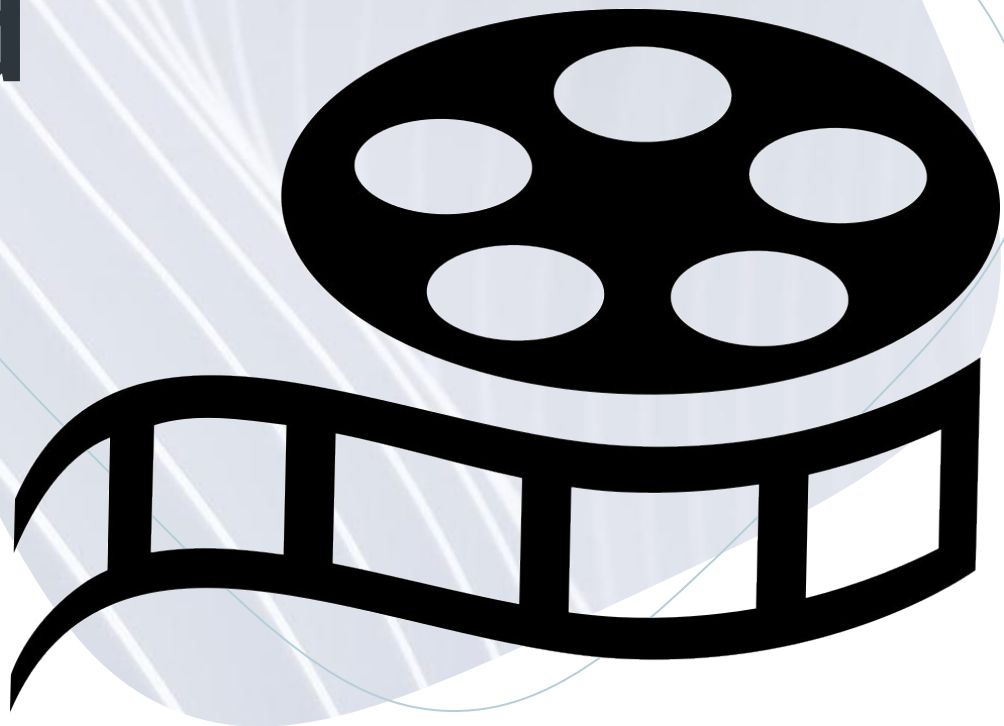# Analyzing Movie Popularity and Profitability

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Introduction

DATA

This presentation will report findings from an analysis of datasets from IMBD and Rotten Tomatoes.

IMBD is an online film/television database.

Rotten Tomatoes is a film/television review aggregation website.

PURPOSE

The analysis aims to determine what types of movies are most popular and profitable in order to make recommendations to Microsoft for future film creation.

Process

DATA CLEANING

- Reading the data
- Eliminating rows/columns with many missing values
- Removing irrelevant data
- Formatting into readable data frames

