

An Exploratory Data Analysis on Movie Data

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Outline

- Overview
- The Business Problem
- Data Sources
- Results
- Recommendations

The Business Problem

- Microsoft Studios wants to make movies!
- What is the demographic of successful movies and how well do they do in the box office?



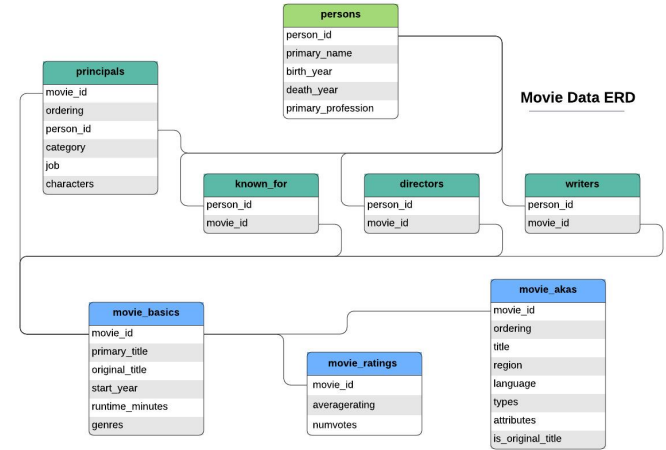
Microsoft



Data Sources

Data

- IMDB Movie Database
 - Movie Information
- The Numbers (www.the-numbers.com)
 - Budgets

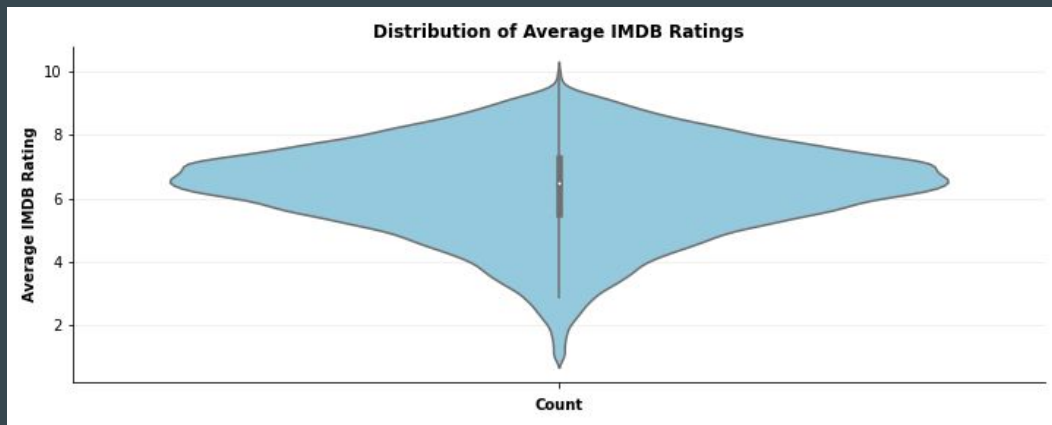
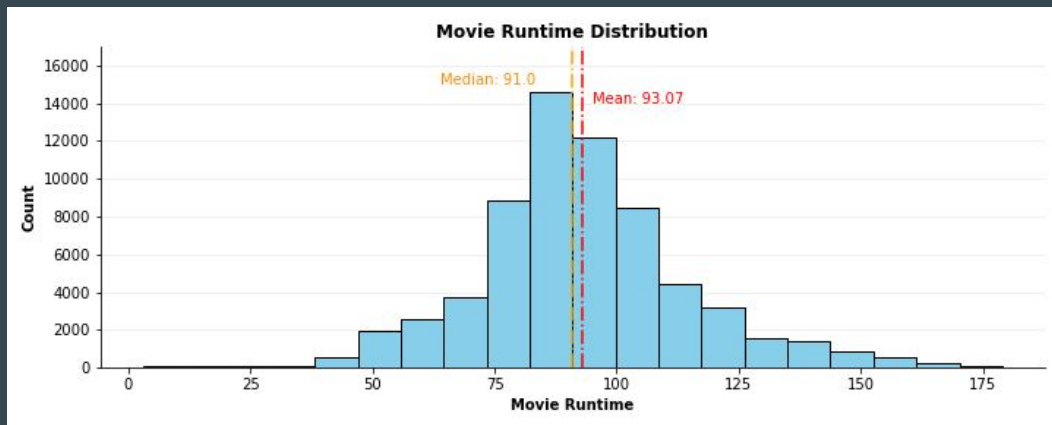


