

MORINGA SCHOOL DATA SCIENCE

PHASE 1 PROJECT

Summary

We've analyzed profitability, budget, runtime, genre and popularity of moves in the movie industry.

- The industry is profitable
- Best runtime is 90 minutes
- Most popular genre is drama
- Runtime doesn't affect the rating of a movie

Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions

Business Problem

Microsoft wants to dive into the movie production industry.

1. Is the industry profitable?
2. What are the most popular genres?
3. What effects does runtime have on the ratings of the movies?
4. What are the actionable insights?

Data

DATA SOURCE

- IMDB

INDEPENDENT ENTRIES

1. ***Genre***
2. ***Domestic gross profit***
3. ***Runtime minutes***
4. ***Production budget***

DEPENDENT ENTRIES

1. ***Realized Profit***
2. ***ROI***

Methods

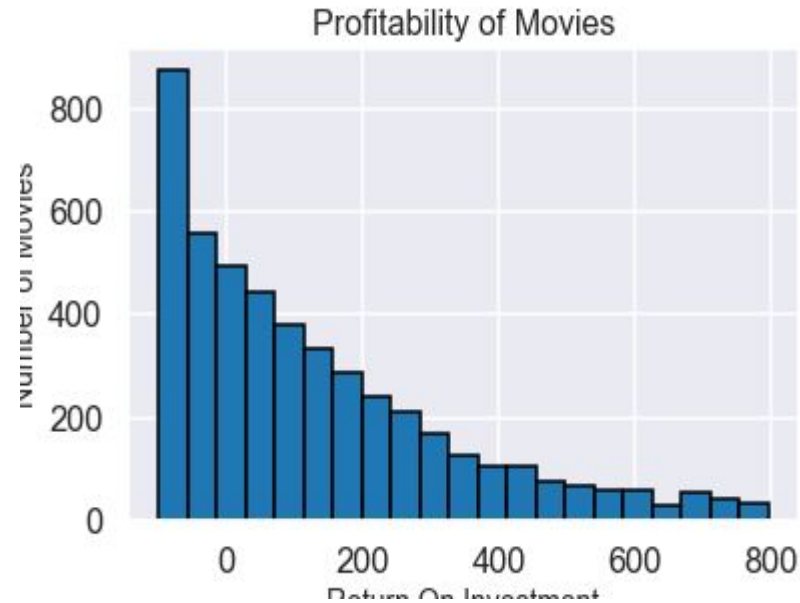
I dropped unnecessary columns, changed the data types.

Later on, I added new columns and joined different datasets.

Analyzed more than 20,000 movies

Results

Profitability of the movie production industry

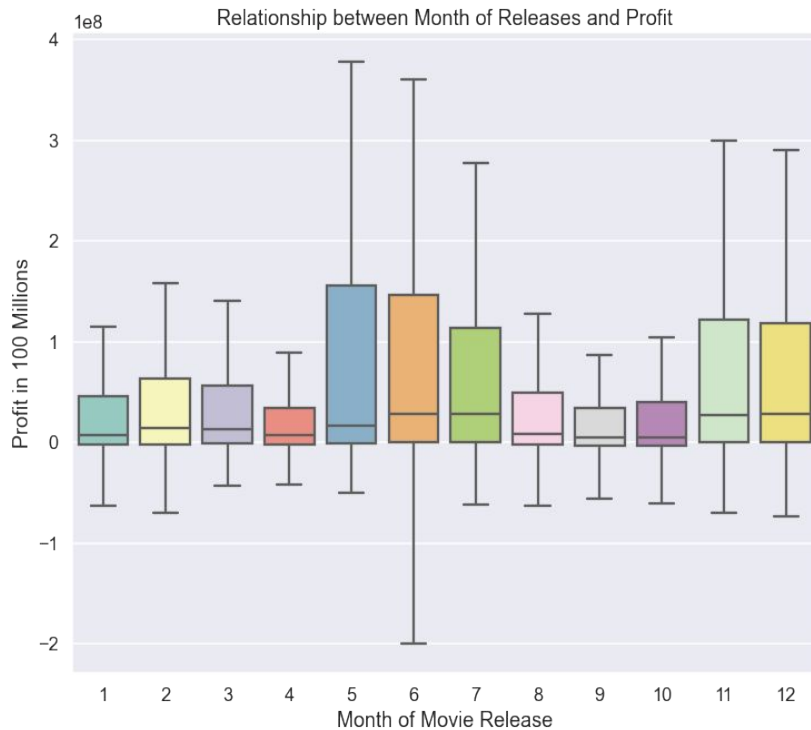


Is it worth it to venture into this industry?

