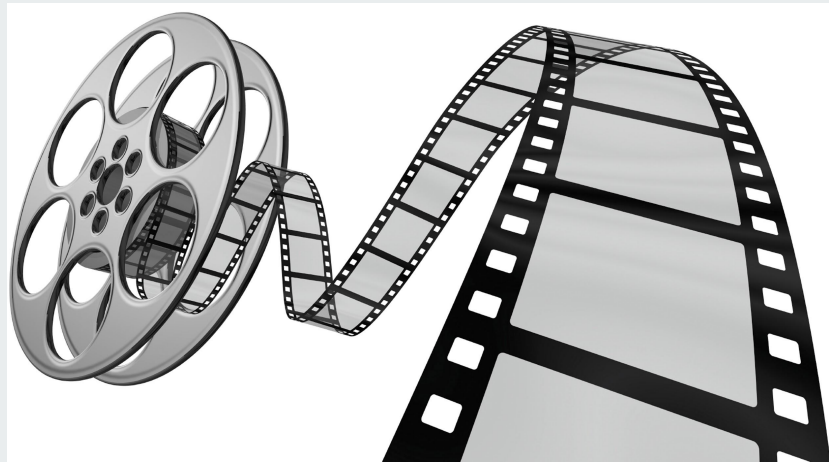# Microsoft Studios Movie Analysis

Exploring the IMDB Movies Database

Presenter: Melody Bass

Business Problem

- What makes a movie successful?
- Success defined as a movies that are highly profitable and also have high user and critic reviews.

Data

- The dataset for this exploration was found on [Kaggle](#)

- Contains an extensive dataset for over 75,000 movies from IMDB

- Focus on movies released in the United States after the year 2000.

Movie Features Analyzed

- Movie length
- Movie release month
- Production budget
- Genres
- Directors
- Actors

