Microsoft Movie studio

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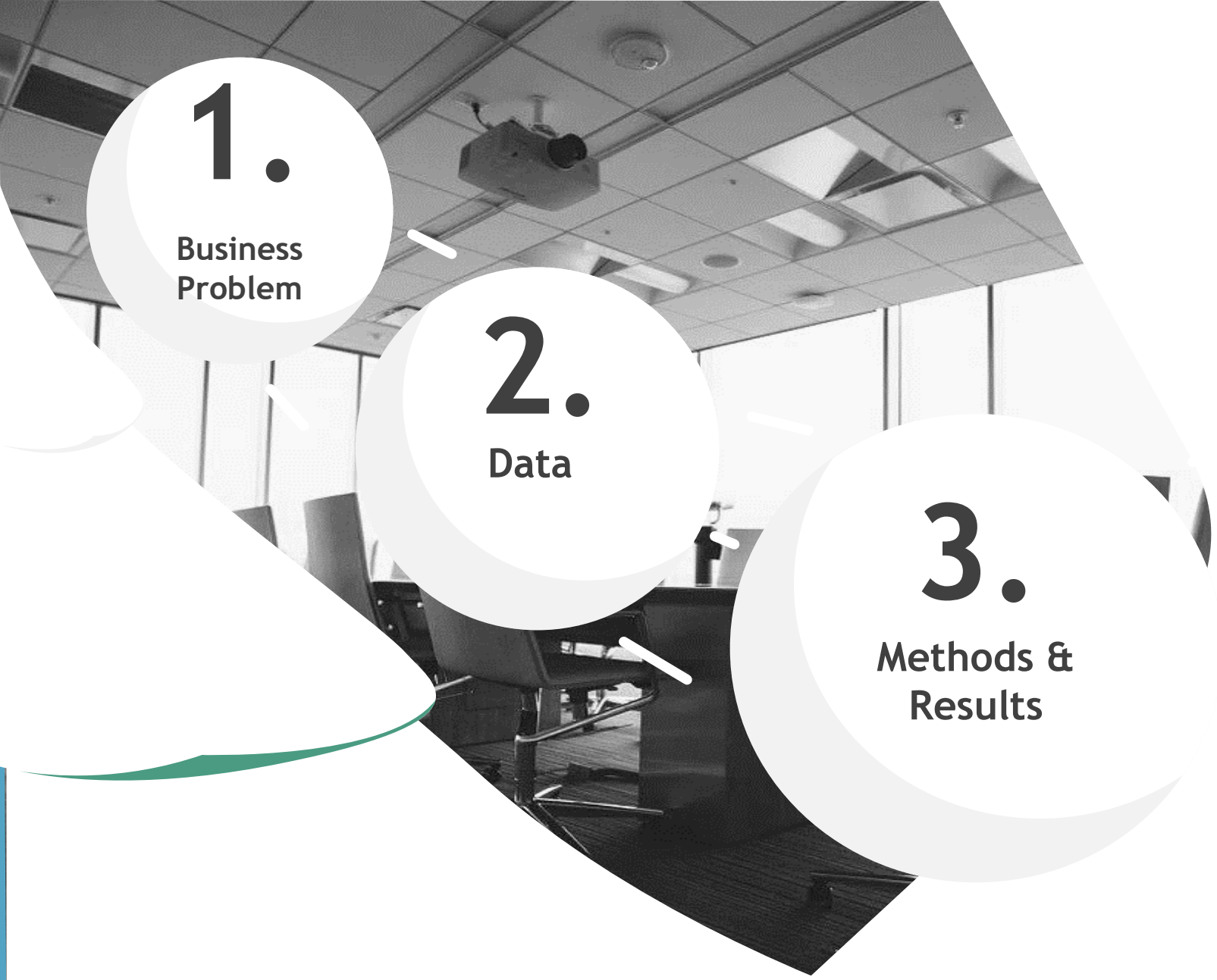
Phase 1 Project

