

Microsoft's Movie Studios Analysis

An exploratory data analysis on movie performance parameters to answer strategic business questions.

Business Understanding

What are we trying to answer?

- The market for original video content is constantly growing. Many big competitors are now creating their own production.
- Our focus is to understand how to navigate and take part in this growing demand so that we can find success with our own productions.
- We will build a strategy for our new productions by answering these 3 questions.
 1. What genres perform the best in ROI and Net Profit?
 2. When is the best time to release our new production?
 3. How does production budget size and runtime minutes effect Net Profit?

How will we do this?

Through use of Exploratory Data Analysis:

Seek Patterns

**Understand our
Investment**

**Identify Top
Performers**



The Data

Where did the information take me?

The Data from the Analysis

- IMDB (runtime minutes and genres)
- The Numbers (world wide gross and production budget)

World-wide gross - production budget = Profit.

Genres, Titles, Runtime, Production Costs, Gross Revenue (Foreign/Domestic), and Release Dates.

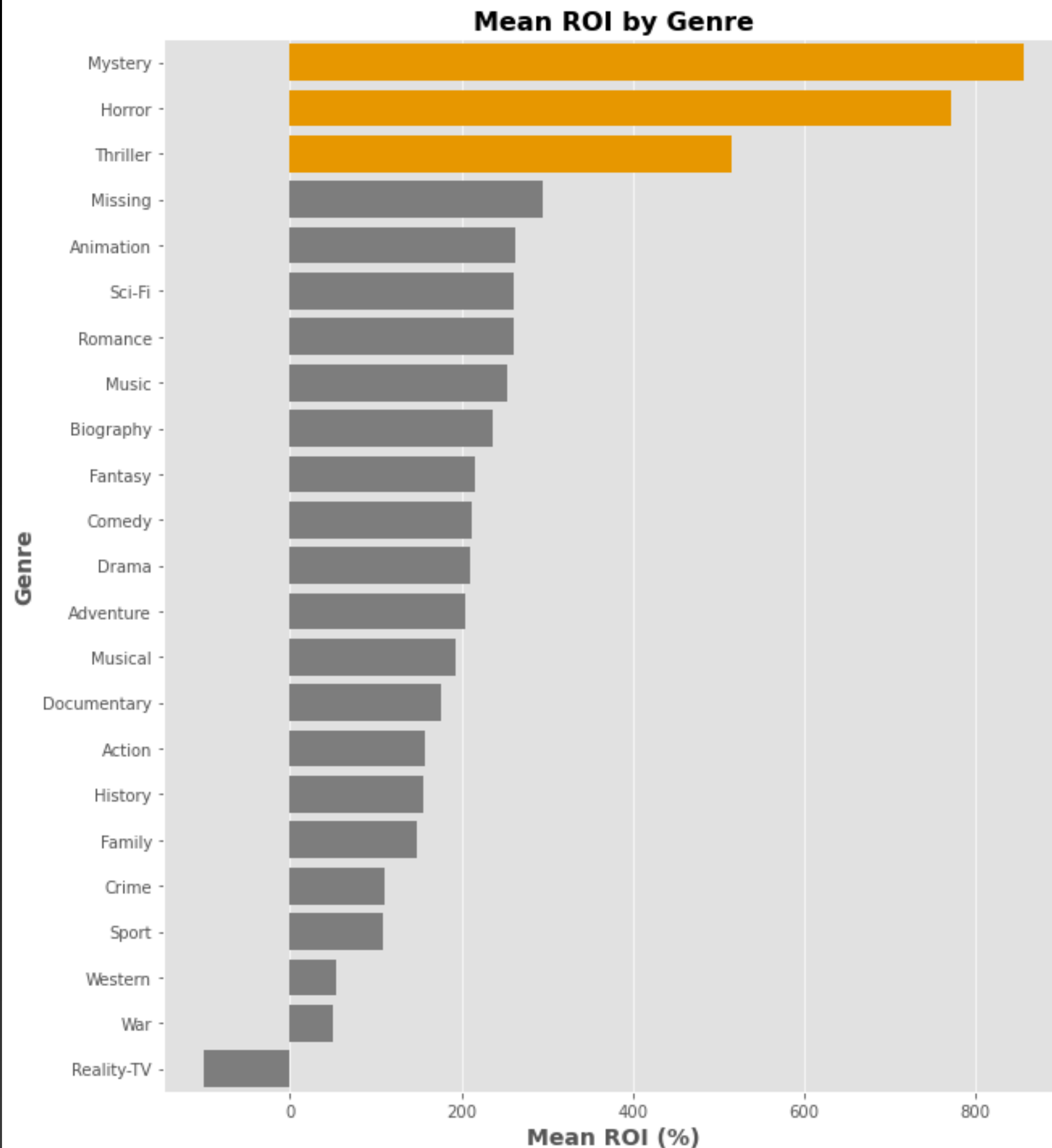
We used SQLite3 and Pandas to combine the data for analysis.