Methods

Compare features of successful movies to the average of our variables:
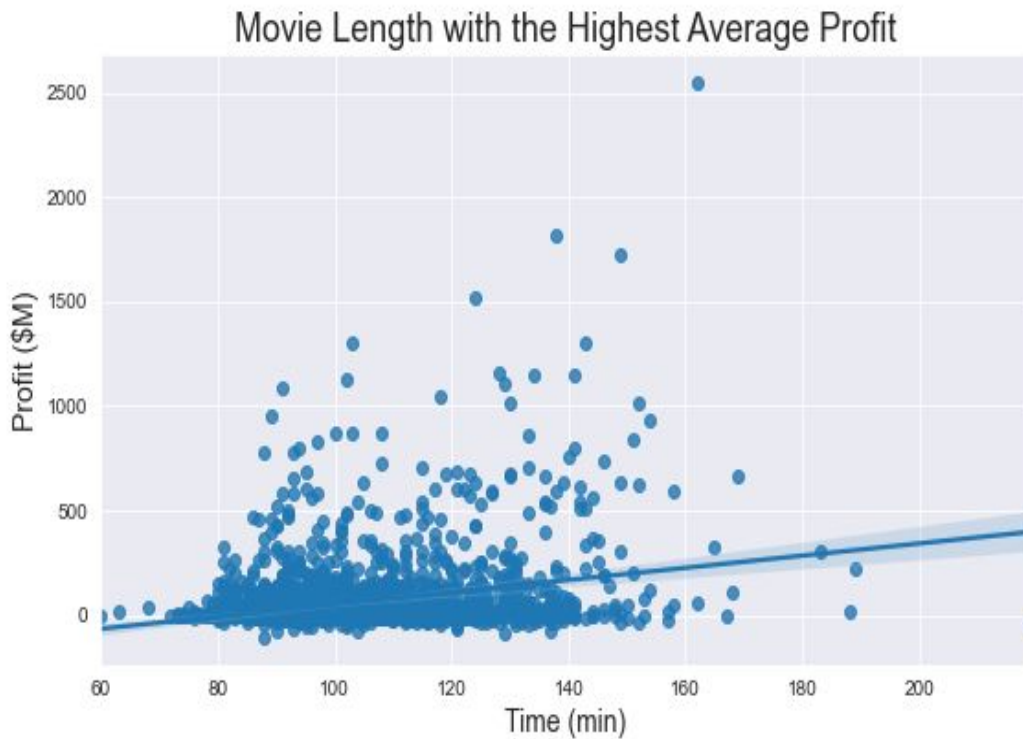
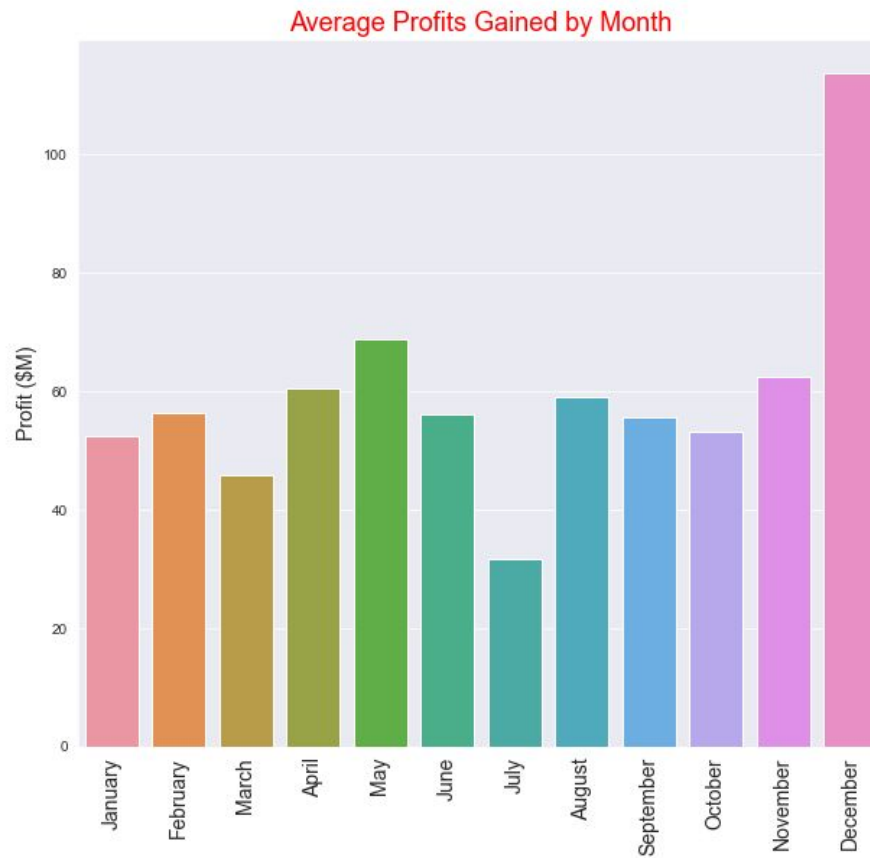- Profit
- User Ratings
- Critic Ratings

Movie length

- Maximum profits : 162 minutes
- Maximum User Reviews: 152 minutes
- Maximum Critic Reviews: 165 minutes