February 2024

Summary

- Average annual revenue of $ 1.58B
- Average number of movies produced per year – 173
- The Avengers movies was both highly rated and generated high revenue
- Anthony Russo is a highly rated producer whose movies are profitable
- The revenue and profitability of movies are positively correlated
- The production budget does not have a linear relationship with the profitability of the movie
- A higher rating does not necessarily translate to a higher revenue however more movies with a higher revenue had a rating of 6 and above
- Adventure and Drama movie genres are popular
- Anthony Russo is a highly rated director and he produces successful movies. He would be a great choice for Microsoft

Agenda



1. Business Problem
2. Data
3. Methods & Results
4. Conclusuion

Introduction – Business Problem

- Microsoft have decided to create a new movie studio.
- I have been charged with exploring what types of films are currently doing the best at the box office.
- My task is to translate those findings into **actionable insights** that the head of Microsoft's new movie studio can use to help decide **what type of films to create.**

Data Characteristics

Accuracy	• The data is from reliable sources and we can therefore trust the accuracy of the data
Completeness	• The data is comprehensive for the analysis
Reliability	• The data is from reliable sources (Box Office Mojo, IMDB, Rotten Tomatoes, TheMovieDB and The Numbers)
Relevance	• The data provided is relevant for the analysis
Timeliness	• The data does not contain information after 2019, given that movie tastes change, this will not be taken into account in this nalaysis

Data Analysis - Data set limitations

Pros

- Sufficiently large data sets
- Varied information to allow various analysis

Cons

- A great number of duplicates due after merging tables
- Missing data in some of the data sets.
- Discrepancies in some of the data sets for instance finding a movie with two different tconst ids