What Genres Performs the Best?

Genre Performance

Return on Investment

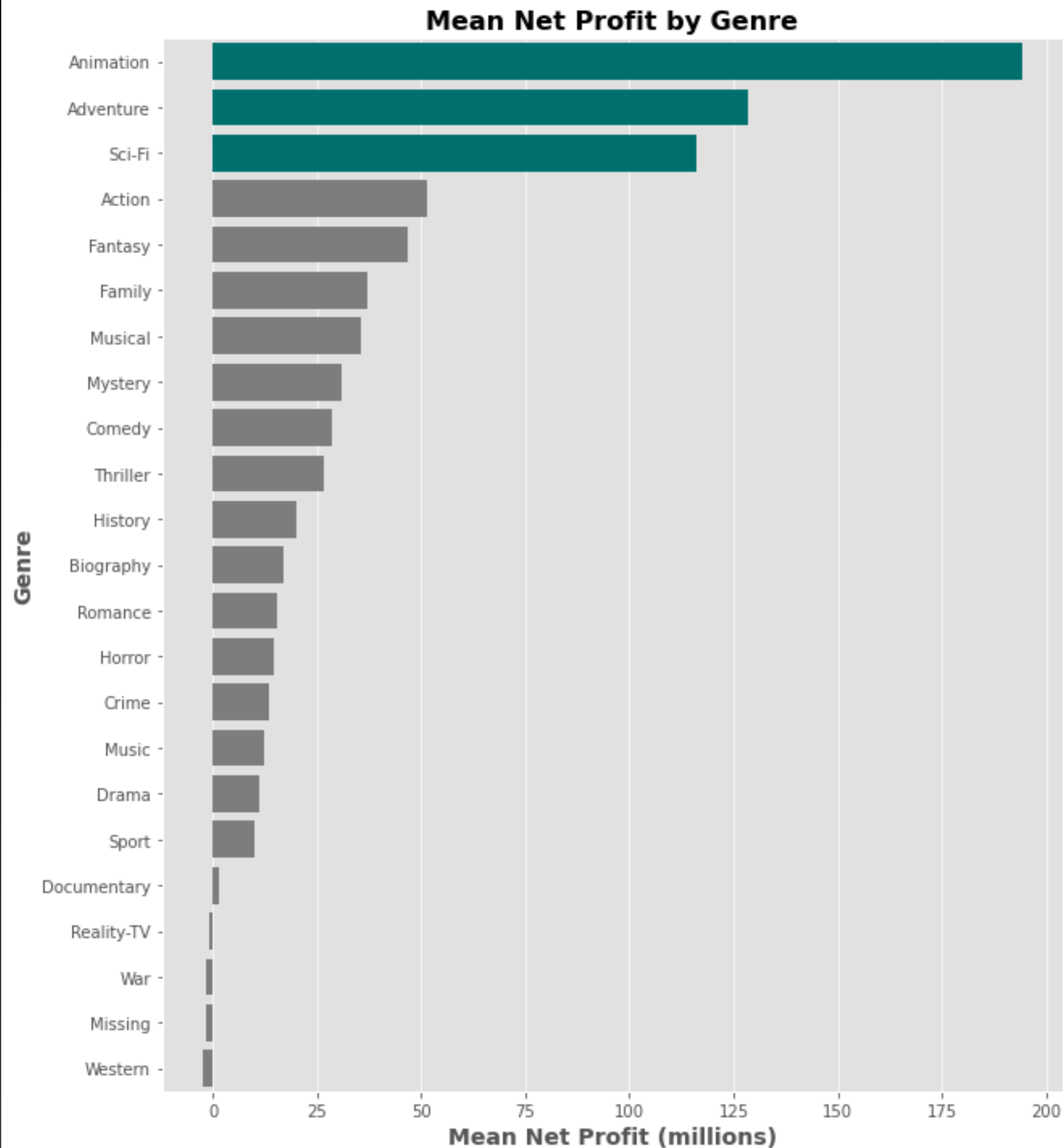
- Top 3 Genres Mystery, Horror, and Thriller.
- generate the most capital for every dollar invested
- Good to generate cash flow from lower investment.
- What about Net Profit?