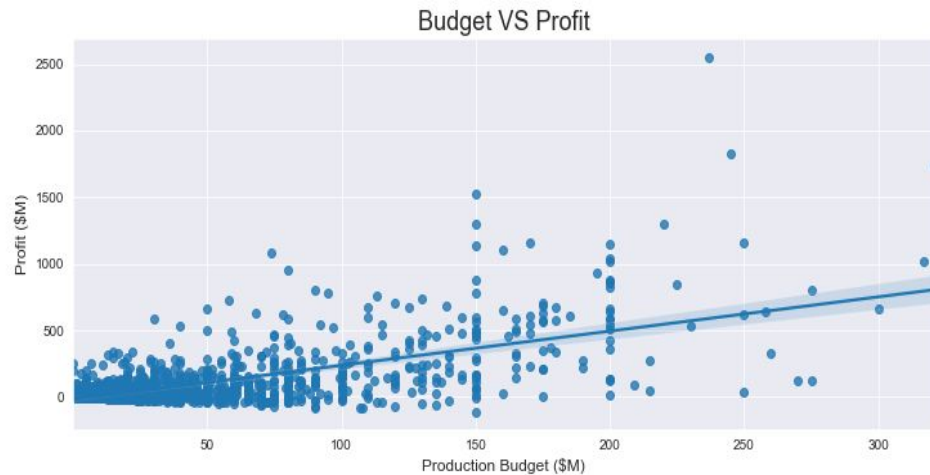Movie length between 152 - 165 minutes recommended

Movie Length with the Highest Average Profit

Release Month

Films released in December outperform releases other times of the year

Average Profits Gained by Month
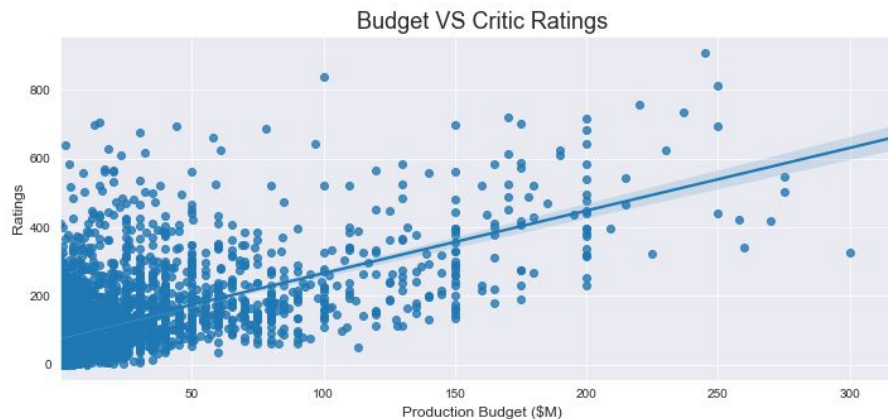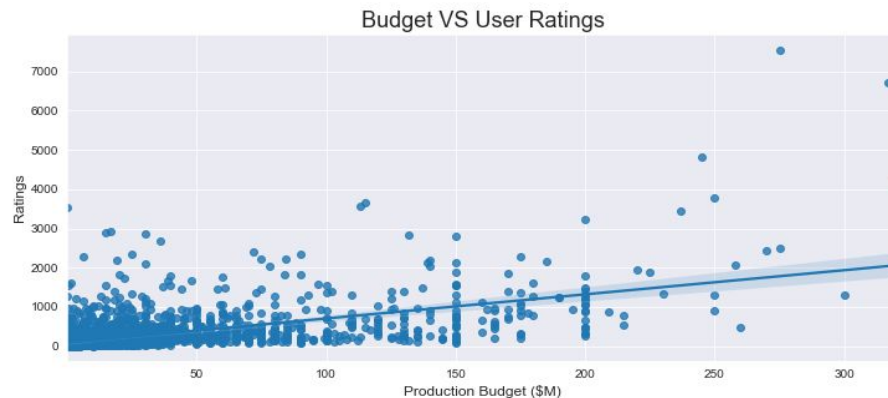
Production budget

- There is a moderate positive relationship between production budget and profit.