YES, IT'S!

A big portion of movies produced end up making profits.

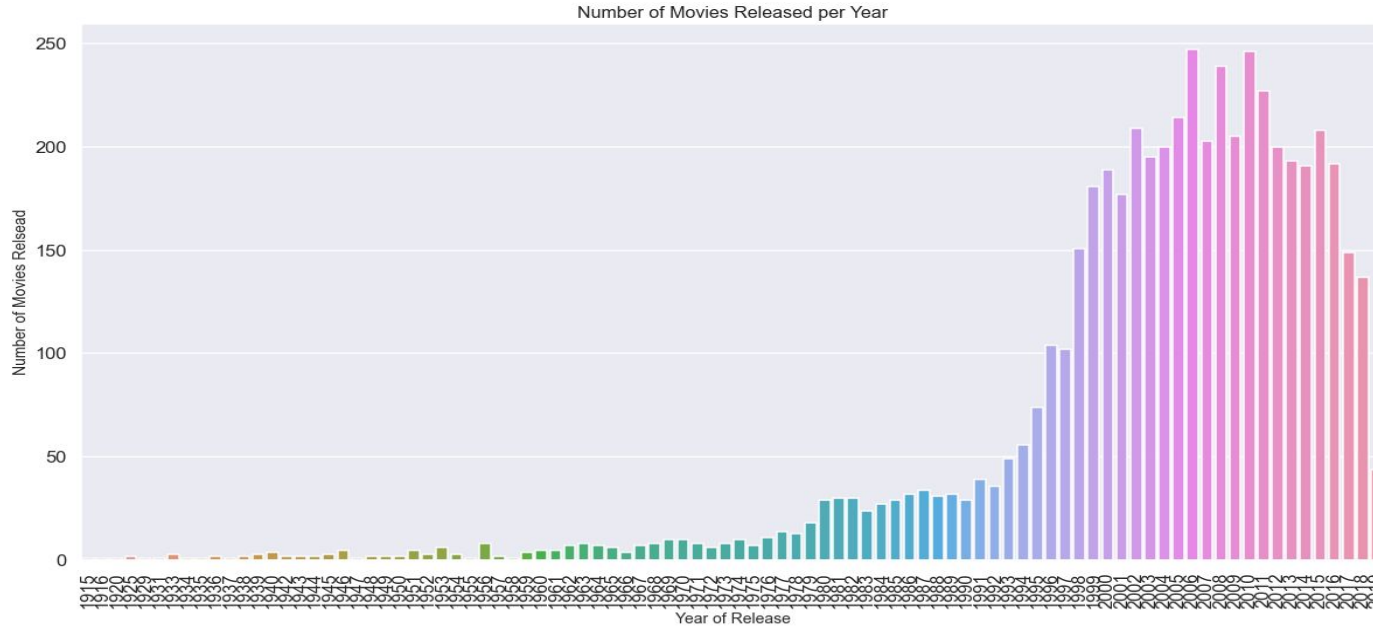
The month with highest number of released movies



December has the highest median of the released movies in a year.