ANALYSIS

- Interpreting summary statistics and visualizations of the data

ACTION STEPS

- Based on the analysis, what steps should Microsoft take in order to create successful movies?
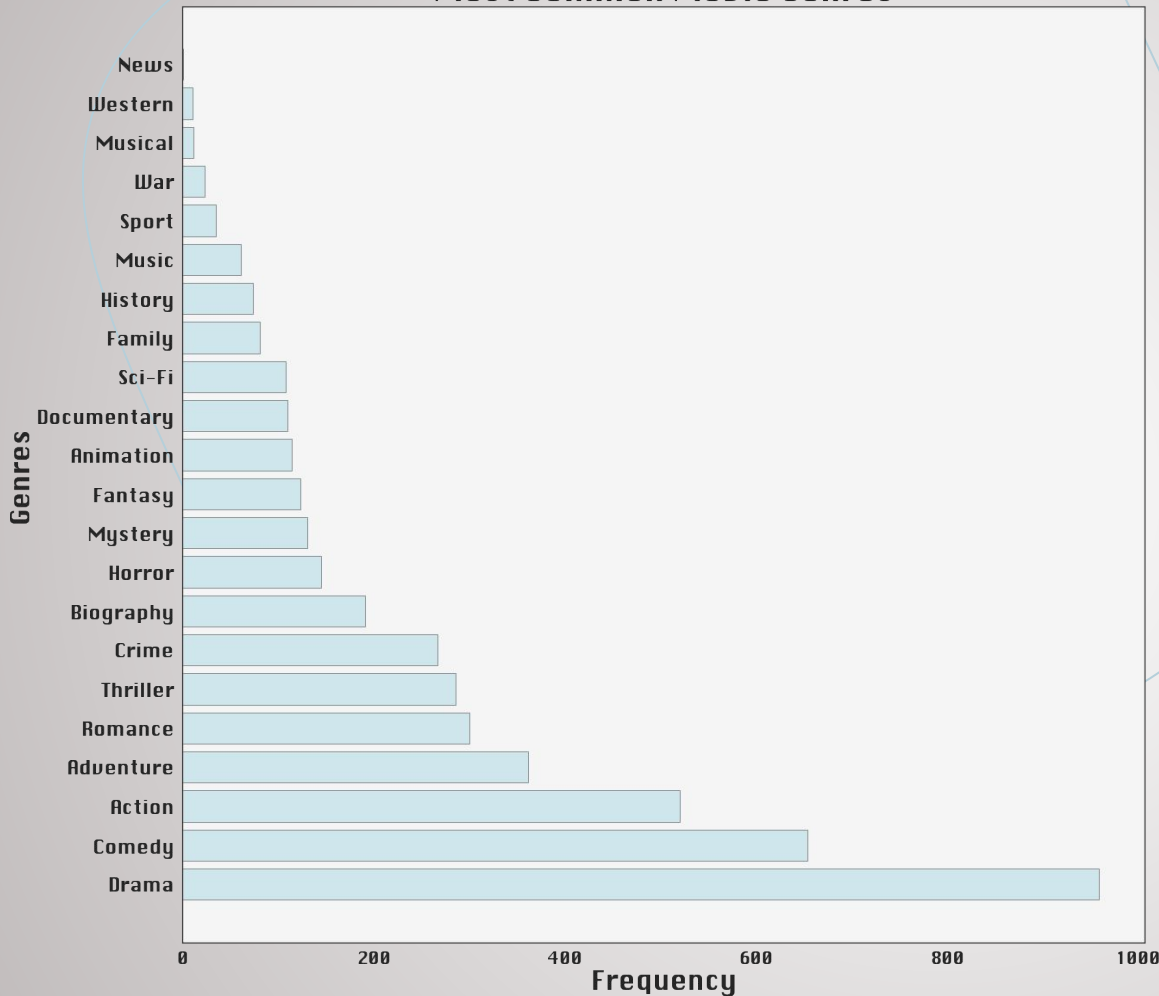
Analysis

1

What movie genres are the most popular?