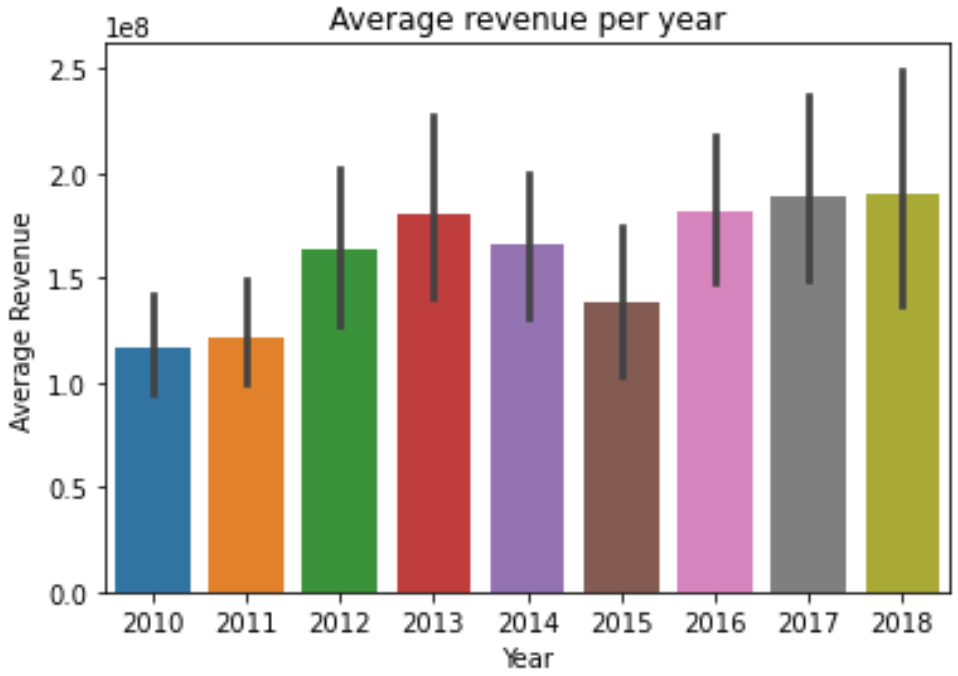
Data Methods

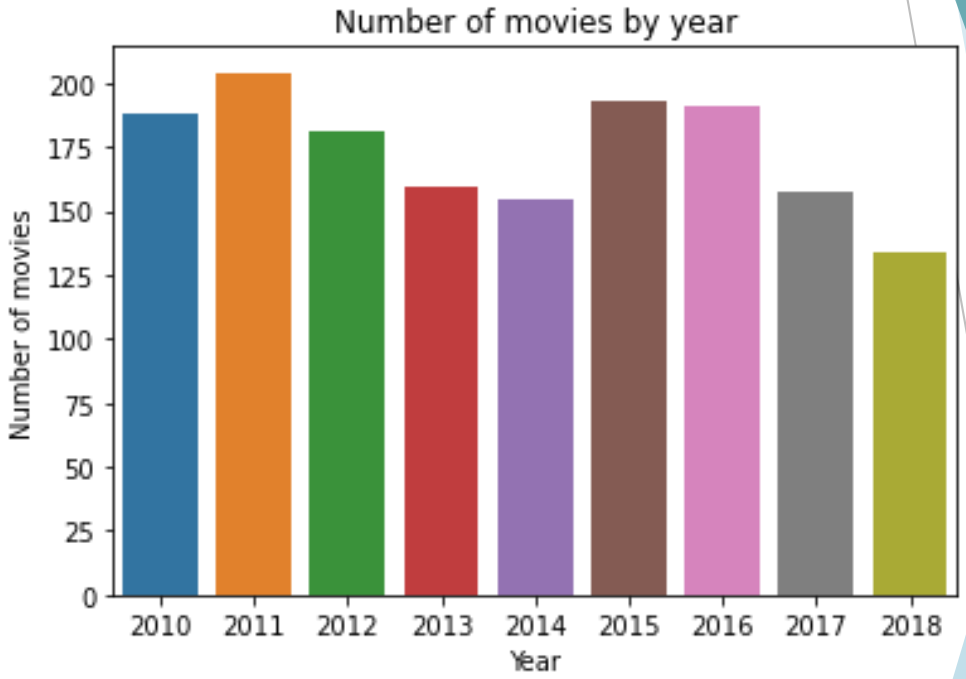
- Checking for duplicates, missing data and Identified outliers
- calculated summary statistics
- visualization data distributions
- Explored relationships between variables,

Results - Descriptive statistics

- The data set contains movies created between 2010 and 2019.
- The average length of the movies is 105 minutes. The longest movie is 192 minutes.
- The average rating of these movies is 6.4. The lowest rating is 1.6 while the highest rating is 9.2.
- The average budget for production of the movies is USD 4.66M. The lowest budget is USD 100000, while highest bud get is USD 3.79M
- The average revenue for the movies is USD 1.58B . There are movies that did not generate revenue , while the one with the highest revenue is USD 2.04B