Exploring the Data

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Movie Runtime & IMDB Ratings

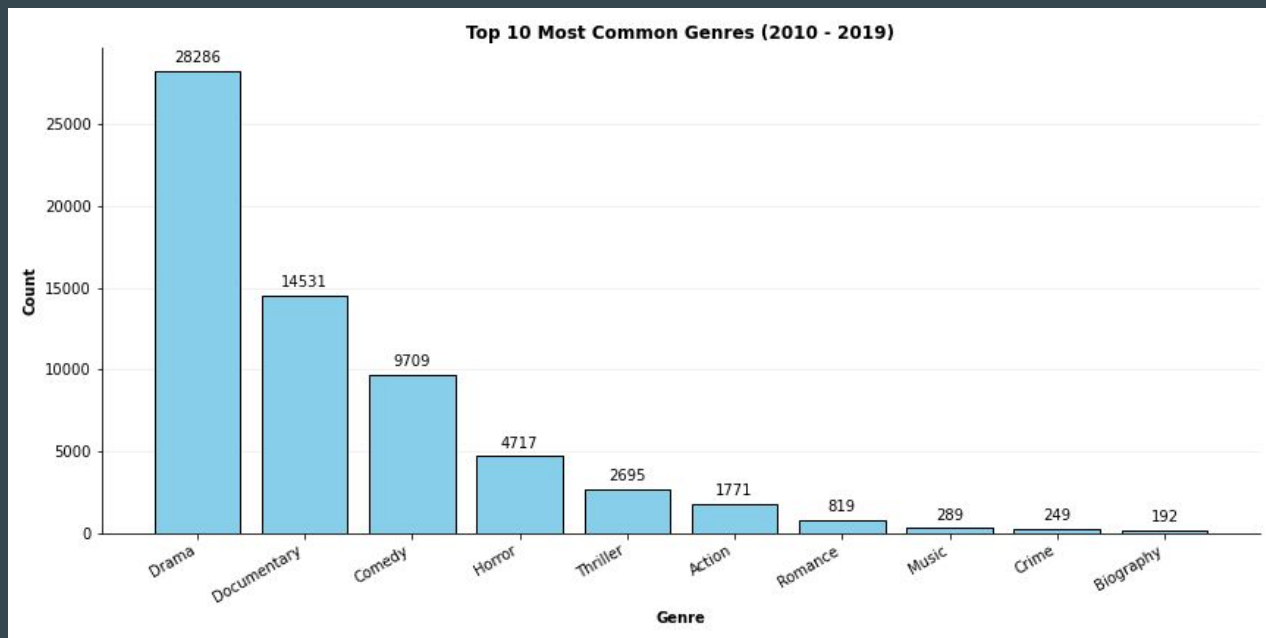
- Most movies are centered around a 90 minute runtime.
- For movies centered around the 90 minute runtime, the average rating is about 7 (on a scale of 1-10).



Top Genres (2010 - 2019)

Most frequently classified genre is the “Drama”

- But does this necessarily mean the most *popular*?