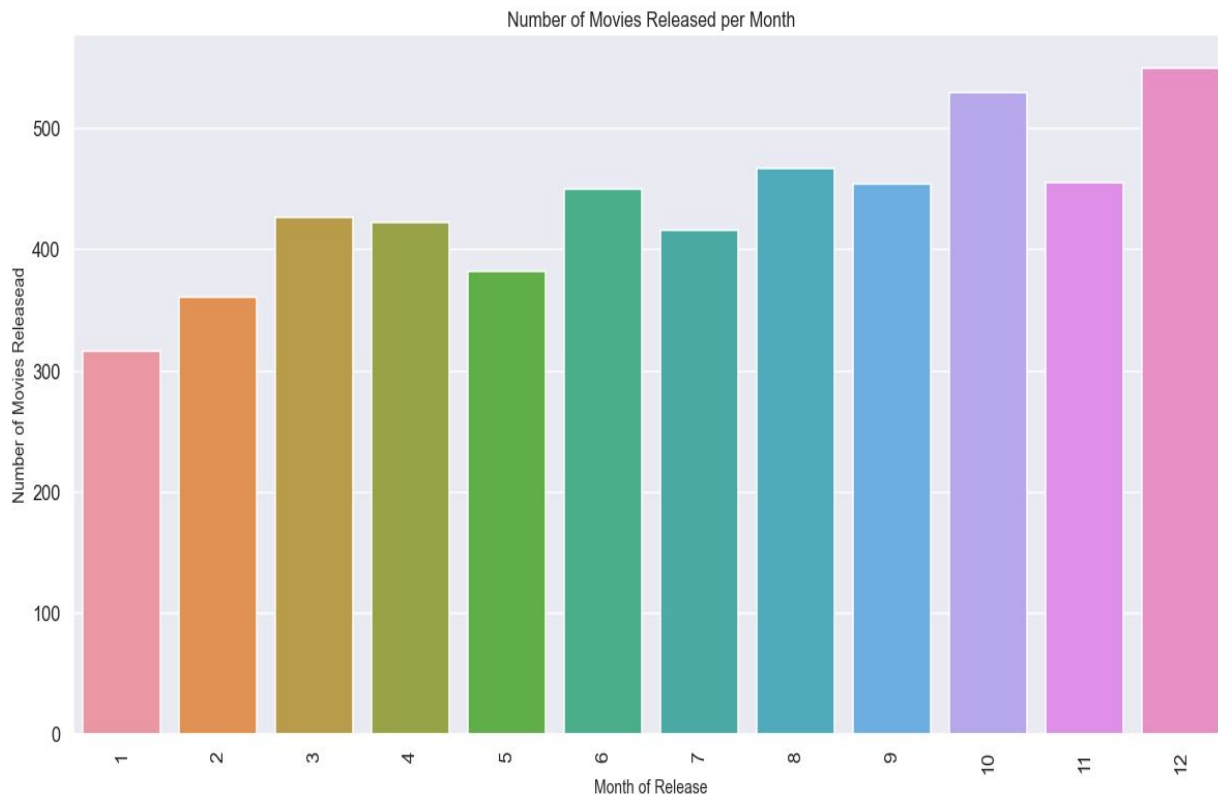
DECEMBER

Year with most produced movies



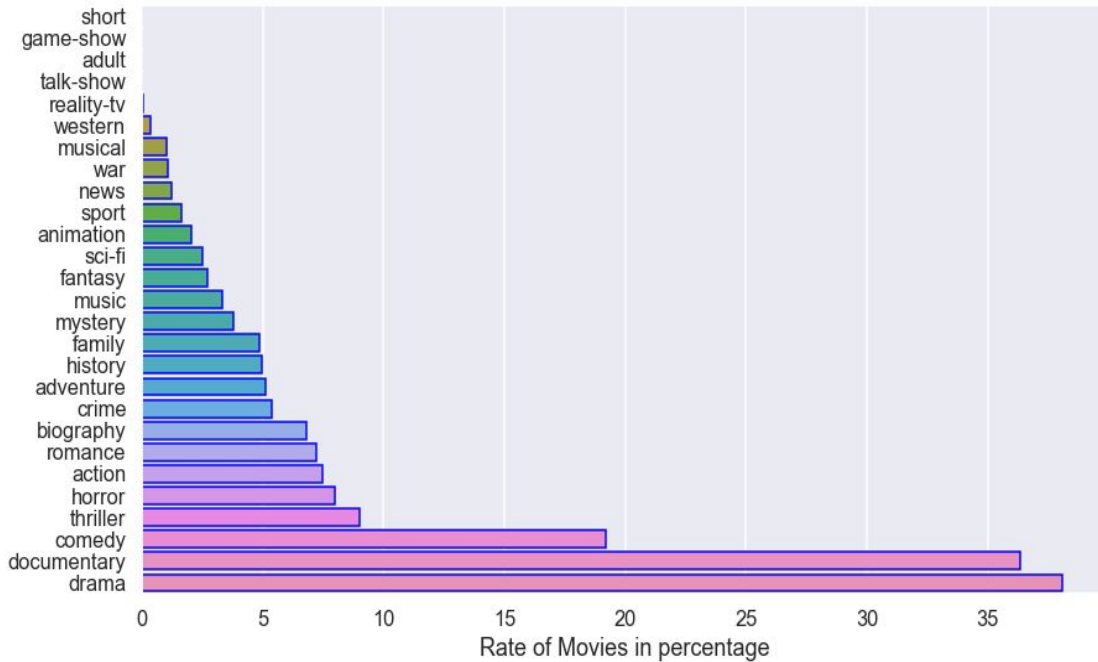
2006 saw the highest number of movies released