Results – Revenue and Number of movies



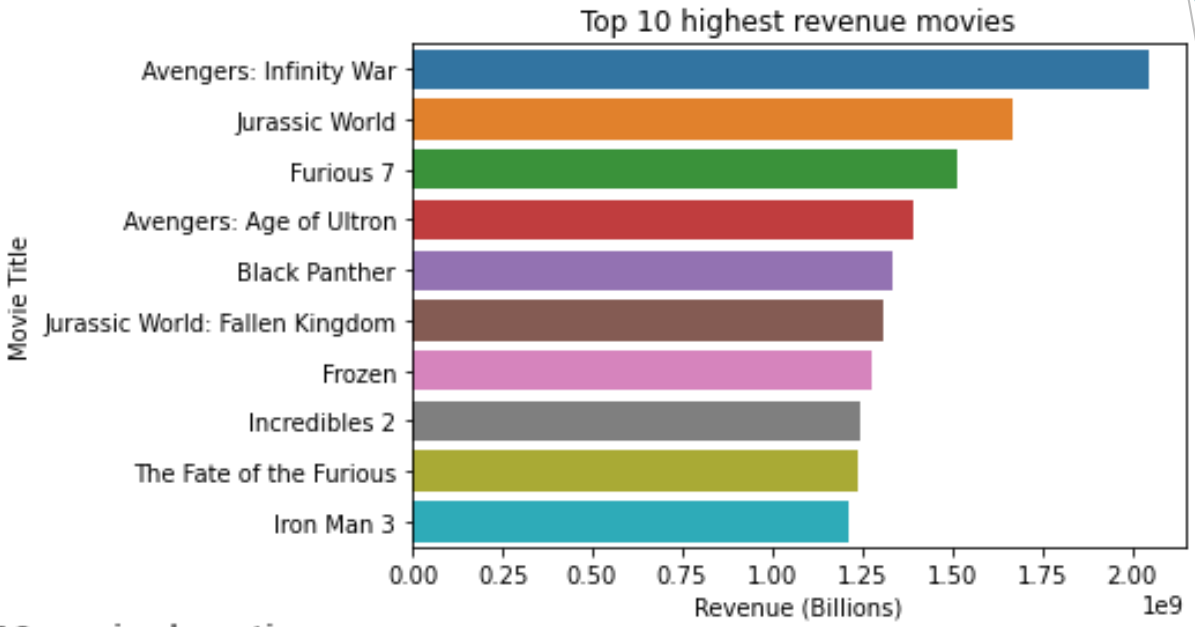


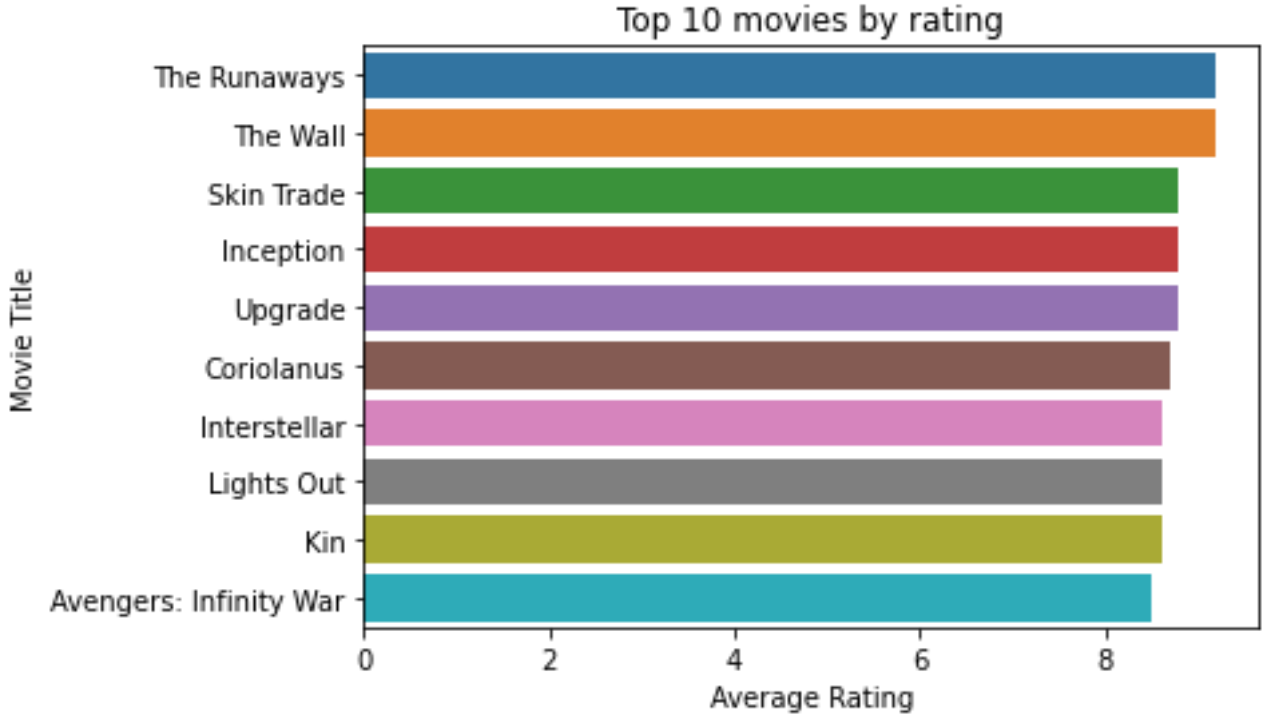
Average Annual revenue $ 1.58B