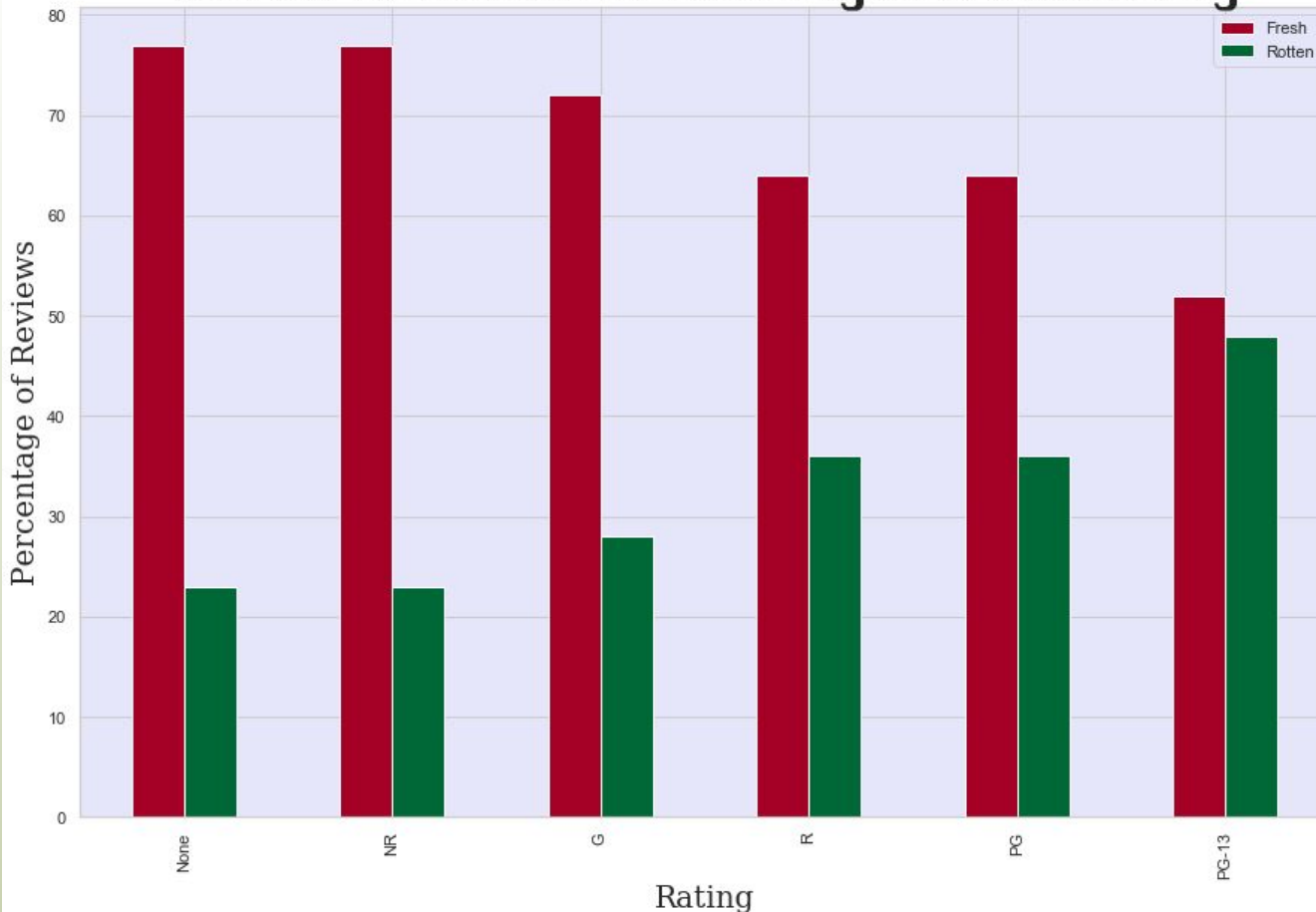# Most Common Movie Genres

Takeaways:

Drama, comedy, action and adventure are the most common genres in the movie industry.

It's expected that popular movie genres will be more prevalent in the movie industry, but before making genre recommendations, we'll have to consider other factors.