Month that Movie producers are the most active



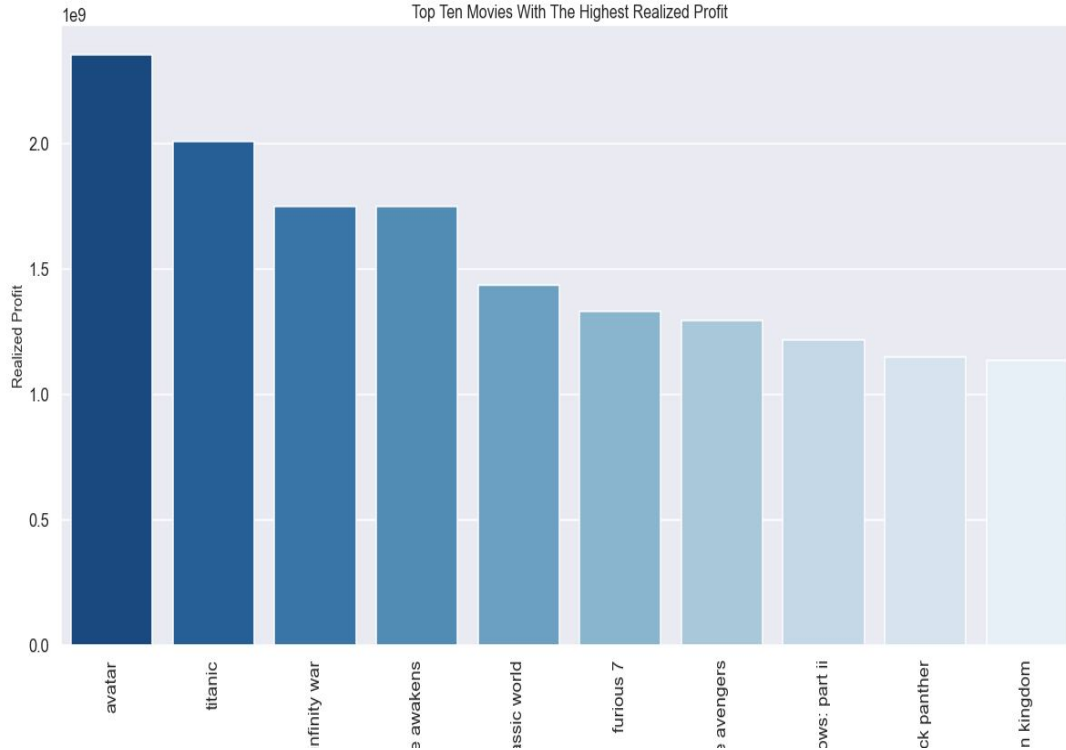
**DECEMBER IS THE
BUSIEST MONTH**

WHICH GENRE IS THE MOST POPULAR



***Drama** movies are the most watched movies but it's closely followed by **Documentaries**. Both have a percentage of more than 35%*