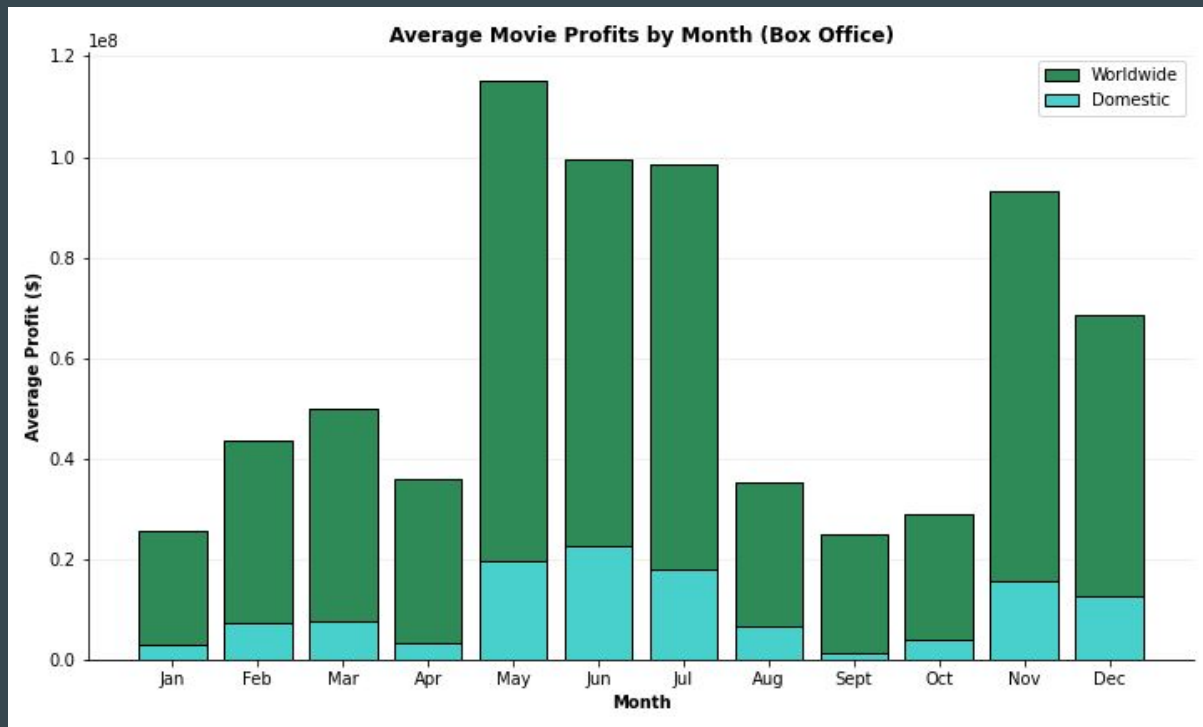
Monthly Profits

More People = More Profit

Appeal to worldwide audience

Most popular times of the year:

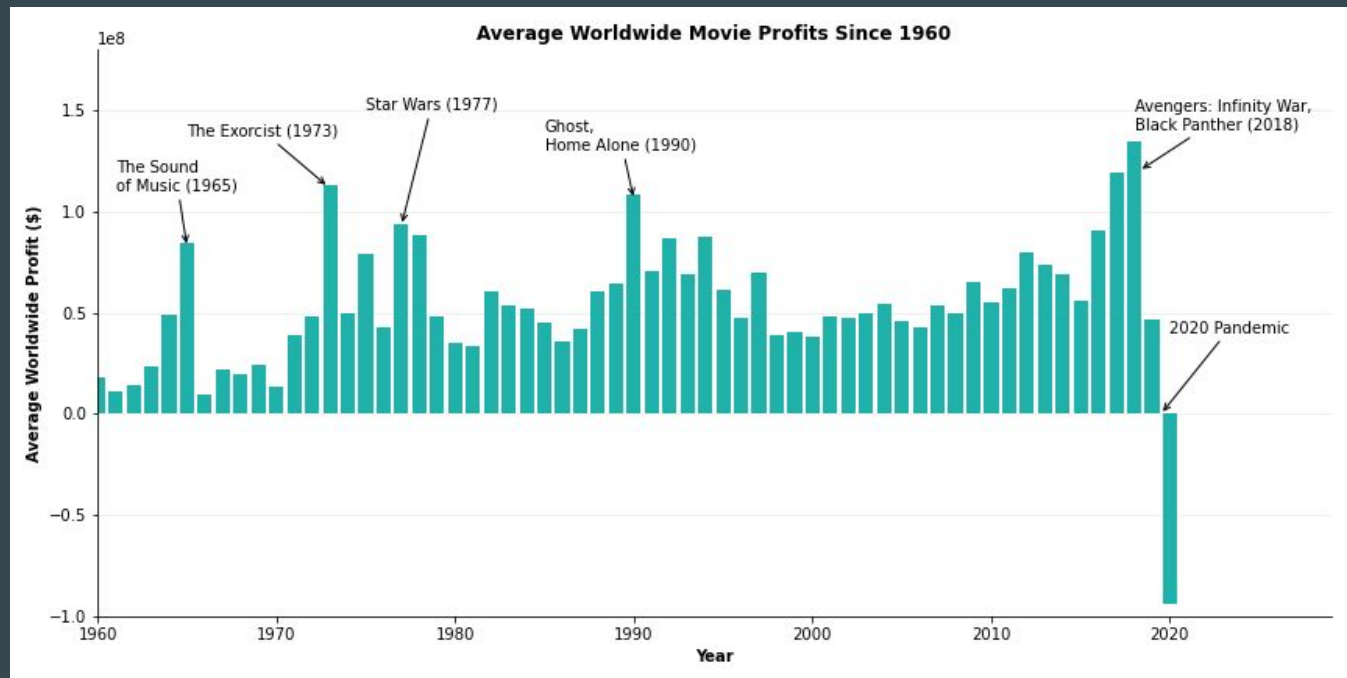
- Summer, holiday months
- More kids out of school



