



Microsoft Movie Start-up Analysis

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Summary



An analysis of movies that are currently doing the best at the box office reveals which movies Microsoft new studio should produce by answering the following 3 key questions:

1. Which **movie genres** are most popular with viewers?
2. What are the **runtimes** of the most popular movie genres?
3. Which **month of release** of movies yields highest ratings?

Outline



1. Business Problem
2. Data
3. Methods
4. Results
5. Conclusions
6. Next Steps

Business Problem

- An investigation of the types of films currently doing the best at the box office;
- And translating the findings into insights on what kind of movies Microsoft's new studio should produce.



Data

- ❖ Data used: IMDB Basics data; IMDB Ratings data and TMDb movies data.
- ❖ IMDB Basics has data on genres.
- ❖ IMDB Ratings has data on movie ratings and number of votes
- ❖ TMDb database has data on movie release dates, ratings and number of votes.



Methods



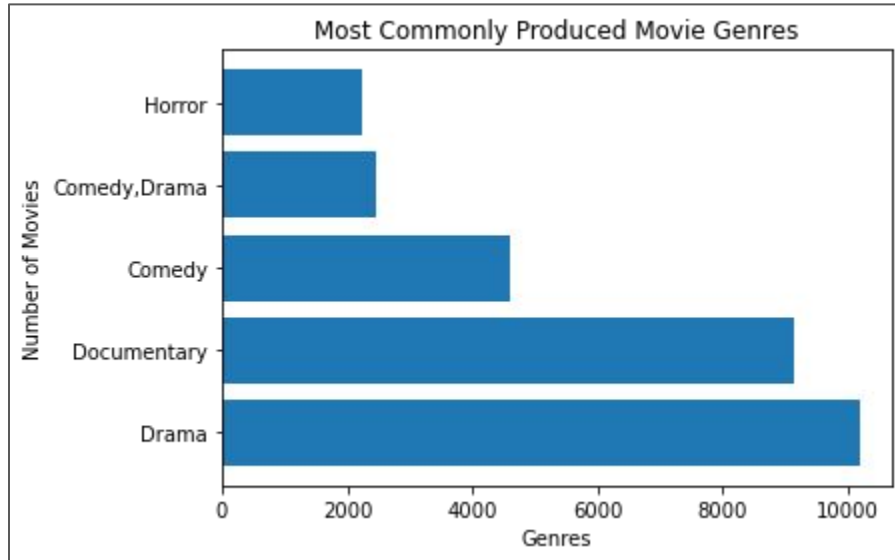
Data preparation includes:

- ❖ Dropping unnecessary columns
- ❖ Merging dataframes
- ❖ Checking for duplicated data
- ❖ Checking for and dealing with missing values

Data modeling methods include:

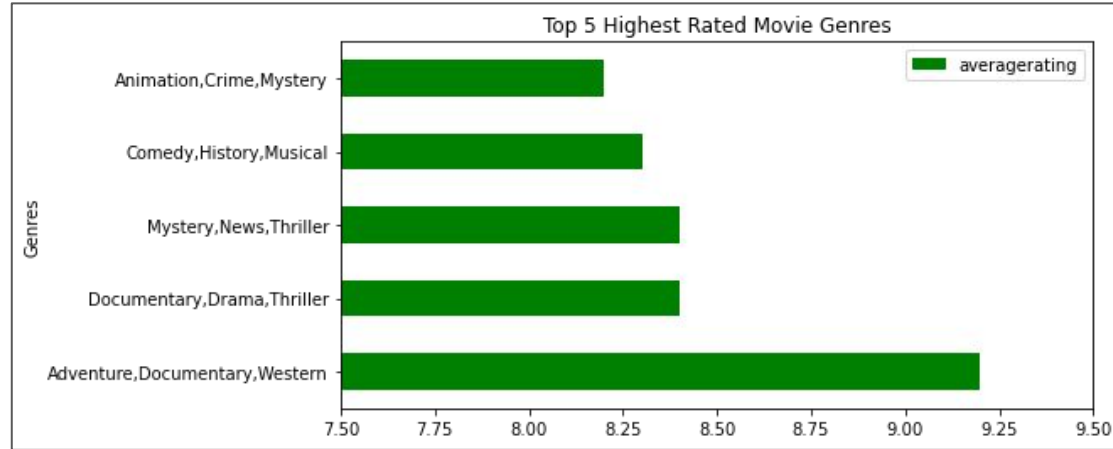
- ❖ Filtering the data by certain parameters
- ❖ Groupby with aggregation
- ❖ Changing datatype
- ❖ Creating new feature (column) to the dataframe
- ❖ Visualizations