Average number of movies per year – 173

Results – Top movies

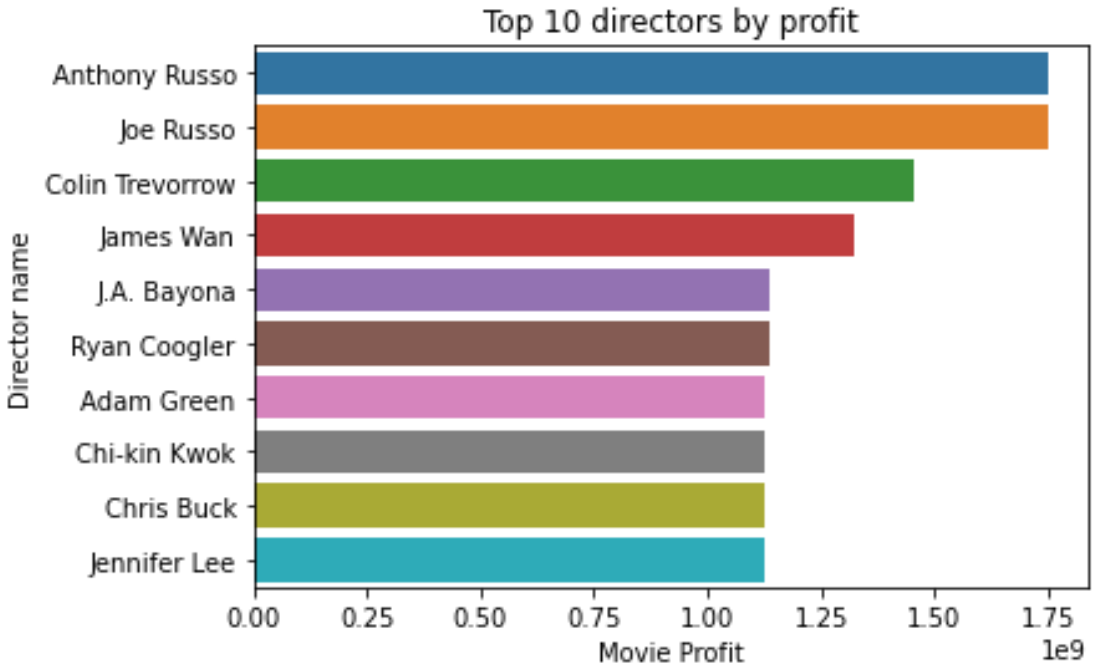
The Avengers movies was both highly rated and generated high revenue