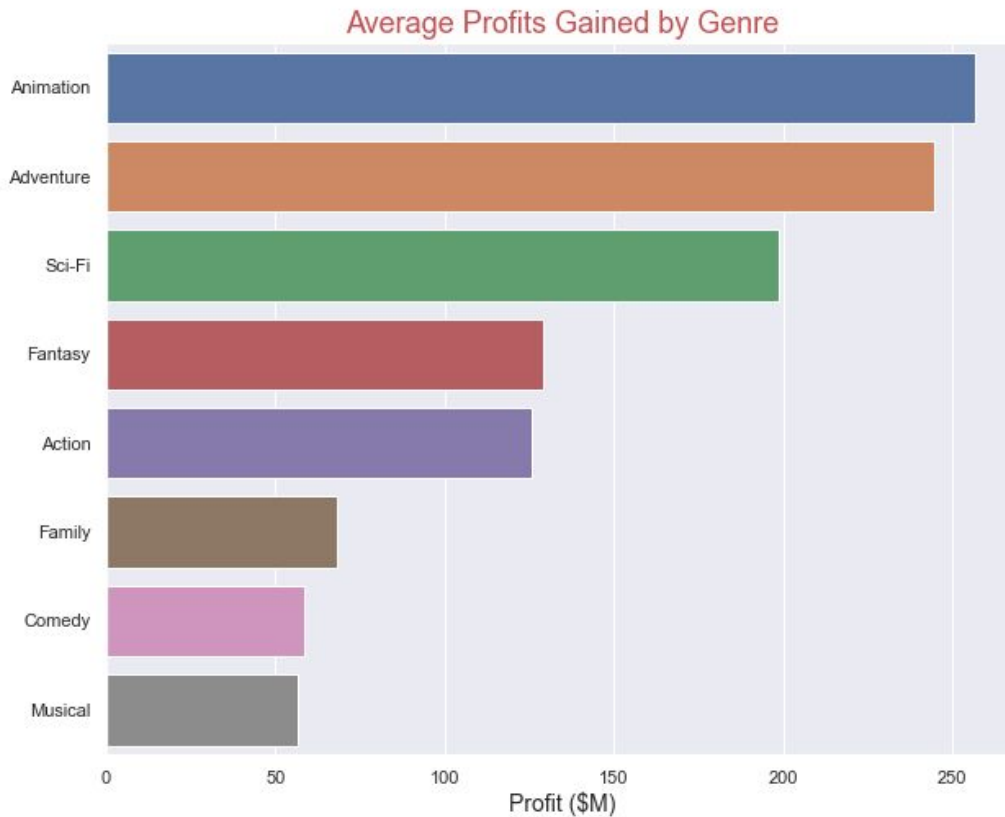

Budget VS Profit

Production budget

- There is a moderate positive relationship between production budget and ratings.