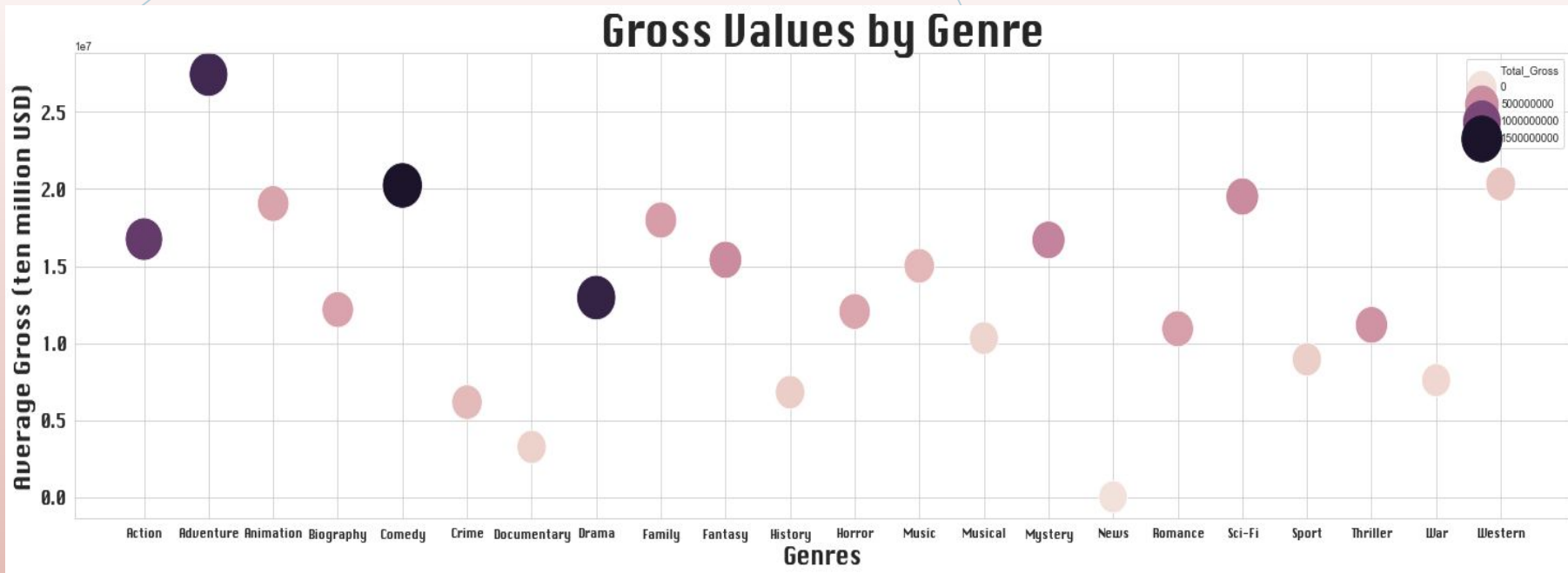## Rotten Tomatoes Reviews by Content Rating

Takeaways:

Unrated and G-rated movies recieve the highest percentage of 'fresh' reviews on RT.