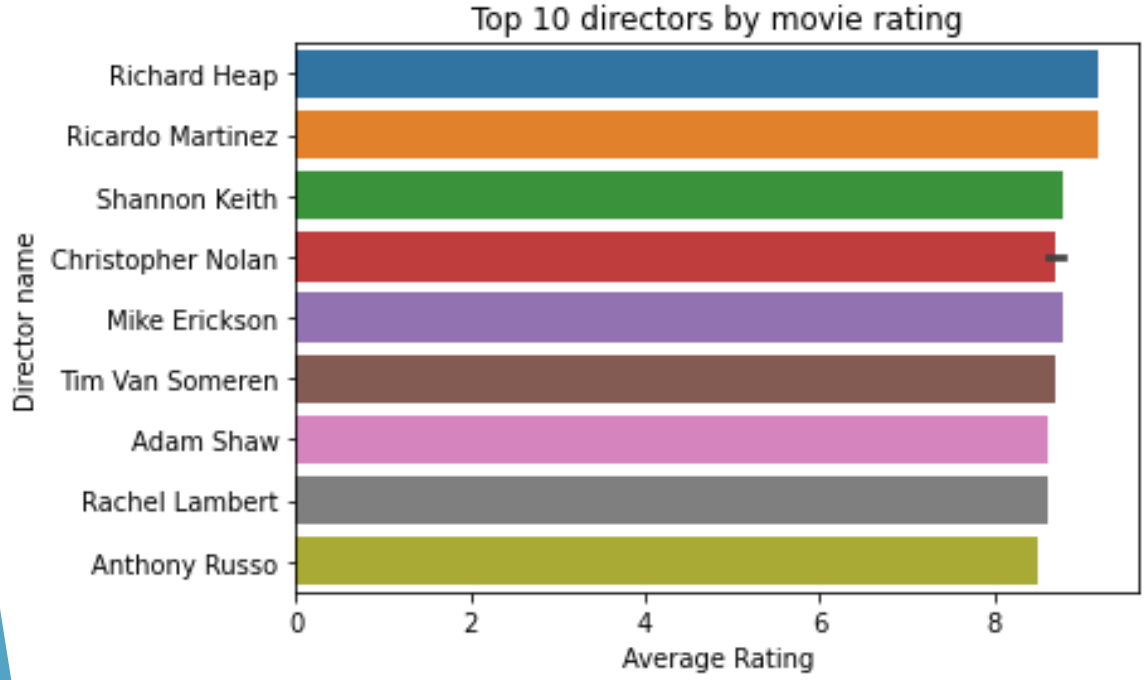




Results – Top directors

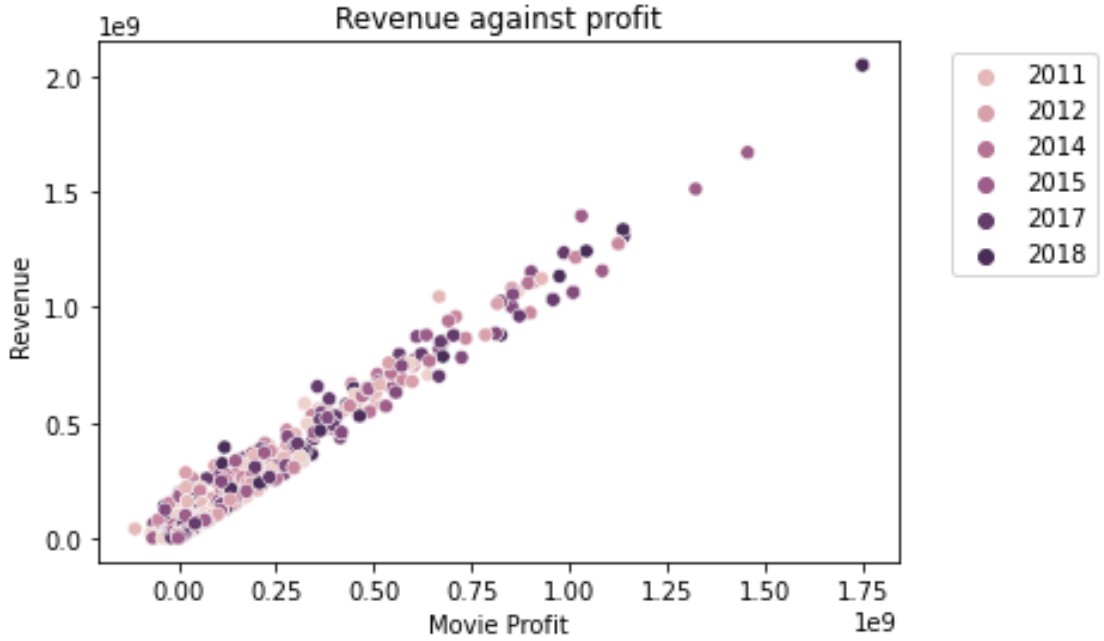
Anthony Russo is a highly rated producer whose movies are profitable