- **High production budget films yield higher profits and ratings.**

Budget VS User Ratings

Budget VS Critic Ratings

Genres

Animation and Adventure are the most profitable genres

Adventure is rated high among users and critics

Average Profits Gained by Genre
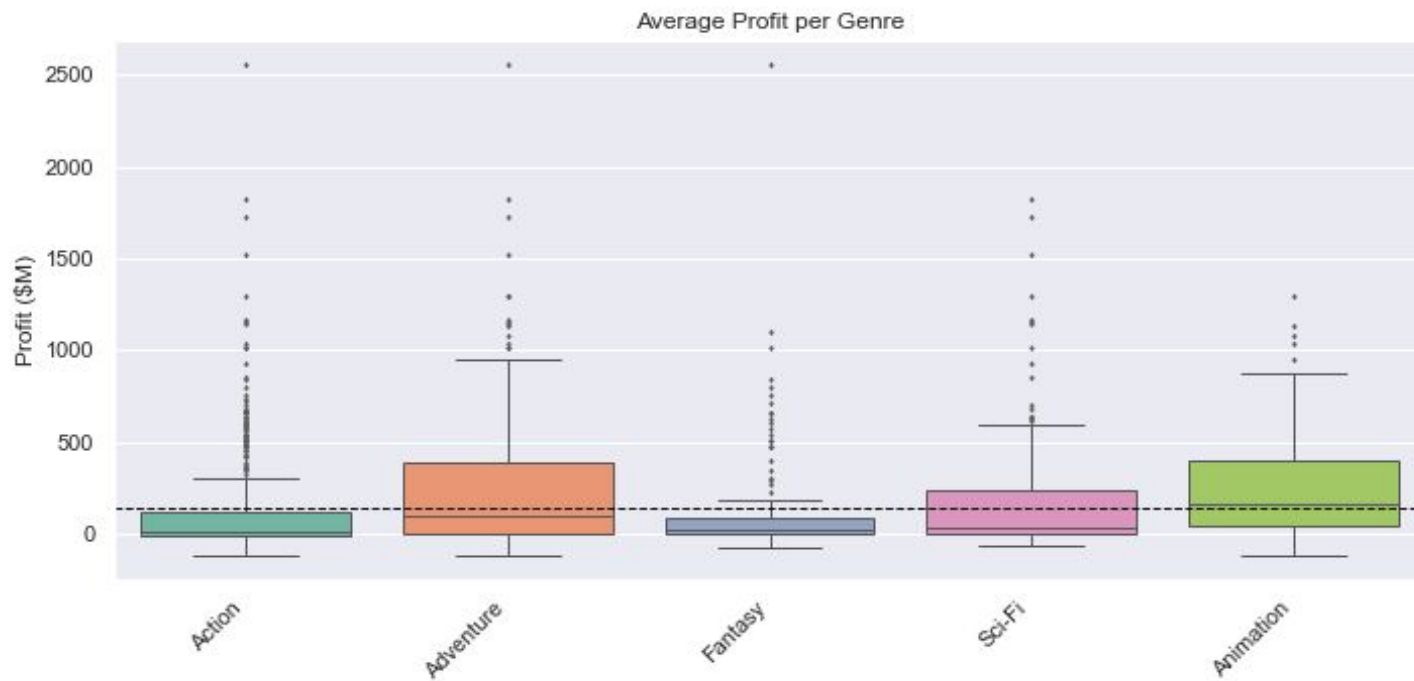
Genres

Animation and Adventure have the highest budget, profit and gross income

Revenue and Budget of Animation, Adventure, Action, Sci-Fi, and Fantasy
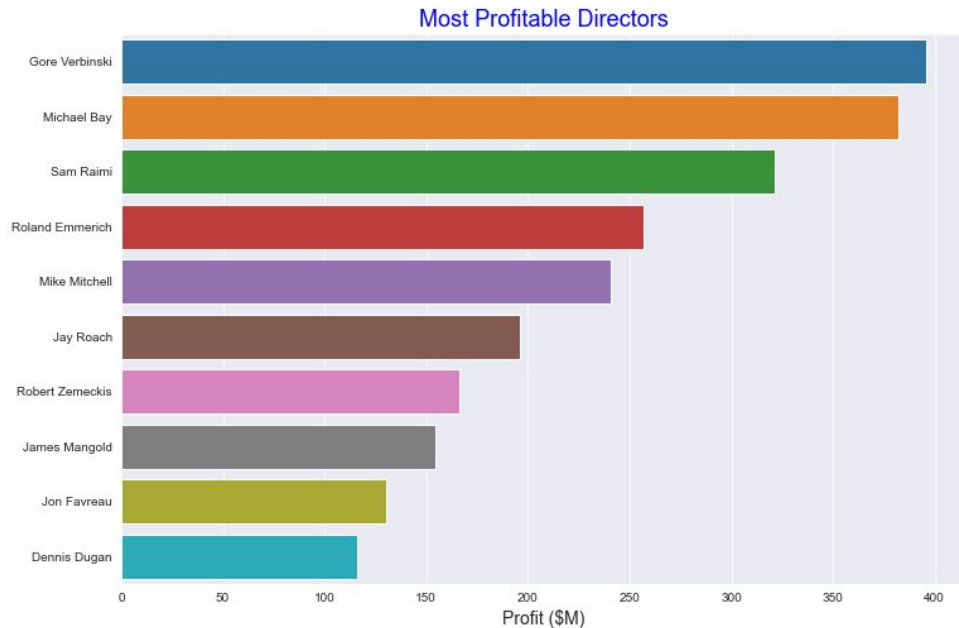
Genres

