutes)



# Business Recommendations:

- 🎯 Smart Budgeting for Maximum ROI
- 🎥 Diversify Investments
- 🎬 Optimize Movie Runtime for Maximum Profit
- 🎭 Genre Optimization & Market Trends
- 🌟 Beyond Budget: Marketing & Star Power Matter
- 🕰️ Timing is Everything
- 🔬 Future Research & Model Refinement

# Next Steps

- How do we proceed?
  - Check for multicollinearity
  - Normalize residuals
  - Consider marketing spend, genre & star power as predictors

# Questions?

# COMPILED BY:

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- Jabes
- Makena
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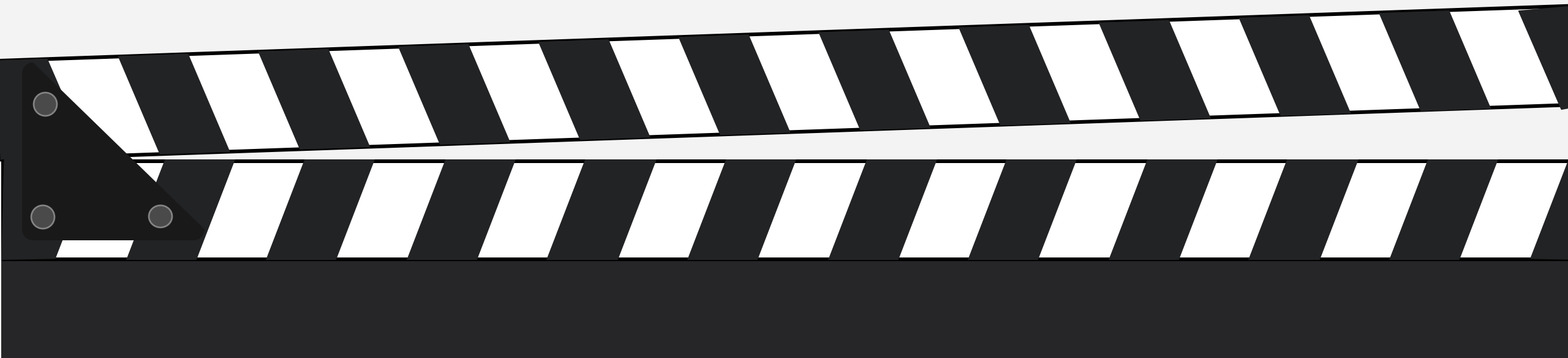

# Thank you!