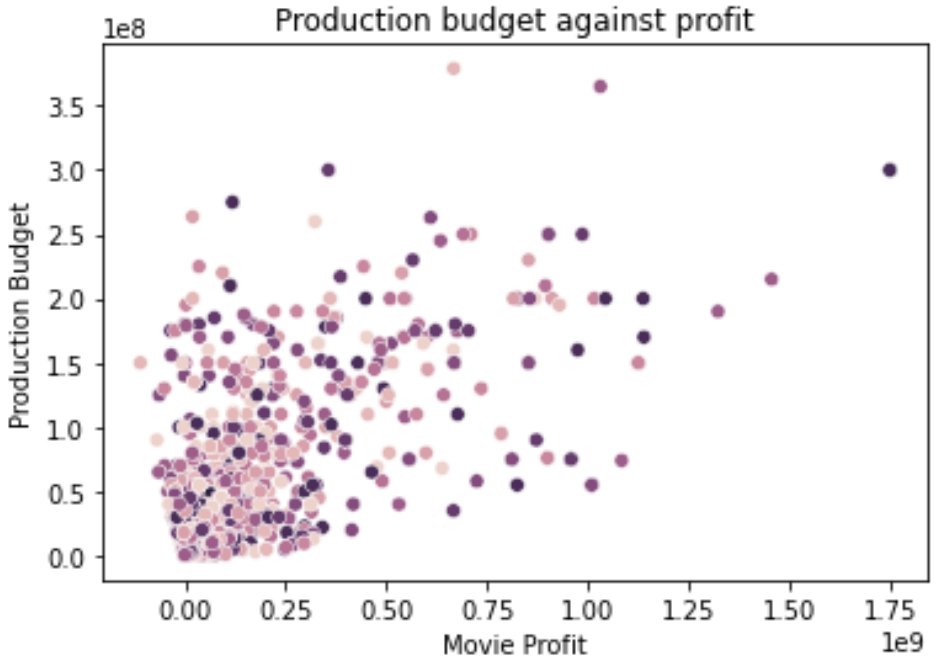




Results – Budget vs Profitability

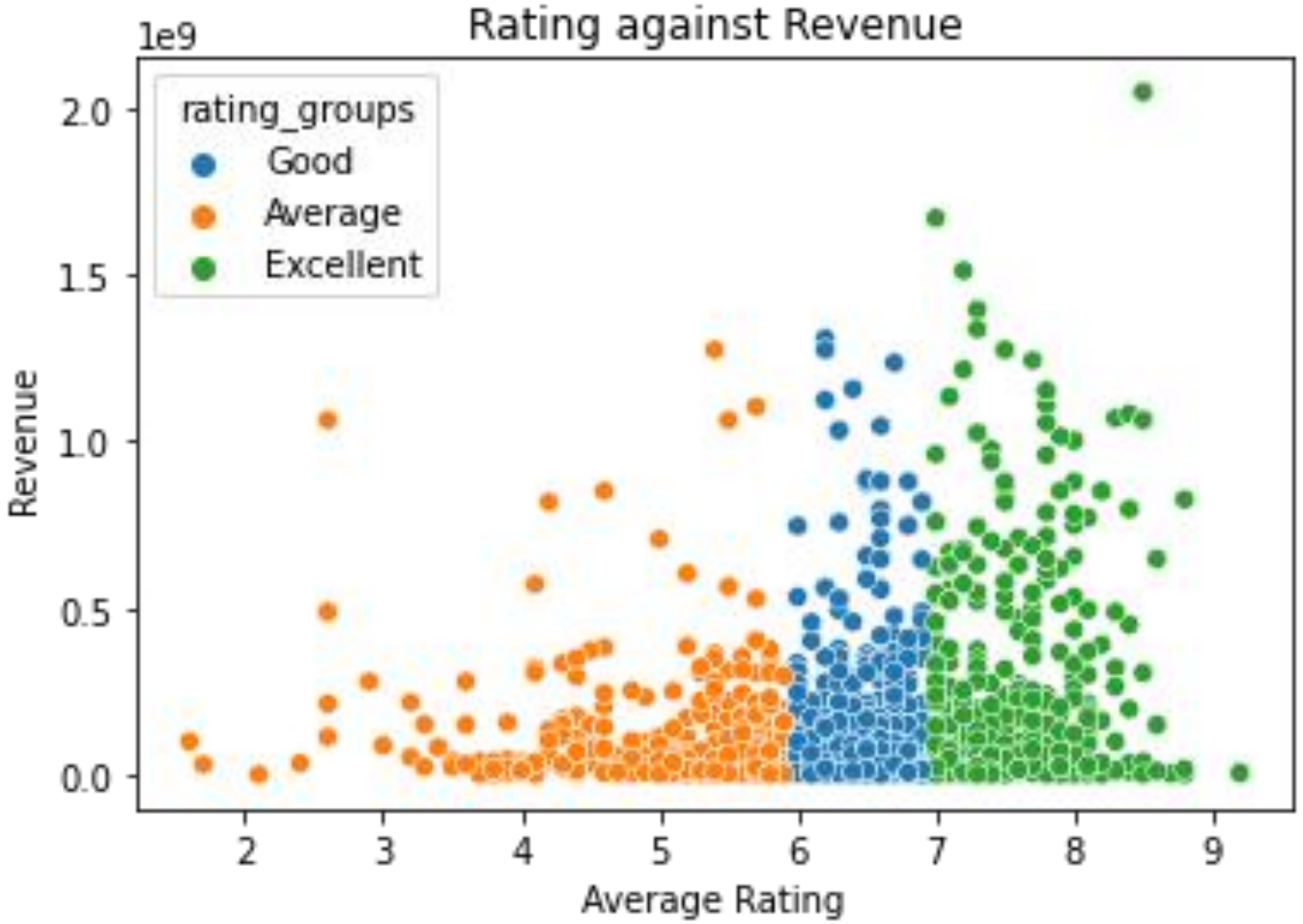
The revenue and profitability of movies are positively correlated.