Average Profit per Genre
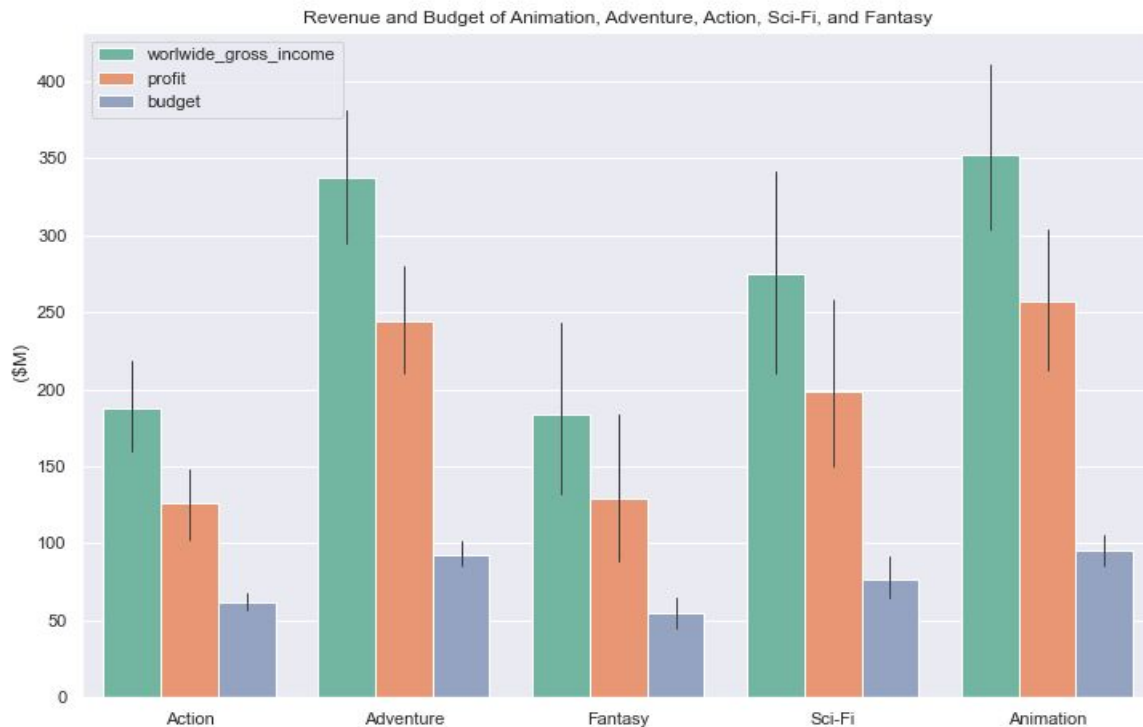
Directors

Directed more than 5 movies

- Gore Verbinski
- Michael Bay
- Sam Raimi

Most Profitable Directors

Directors with the Highest Critic Ratings
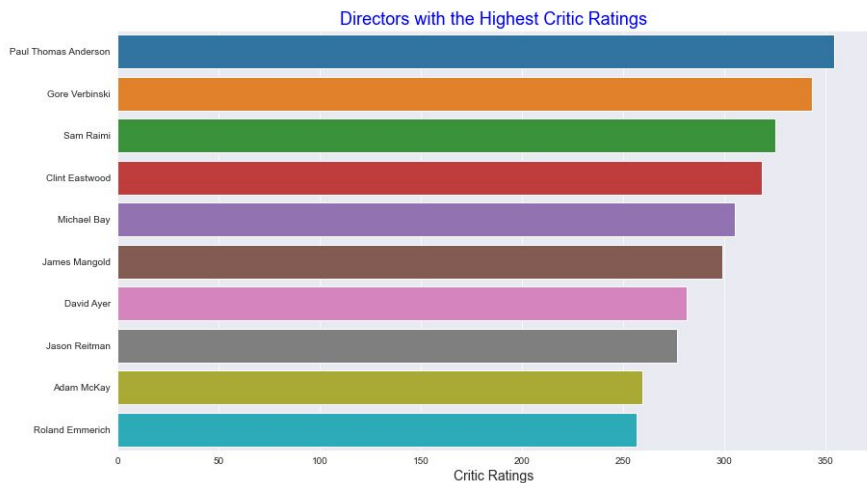
Gore Verbinski and Sam Raimi are top overall directors

