# Microsoft Movie Studio Analysis

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Summary

So you want to open a movie studio? GREAT!

My completed analysis will provide insight into rating importance, which genres you should focus on and just how long your movie runtimes should be.

Outline

- Business Problem
  - *My approach to your task*
- Data
  - *Introduction to the data*
- Methods
  - *How I prepared/analyzed data*
- Results
  - *The findings*
- Conclusions
  - *Recommendations*
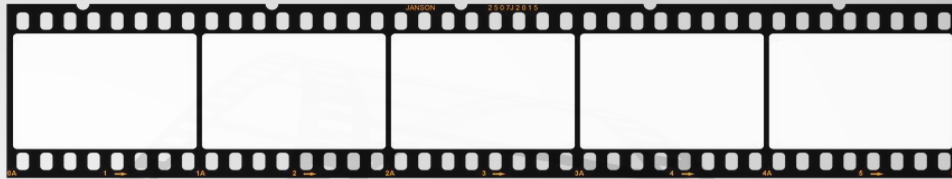
Business Problem

So you want a piece of the movie-making pie, but you don't know where to start... Who could blame you!

Here are the things you should be considering:

- Genre
- Movie Length
- Ratings

Data

IMDB - well known source for film information

- Title Basics dataset of 146,144 titles
- Title Ratings dataset of 73,856 title numbers

Box Office Mojo - IMDB company, dedicated to tracking box office revenue in an algorithmic manner

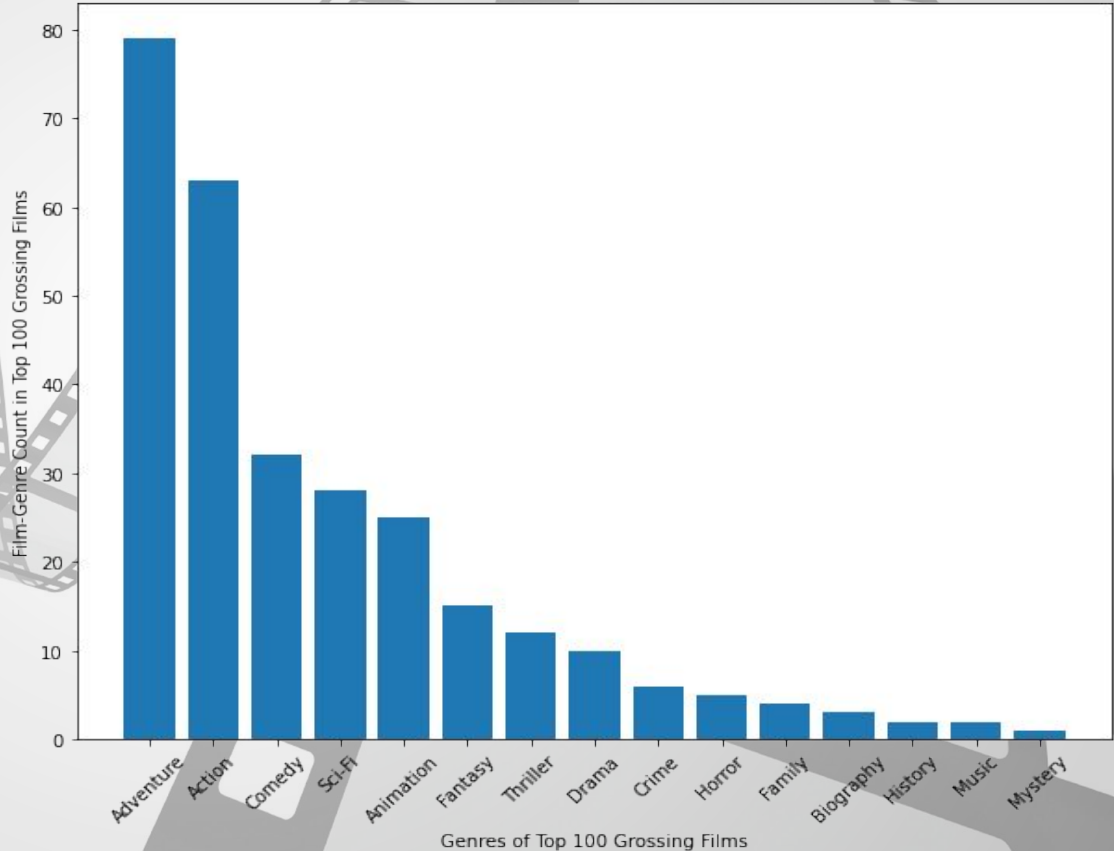- Gross Profit Data for 3387 titles both domestic and foreign markets