Genre Performance

Net Profit

- Top 3 Genres Animation, Adventure, and Sci-Fi.
- These genres will generate the highest capital but require big budgets and have lower ROI
- Bigger productions with high investment

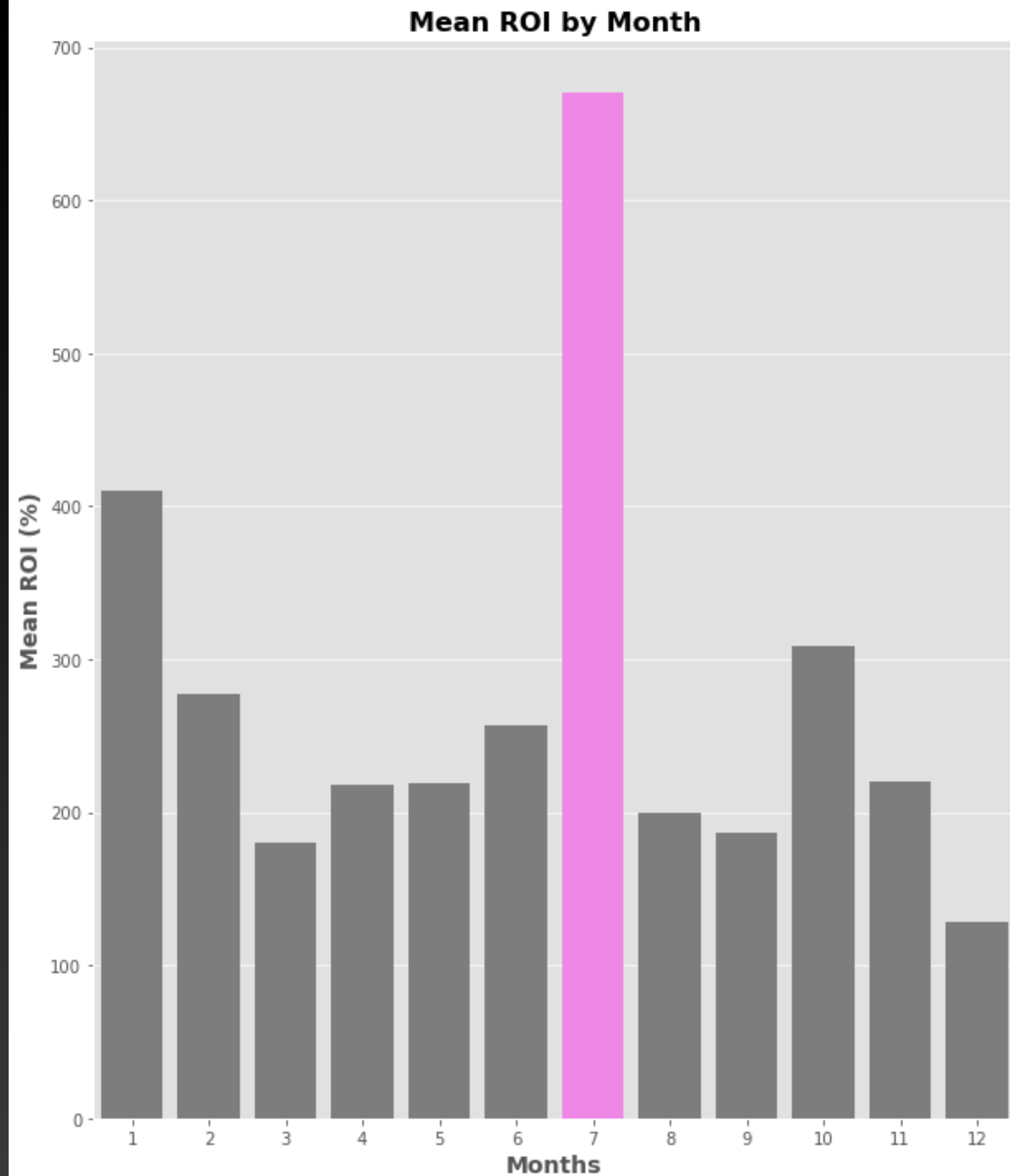


When Should We Release a Film?