Yearly Profits (Since 1960)

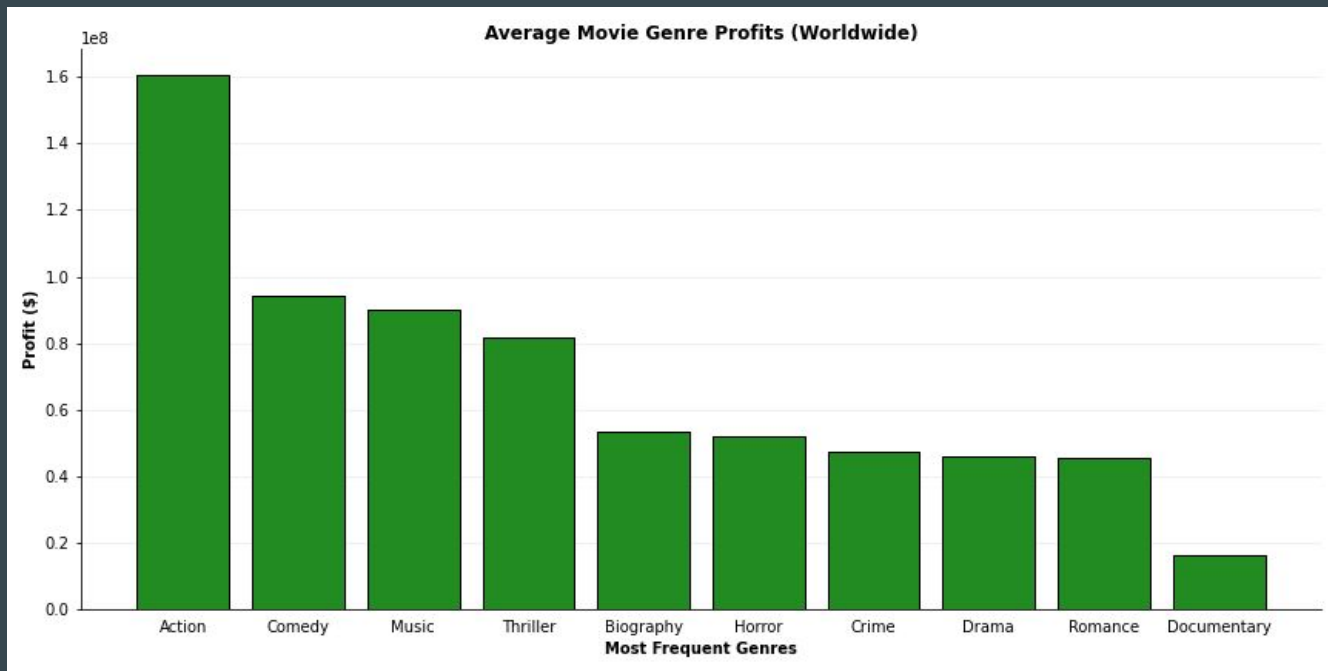
Cyclical trend over decades.