Microsoft should create movies that will appeal to a wide audience with either **no rating** or a **G-rating**.
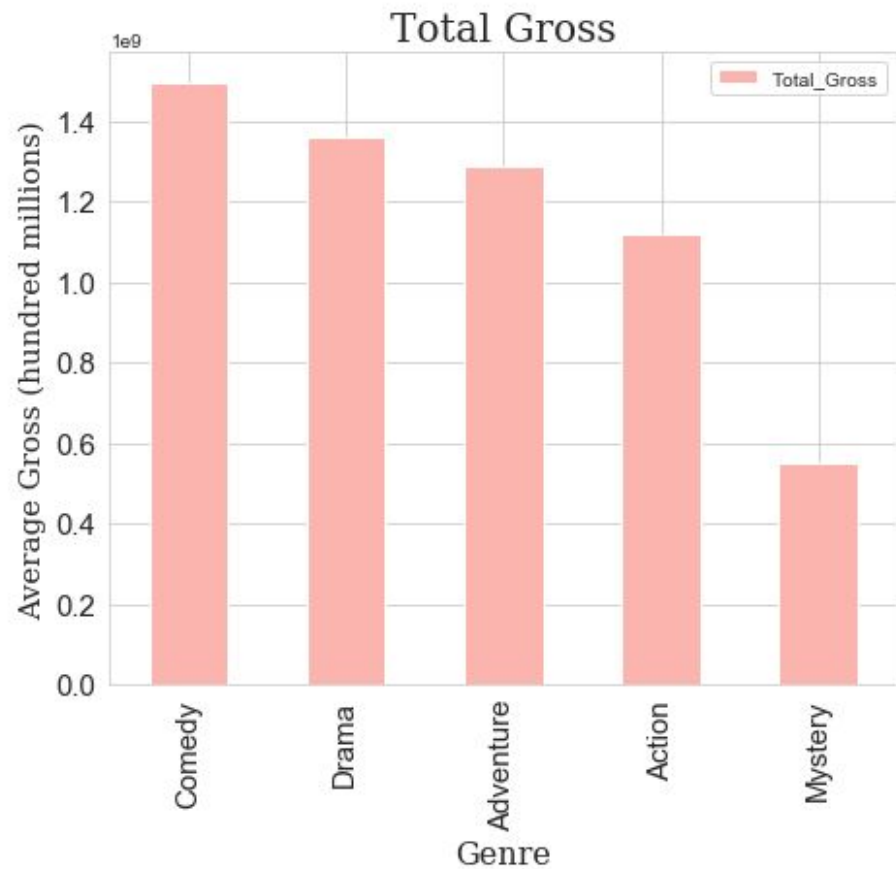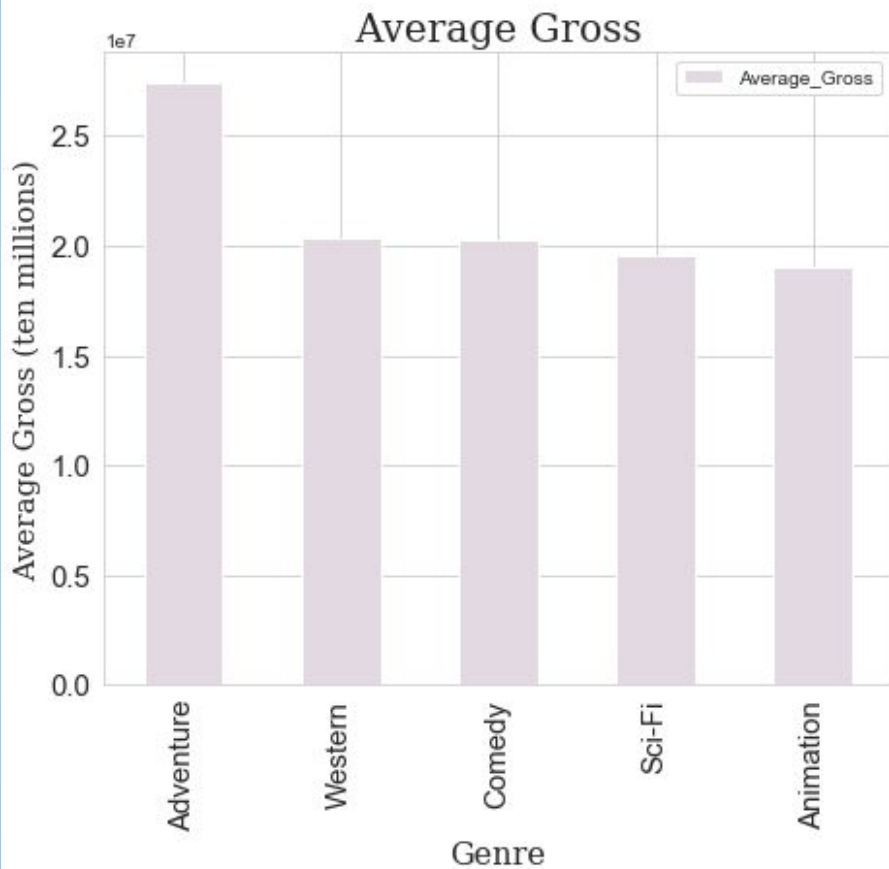
2

What are the highest-grossing movie genres?