Results



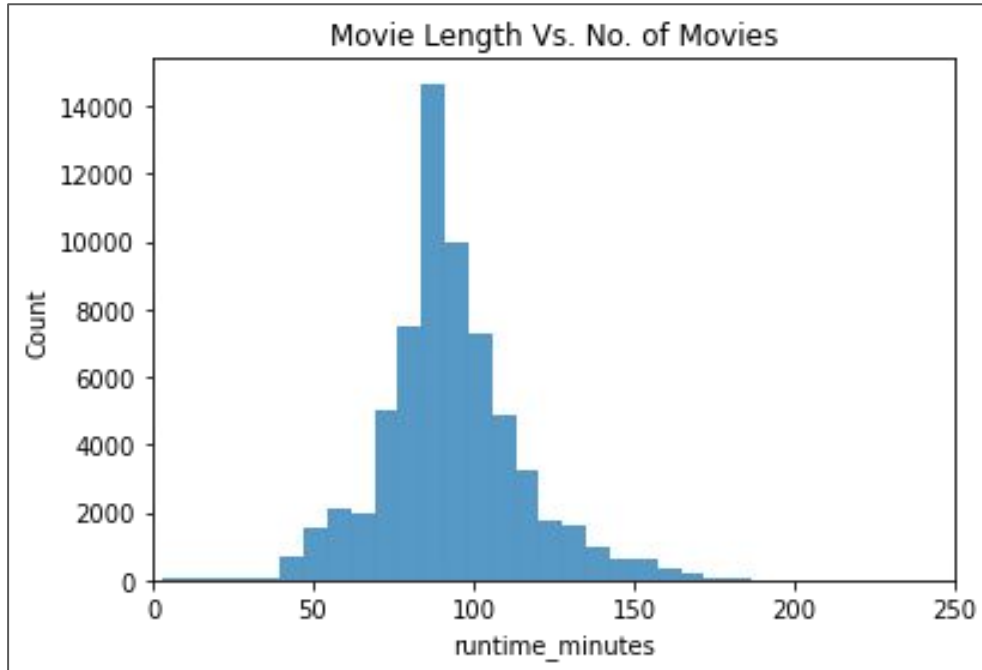
Dramas are the most commonly produced movie genre without considering ratings..

Results



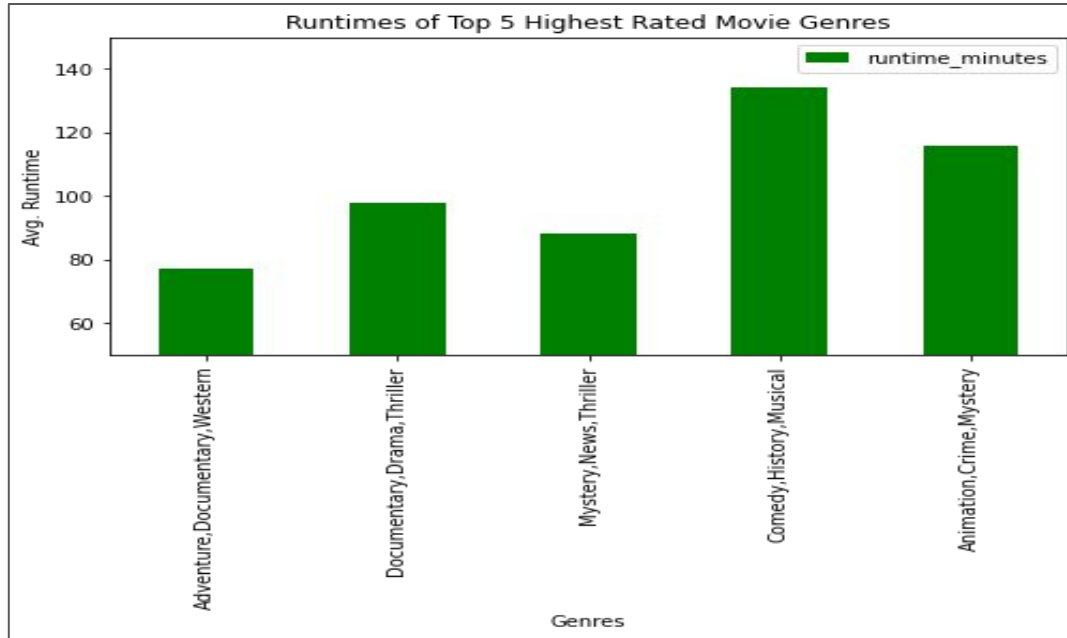
- **Top 5 highest rated genres** of movies differ from the top 5 most commonly produced genres.
- **Adventure, Documentary & Western** is the most popular genre combination.