- Mid-late 2010s superhero movies
- 2020 Pandemic & lack of data available



Profits by Genre

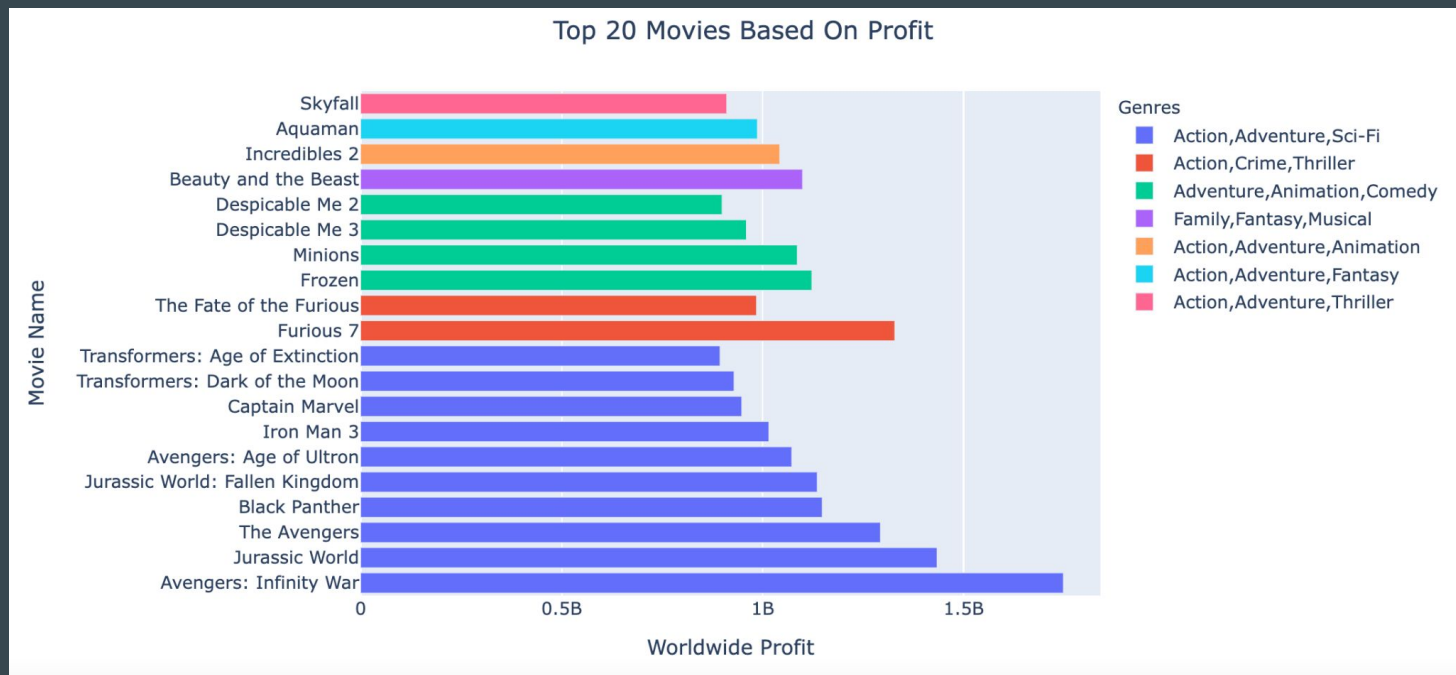
- Most profitable movies are action movies
- Compare to most frequently classified genre



Top 20 Movies

Half of the top 20 movies are classified under the action, adventure, sci-fi genre.

- Trending towards kid friendly movies



Observations & Recommendations

What type of movie? Who is watching?

- Approximately 90 minute runtime
- Focus on action, adventure, and sci-fi, kids demo
- Market a movie worldwide

When should the movie be released?

- Summer or holiday seasons



Source:

<https://pbblogassets.s3.amazonaws.com/uploads/2015/10/Film-Production-Australia.jpg>

Next Steps

Data Pre & Post 2020

Adjust for Inflation

Additional data

- Monitor and collect movie theater box office data for performance after 2020
- Adjust the data for further analysis relative to purchasing power.
- Explain yearly cyclical pattern

Questions?

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