Gross Values by Genre

Takeaways:

Adventure, comedy, sci-fi, and western films have the highest average gross values. Additionally, **adventure** and **comedy** films have the highest total gross values. If Microsoft wants to be successful in a genre area that's not already saturated, it should opt for **sci-fi** and **western** films.
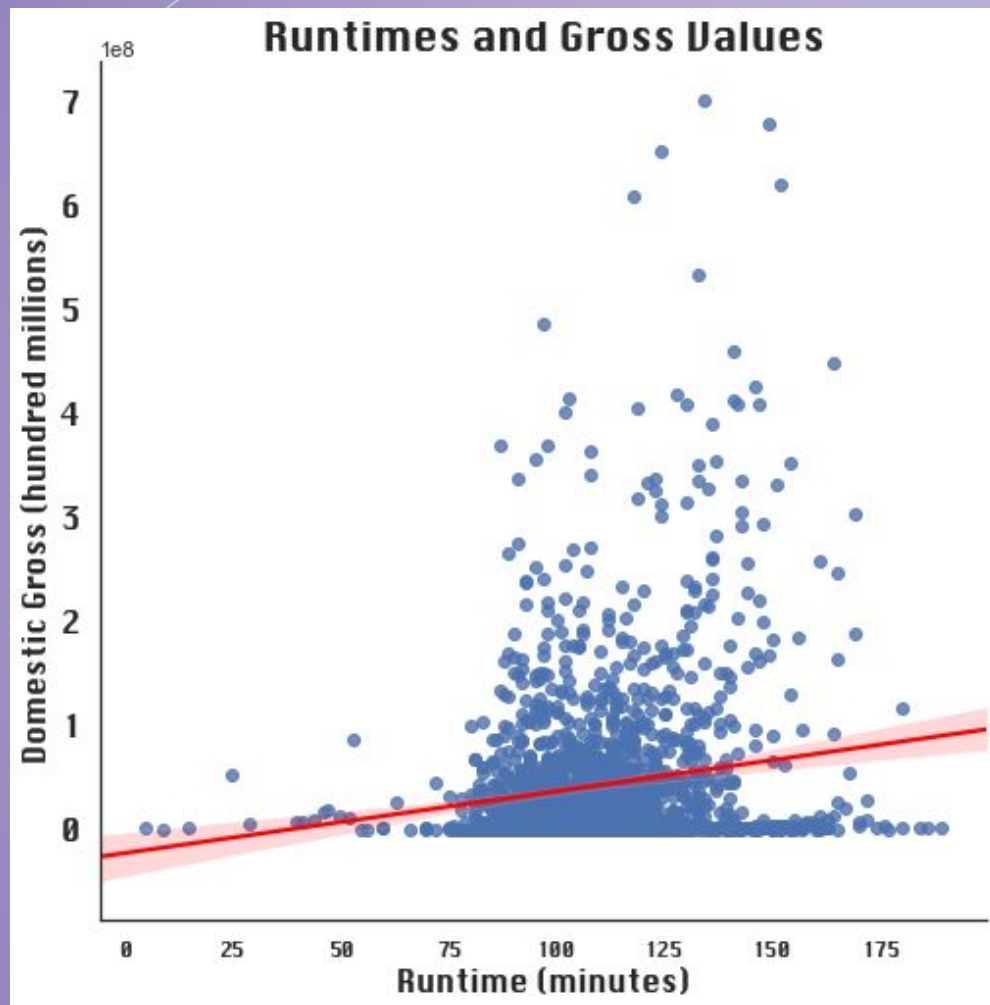
Top Grossing Movie Genres