Methods

Using exploratory data analysis, statistics, and data visualization, I identified what I believe to be important factors in a films success rate.
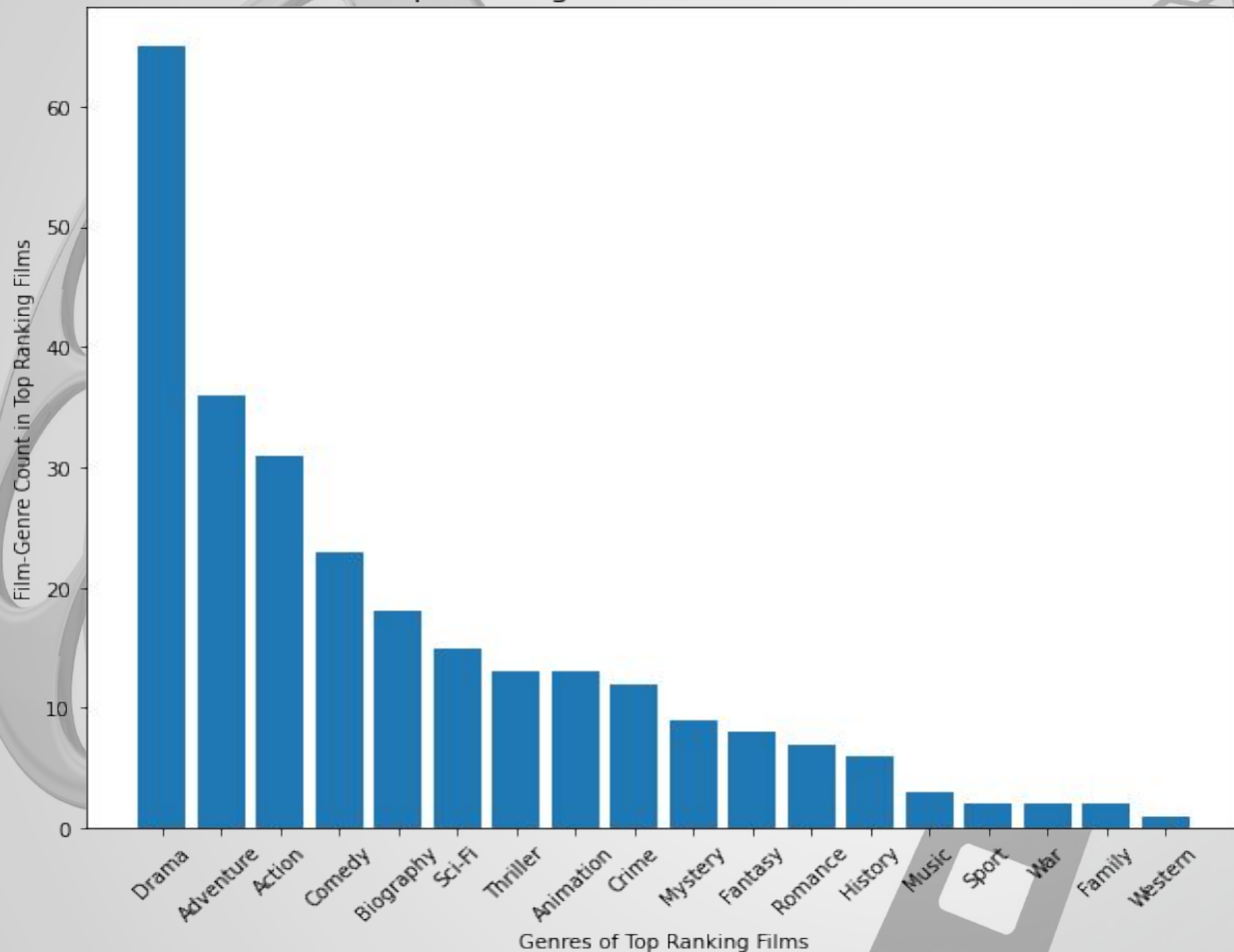
Results

Genres

As shown here, and on the following slide, top performing genres include Adventure, Action, Comedy, Sci-Fi, Animation, Drama, Thriller, Fantasy, and Biography.