Release Strategy

Return on Investment

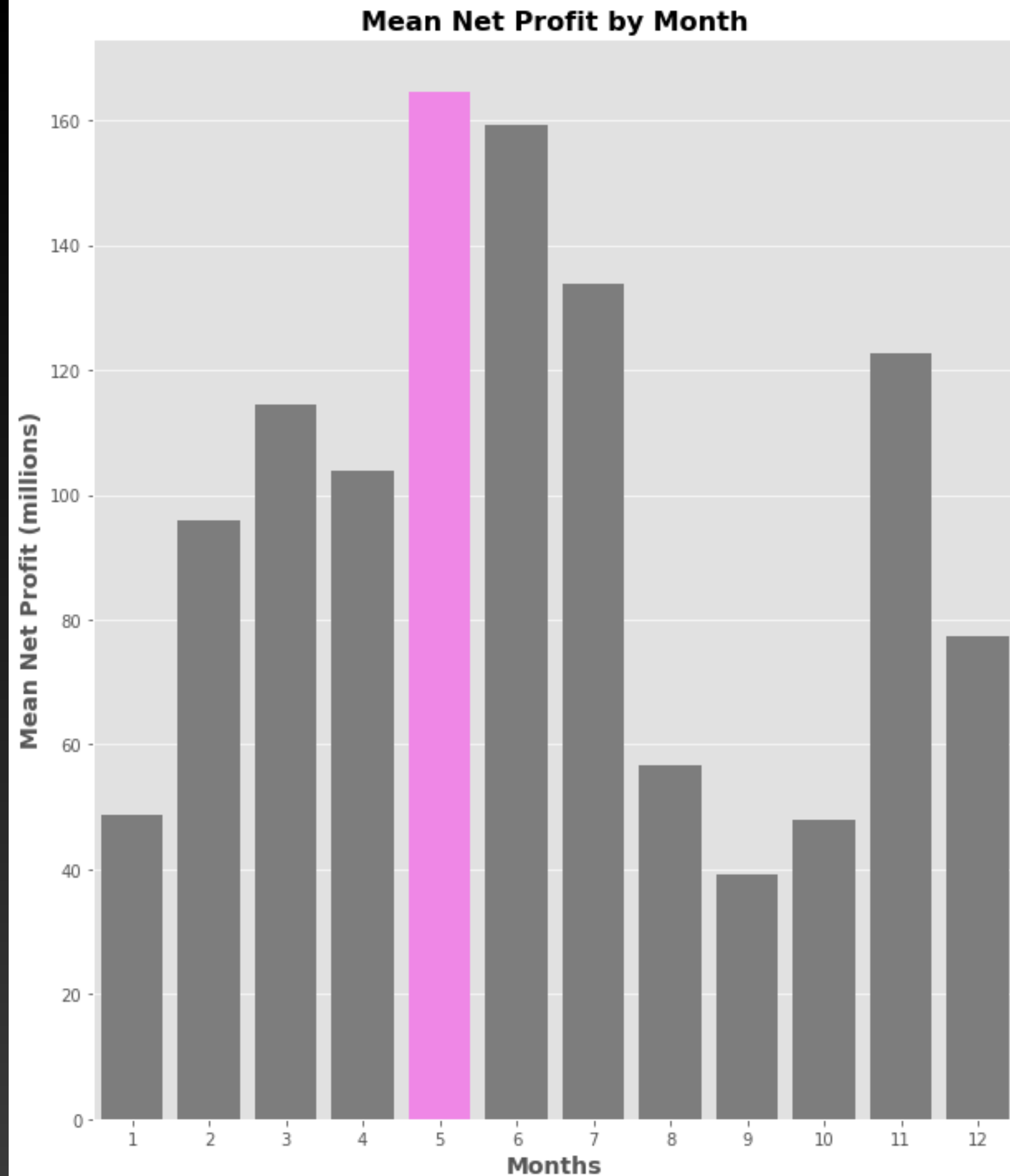
- Best release month for ROI is July.
- High ROI films best released in July.
- Mystery, Horror and Thriller
- Prepares for Autumn Season.



Release Strategy

Net Profit

- Best release month for Net Profit is in May.
- Genres with high Net Profit.
- Animation, Adventure, and Sci-Fi.
- Prepares for Summer Season.



What to Invest In Budget and Runtime?