Top ten most profitable movie ever produced

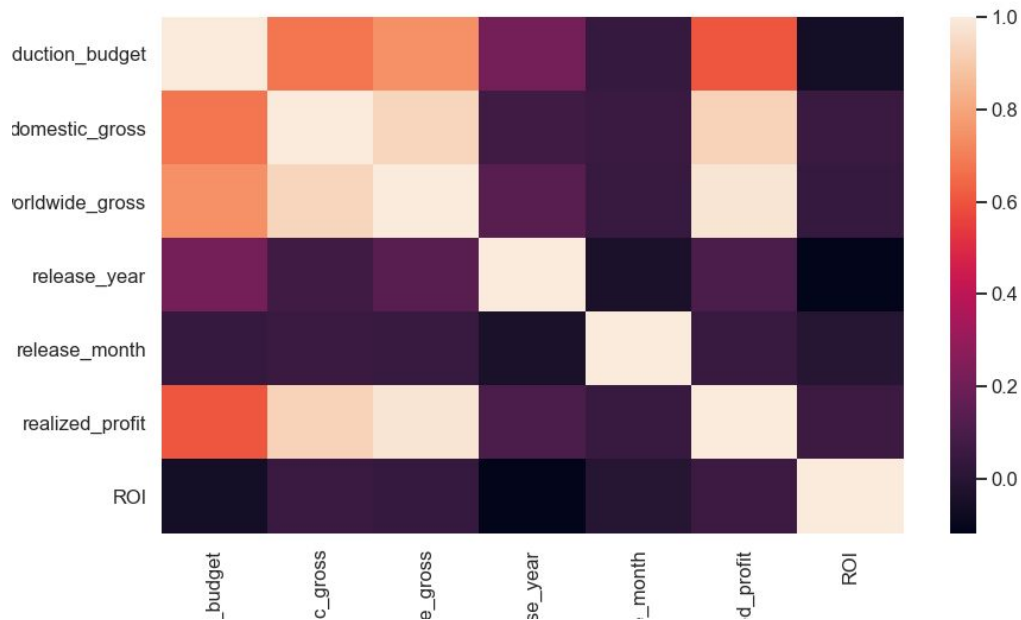


Avatar is the most profitable movie produced

Titanic follows closely

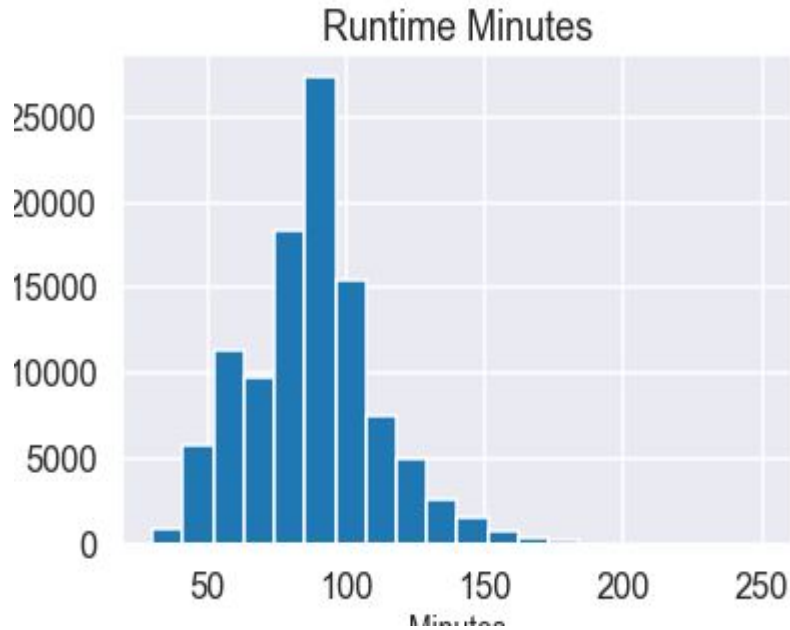
Both produced revenue of more than \$2 billion

Correlation between production and realized profit



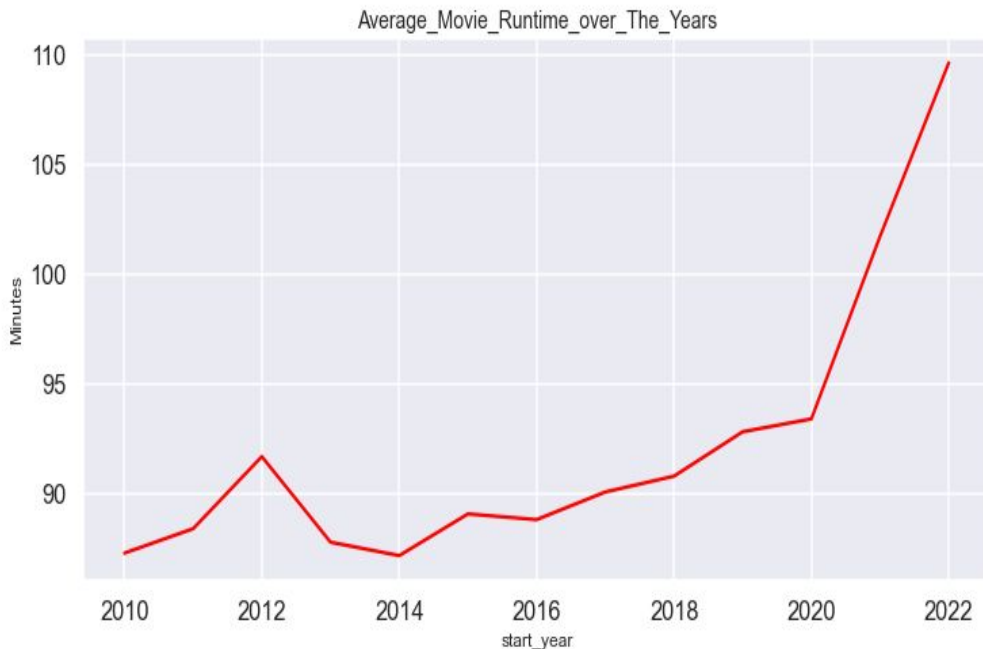
There's a **positive correlation** between the amount of money used to produce a movie and the profits realized.