Top Ranking Domestic Movie Genres

Results

Genres cont.

Top Ranking genres closely match top grossing genres, with the addition of the Biography genre.
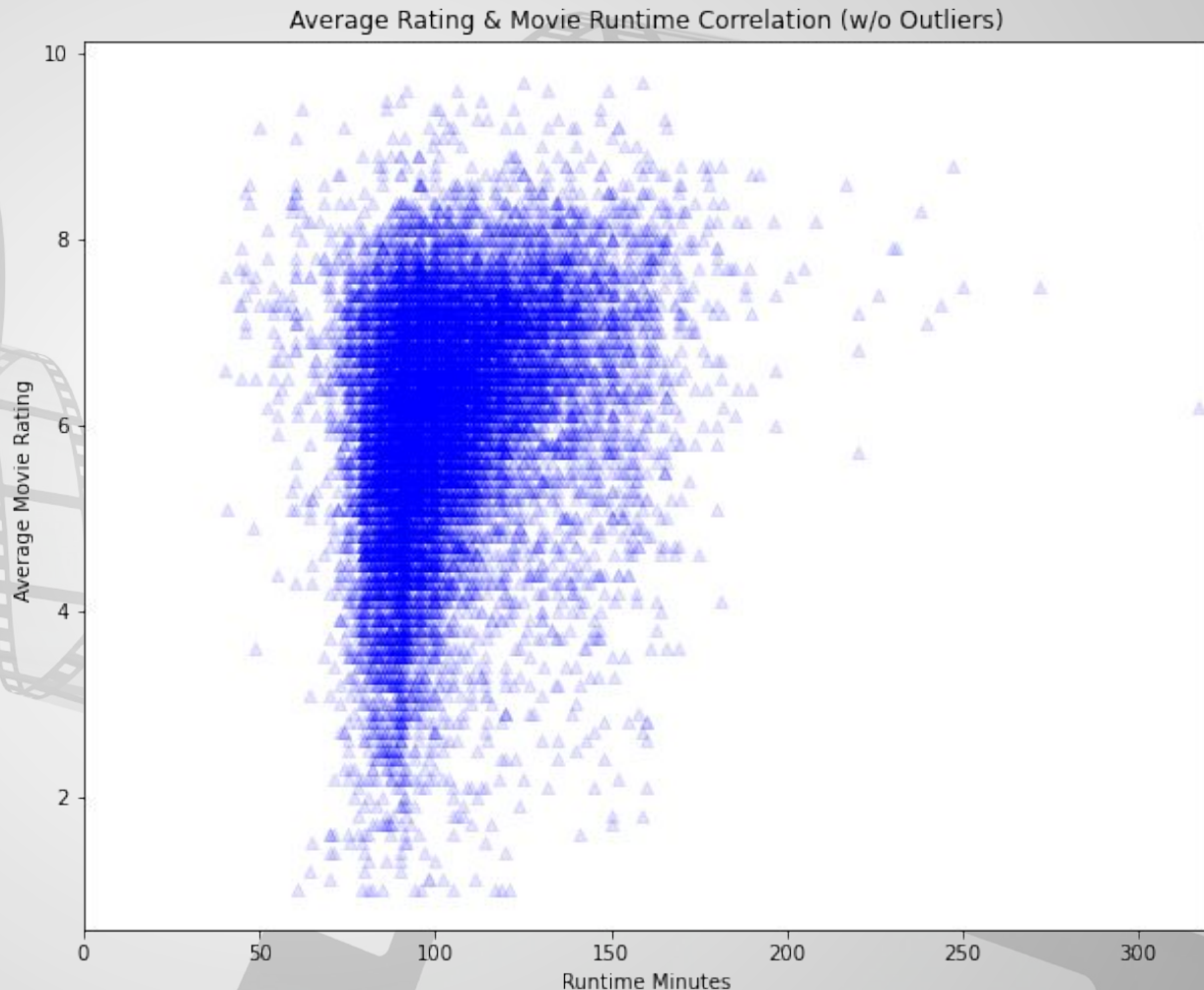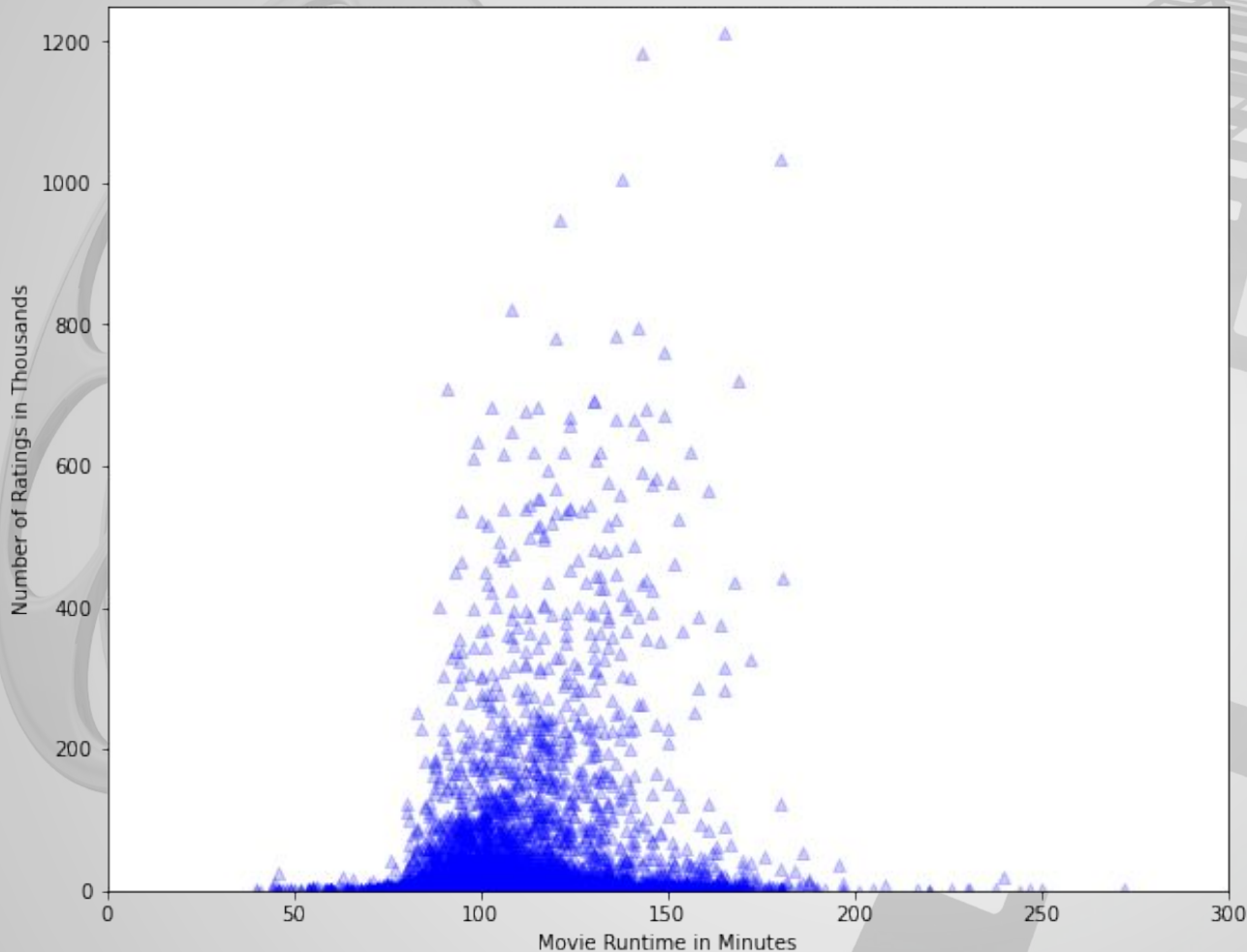
Results

Movie Length

How long should the movie be?

Try to stay around 100 minutes!

The scatter plot here shows a clear runtime range for optimal average rating.

Average Rating & Movie Runtime Correlation (w/o Outliers)

Results

Movie Length cont.