Directors with the Highest Average User Ratings
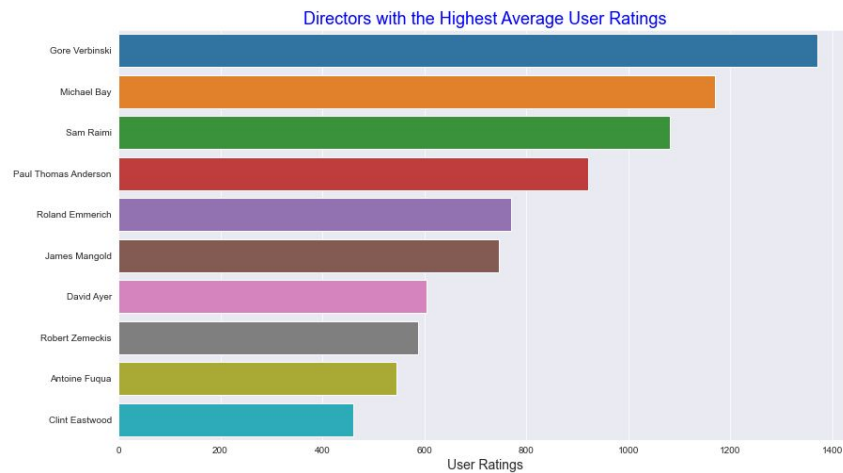
Actors

Appeared in more than 10 films

- Paul Bettany
- Josh Gad
- Alan Tudyk
- Don Cheadle
- Robert Downey Jr
- Chris Hemsworth

The Most Profitable Actors
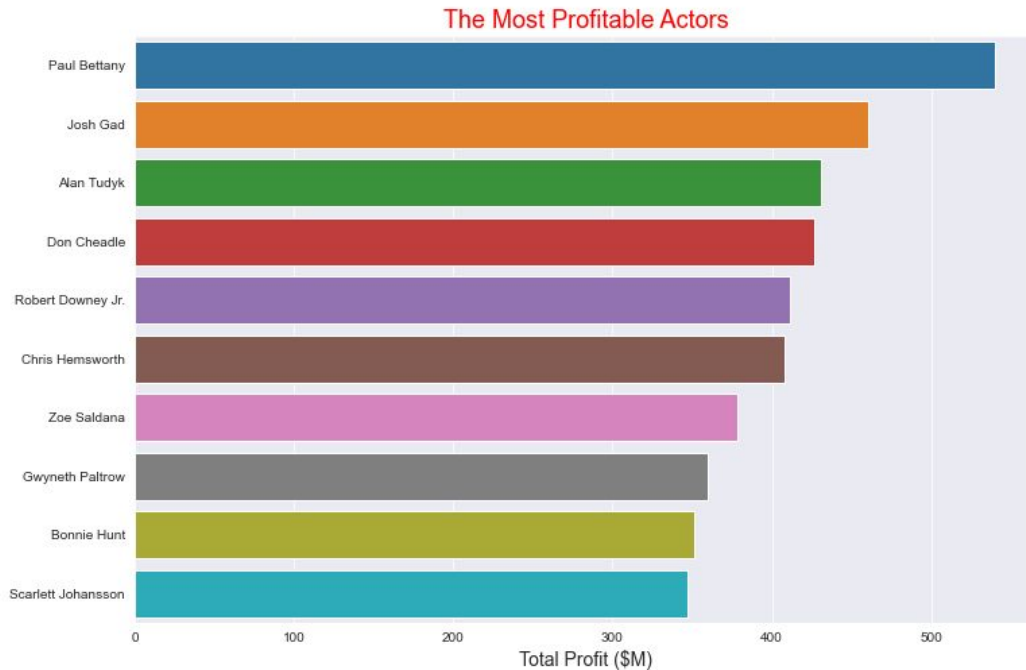
Popular Actors with the Highest User Ratings