The production budget does not have a linear relationship with the profitability of the movie

Results – Rating vs Revenue



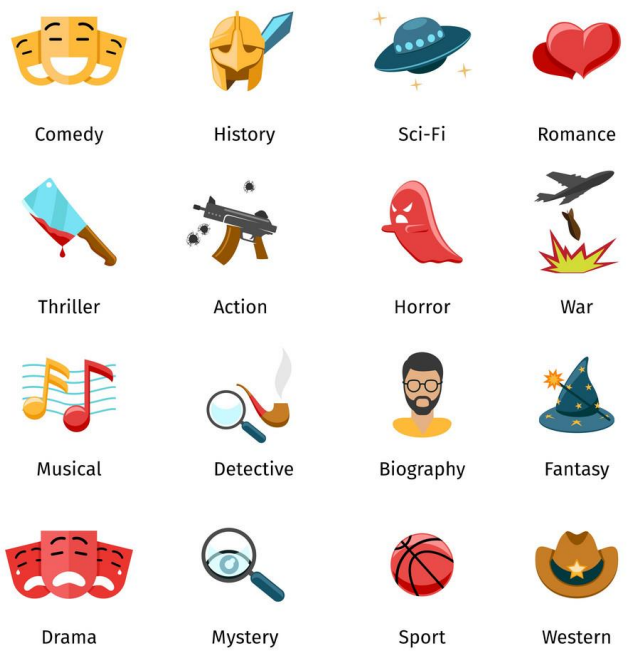
A higher rating does not necessarily translate to a higher revenue however more movies with a higher revenue had a rating of 6 and above

Rating only do not predict the success of a movie

Results - Genres

primary_title	averagerating	genres
The Runaways	9.2	Adventure
The Wall	9.2	Documentary
Skin Trade	8.8	Documentary
Inception	8.8	Action,Adventure,Sci-Fi
Upgrade	8.8	Drama
Coriolanus	8.7	Drama,History,War
Interstellar	8.6	Adventure,Drama,Sci-Fi
Lights Out	8.6	Drama
Kin	8.6	Drama,Music
Avengers: Infinity War	8.5	Action,Adventure,Sci-Fi

Adventure and Drama movie genres are popular



Conclusion

- I advise Microsoft to pick the top director Anthony Russo. Since he is highly rated and he produces successful movies in revenue.
- He would be a great option to start off the Microsoft studio and advise in matters of choices of the genres to focus on and actors to consider.
- Adventure and Drama genres are popular genres to consider
- Movie business is profitable
- With the right choice of directors, Microsoft will succeed in this venture

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