How's runtime distributed across the movie production industry



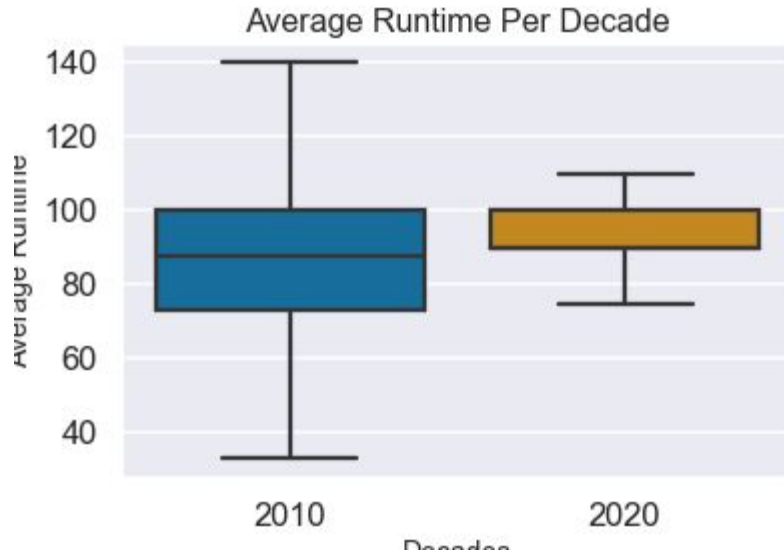
Most movies' runtime is 90 to 100 minutes

Has the runtime minutes changed over the years?



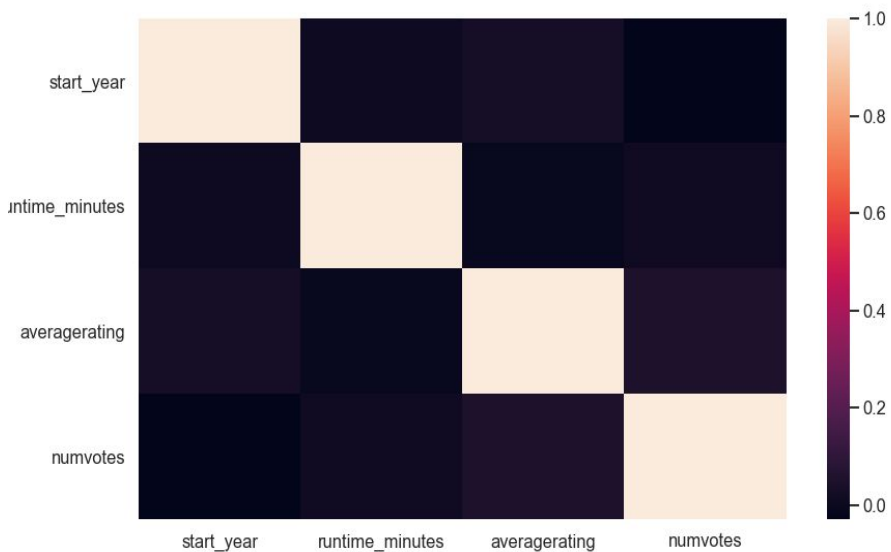
There's no significant change in the amount of runtime. It mostly ranges between 90 and 100 minutes

Median runtime for each decade



In the past decade, the median runtime was around 90 minutes, it hasn't changed much in this decade

Correlation between runtime and average rating



There's a **zero or no correlation** between runtime and average rating. The two are independent of each other.

Conclusions

- 1. The movie production industry is a profitable industry. Everything held constant, Microsoft is likely to generate good profits if it goes ahead with its investment plan.*
- 2. The most popular genres are drama and documentary. Microsoft should focus on these two.*
- 3. Make movies that have high budgets in order to maximized on profits. However these have low ROIs*
- 4. Movie runtime doesn't dictate the movie's rating. Nevertheless, most movies have an average runtime of 90 minutes.*

Thank You!

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