Number of Votes & Movie Runtime Correlation (w/o Outliers)
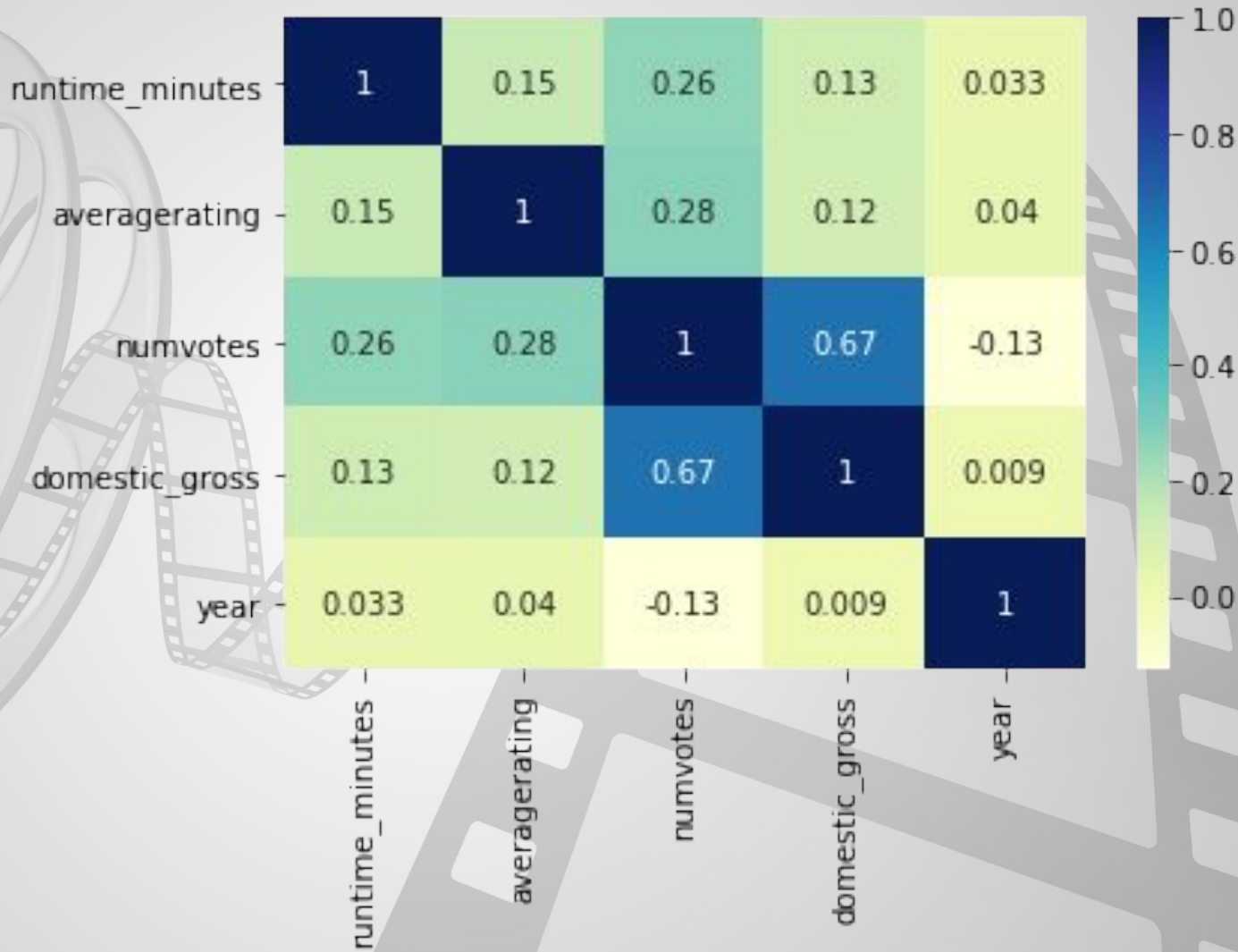
Inline with the average rating correlation, we see clustering around the 100 minute mark for overall number of ratings as well.
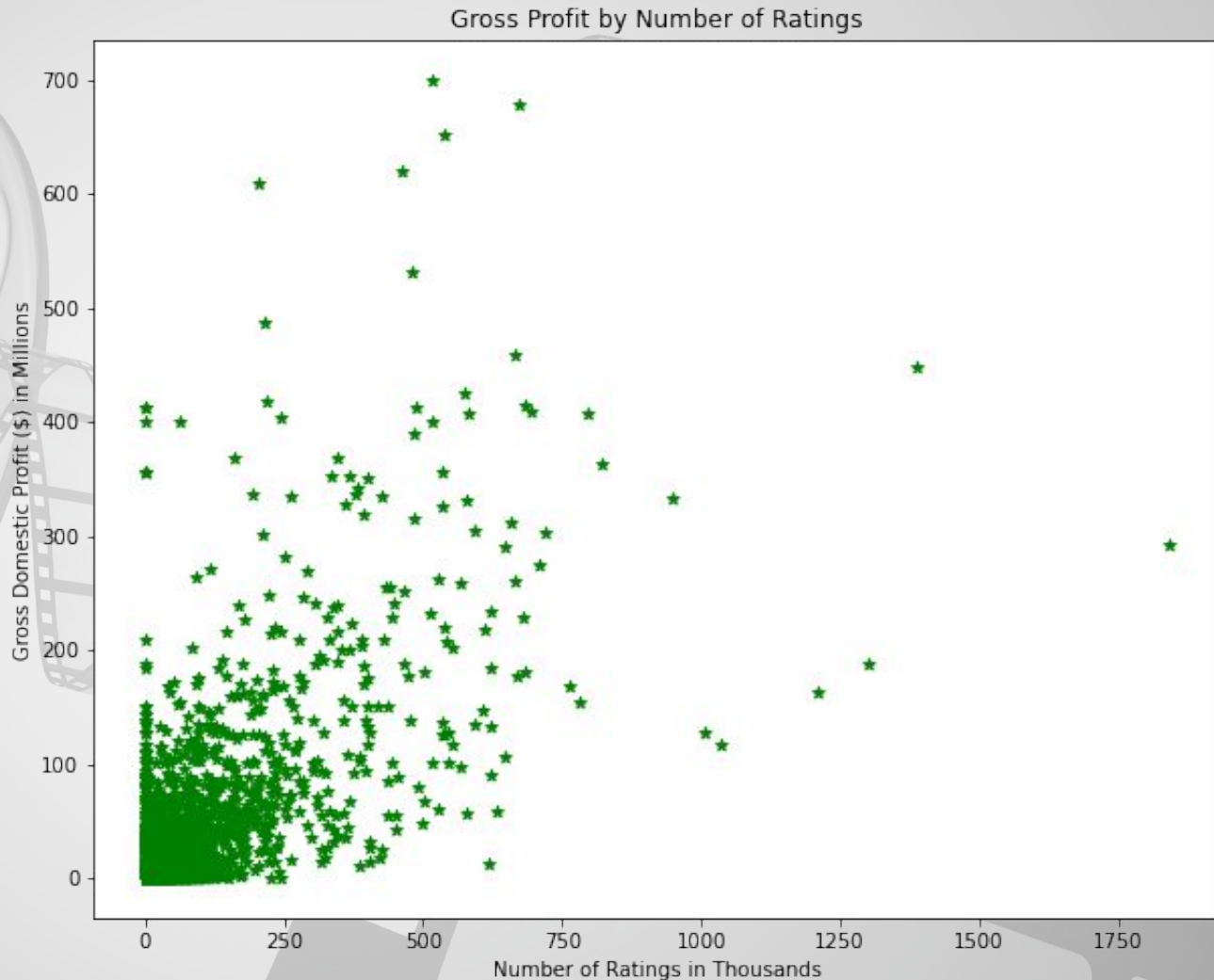
Results

Rating importance

With a correlation of .67 in the heatmap here, we see a pretty strong positive correlation between the number of ratings and the domestic gross profit.

Results

Rating importance cont.

Scatter plot representation of the heatmap previously shown.

Gross Profit by Number of Ratings

In Conclusion...

- Target the highest ranked and highest grossing genres
- Be mindful of the film run times to optimize rating
- Ratings are important to promote profitability!

Limitations of this analysis include the lack of in depth insight into genres and their relationships with gross profit due to lack of time. Coming soon to a data science student near you...

Thank You!

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