Results



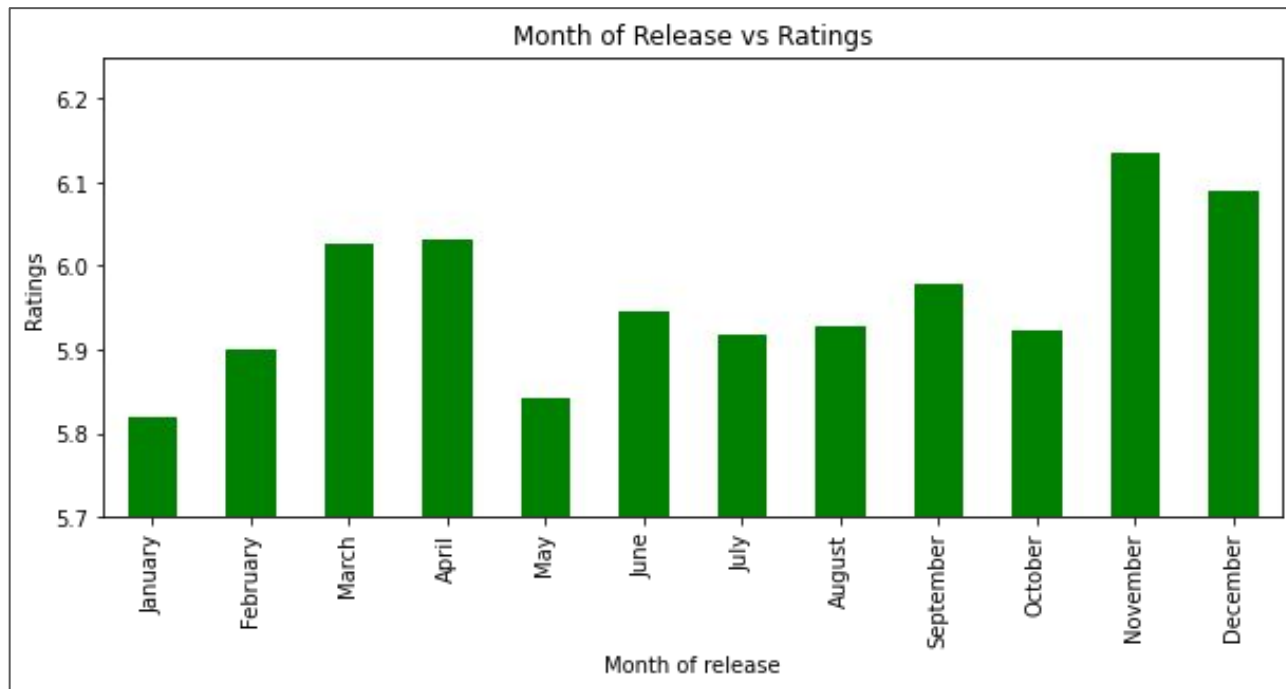
➤ **90 minutes** is the most common movie length.

Results



77 to 134 minutes is the range of length for the top 5 highest rated movie genres

Results



November and December are the best months to release a movie

Conclusions



An analysis of movies that are currently doing the best at the box office reveals which movies Microsoft new studio should produce:

1. **Genres:** Pursue production of movies of these genres:
Adventure,Documentary,Western; Documentary,Drama,Thriller;
Mystery,News,Thriller; Comedy,History,Musical ; Animation,Crime,Mystery.
2. **Runtimes:** Produce movies with these approximate runtimes: 77 minutes
(Adventure,Documentary,Western); 98 minutes (Documentary,Drama,Thriller); 88
minutes (Mystery,News,Thriller); 134 minutes (Comedy,History,Musical); 116
minutes (Animation,Crime,Mystery)
3. **Month of release:** Release majority of the movies produced in November and
December. Avoid releasing films in January and May as they tend to have lower
ratings.

Next Steps



Further analysis is recommended in the following areas for additional insights:

- **Gross earnings:** Analysis of box office gross earnings in addition to popularity (ratings), to further refine the kinds of movies to pursue.
- **Production budget:** An examination of production budgets per recommended movie genre, to give the client a feel of the production capital needed.
- **Streaming services:** An investigation into popularity and earnings of films produced for streaming services such as Netflix, as opposed to box office release only, to guide the client on best approaches