\$175 Million

Average Production Budget of Top 50 Movies

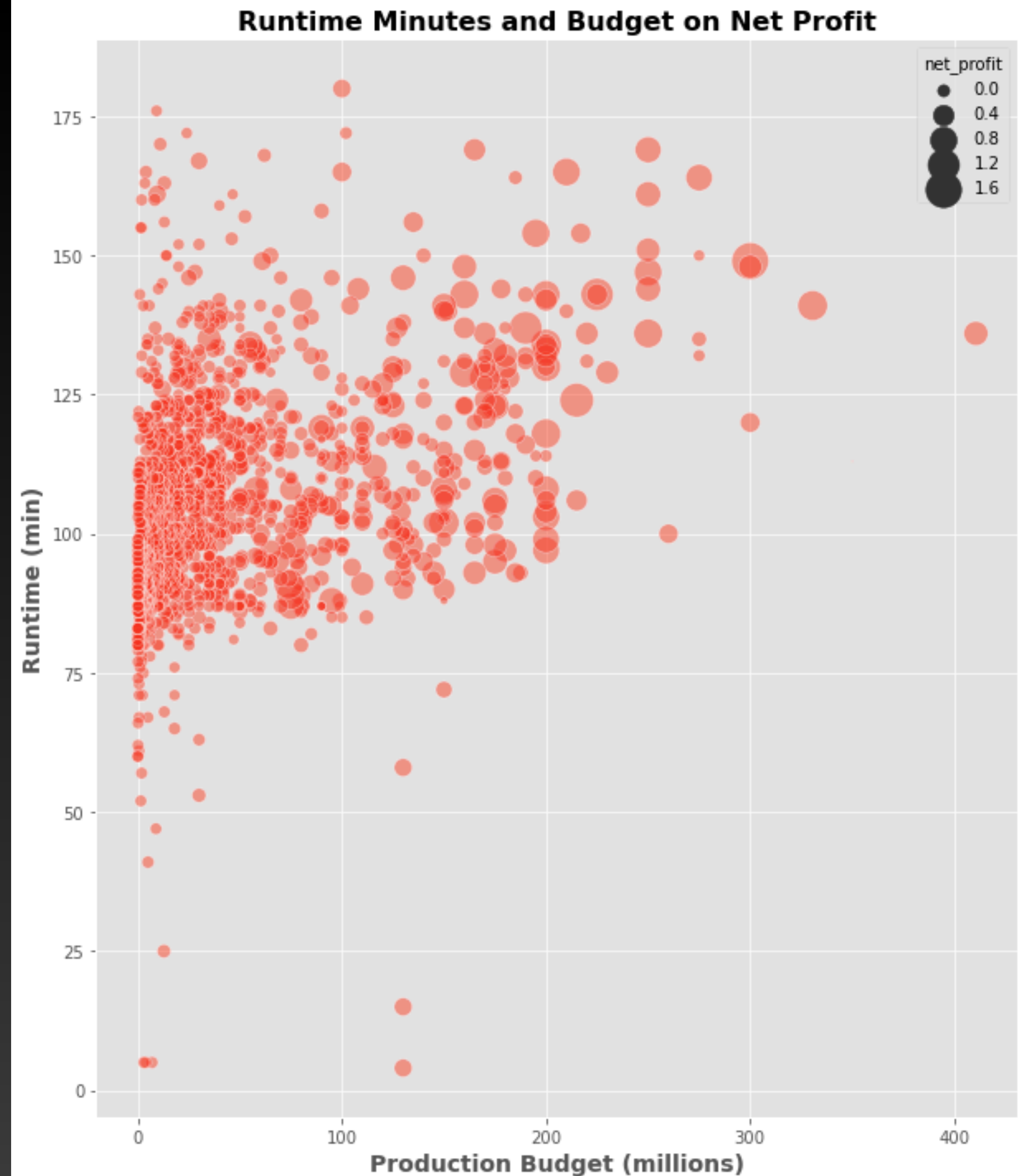
125 Minutes

Average Runtime Minutes of Top 50 Movies

Investment Strategy

Runtime and Budget

- We can see a positive trend
- Higher investment invest in Runtime and Budget the higher Net Profit.
- Invest in at least 125 min of runtime
- Invest in at least \$175 million



Business Recommendation

1. Combination of lower Budget films with high ROI (Mystery, Horror, Thriller) and high Budget films with high Net Profit (Animation, Adventure, Sci-fi).
2. Our high ROI projects will be released in July while our high Net Profit projects will be released in May.
3. Invest in at least \$175 million for our Animation, Adventure, Sci-Fi films with runtime minutes of 125 minutes.



“I don’t make pictures to make money. I make money to make more pictures.”

- Walt Disney

Credits

- Datasets:
 1. IMDB
 2. TheMovieDB
 3. The Numbers
- Size of Final Dataset is 1532 rows
- Github Repo - <https://github.com/kai-cansler/dsc-phase-1-project-v2-4/>
- Walt Disney Quote - <https://www.imdb.com/name/nm0000370/quotes/>
- Camera Photo - <https://www.pexels.com/photo/black-camera-2873486/>