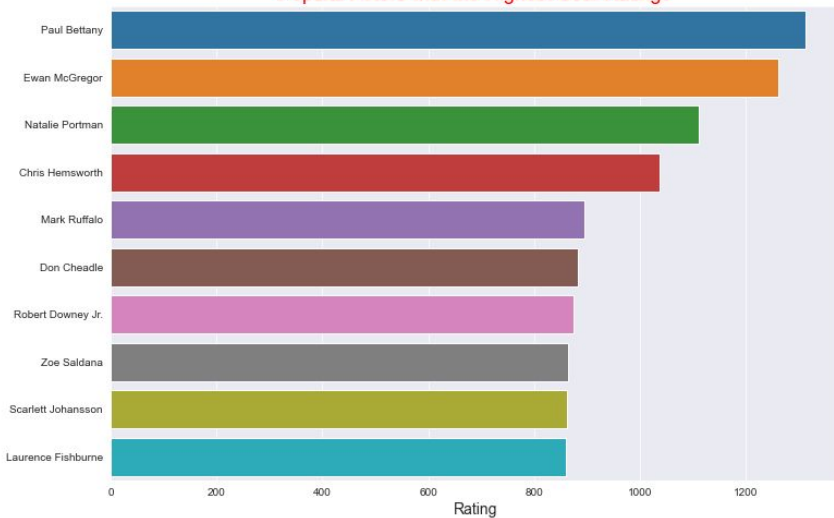| Actor	Rating
Paul Bettany	~1300
Ewan McGregor	~1260
Natalie Portman	~1110
Chris Hemsworth	~1030
Mark Ruffalo	~900
Don Cheadle	~880
Robert Downey Jr.	~870
Zoe Saldana	~860
Scarlett Johansson	~860
Laurence Fishburne	~860

Popular Actors with the Highest Critic Ratings

Actor	Rating
Paul Bettany	~440
Chris Hemsworth	~410
Scarlett Johansson	~375
Robert Downey Jr.	~365
Idris Elba	~365
Gwyneth Paltrow	~340
Natalie Portman	~330
Josh Brolin	~325
Mila Kunis	~325
Don Cheadle	~320

Paul Bettany, Robert Downey Jr, and Chris Hemsworth are top overall actors

Conclusions

- Create high budget films that are 152 - 165 minutes long and release these films in December.
- Make Animation or Adventure films.
  - Adventure - more risk/ reward
  - Animation - less risk
- Seek directors and actors with high profits and ratings
  - Gore Verbinski and Sam Raimi.
  - Paul Thomas Anderson and Clint Eastwood are good choices for director if looking to make critically acclaimed films.
  - Paul Bettany, Robert Downey Jr and Chris Hemsworth.
  - Natalie Portman and Gwyneth Paltrow if interested in making critically acclaimed films.

Next Steps

- Determine top directors and actors by genre.
- Evolving to new world where streaming services are the new box office
- Explore the effect streaming services and changes to how studios are premiering on the performance of films.

Thank you for your time and attention!

Email: meljoy1099@gmail.com
GitHub repository: <u>Github Link</u>