3

What is the ideal range for movie runtimes, in terms of profitability?
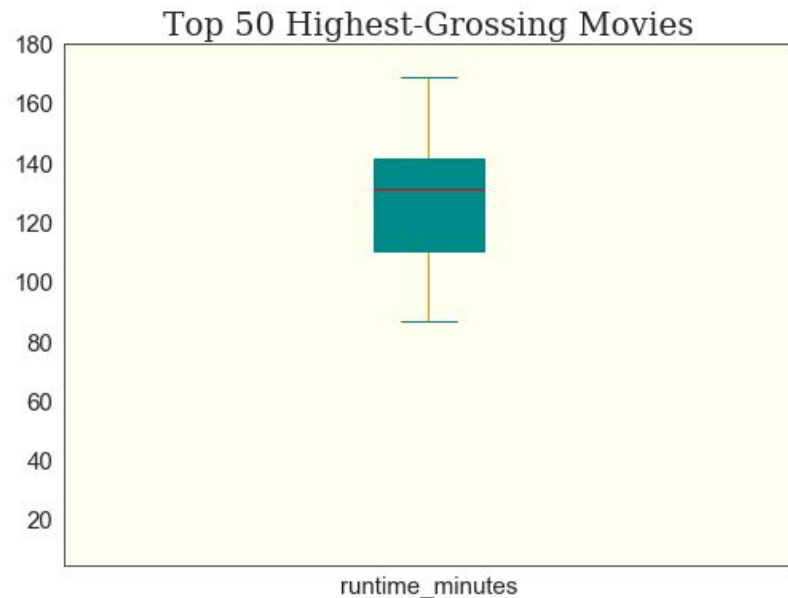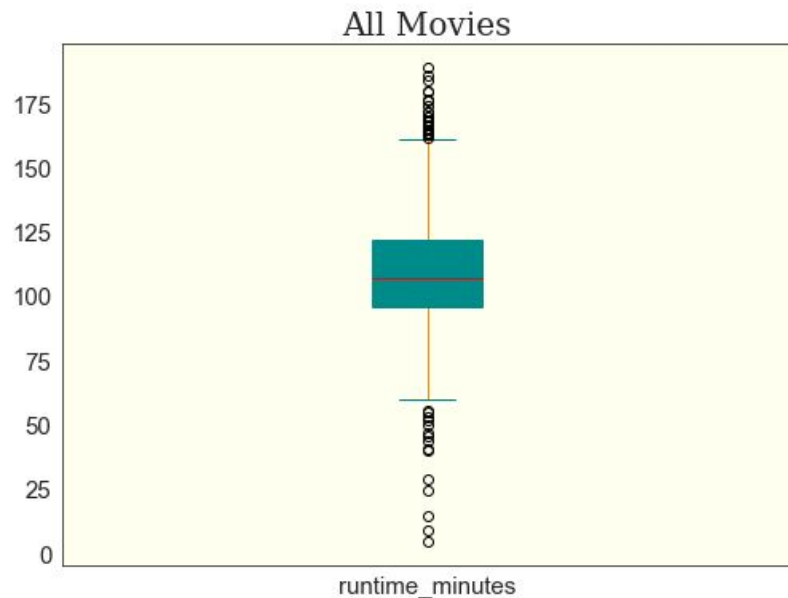
Runtimes and Gross Values

Takeaways:

The vast majority of films gross below 200 million USD.

Those that gross well above this number, however, have a runtime that falls **between 100 and 150 minutes**.

This should be the widest runtime range for Microsoft's profit-oriented films.

Distribution of Movie Runtimes

All Movies

Top 50 Highest-Grossing Movies

- ➢ **Min:** 5
- ➢ **Max:** 189
- ➢ **Min:** 87
- ➢ **Max:** 169

- ➢ **Mean:** 110
- ➢ **Median:** 107
- ➢ **Mean:** 127
- ➢ **Median:** 132

- ➢ **25th percentile:** 96
- ➢ **75th percentile:** 122
- ➢ **25th percentile:** 110
- ➢ **75th percentile:** 141

Takeaway: Microsoft should create movies within an ideal runtime range of **110 and 140 minutes**.

Summary

Genres

→ Microsoft should create adventure, comedy, sci-fi and western films.

→ Adventure and comedy films are both in the top 5 highest-grossing genres, in terms of both average and total gross numbers. Western and sci-fi films are more rare, but have highly competitive average gross values.

Ratings

→ The most well-reviewed films have either no rating or a G-Rating.

→ Microsoft should make unrated and G-rated movies.

Runtimes

→ Microsoft's ideal runtime range is between 110 and 140 minutes.

→ The average runtime for the highest-grossing films is just over 2 hours, which suggests that this may be the "sweet spot" for many audiences.

Possibilities for future analysis

How do the most common genres compare to other genres in terms of attracting viewers?

What is the best time of year to release a movie? Do some months see more movie rentals/ticket sales than others?

What types of movies perform the best in various foreign markets? How do foreign gross values compare to domestic gross values?

Thank you!