

An Exploratory Data Analysis on Movie Data

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Flatiron School - Phase 1
June 3rd, 2022

Outline

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

Overview

- Microsoft Studios is up and coming
- Where do we start?
 - Types of films?
 - Budgets?
 - Ratings?



Microsoft



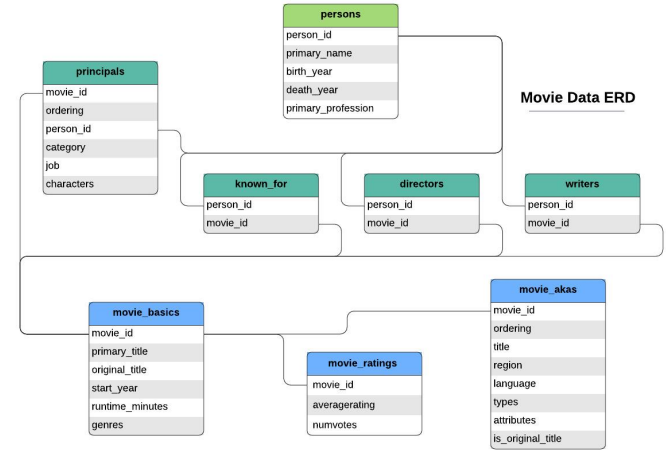
The Business Problem:

- To explore the demographic of movies and analyze metrics for success in the box office.
- Translate these findings into actionable insights for Microsoft's new movie studio.

Data Sources

Data:

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



Methods

Data Cleaning

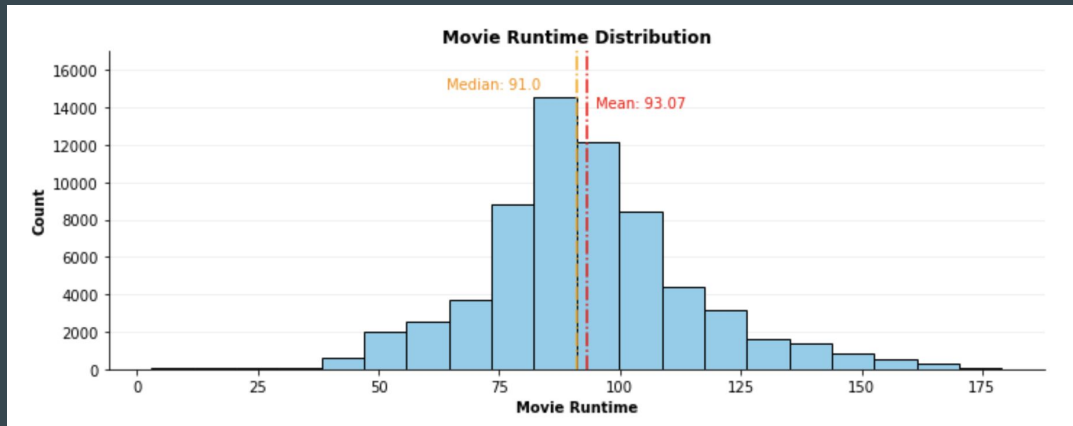
- Cleaning across datasets
- Joining relevant information
 - Budgets, ratings, release dates

Results

Movie Runtime

Most movies are centered around a 90 minute runtime.

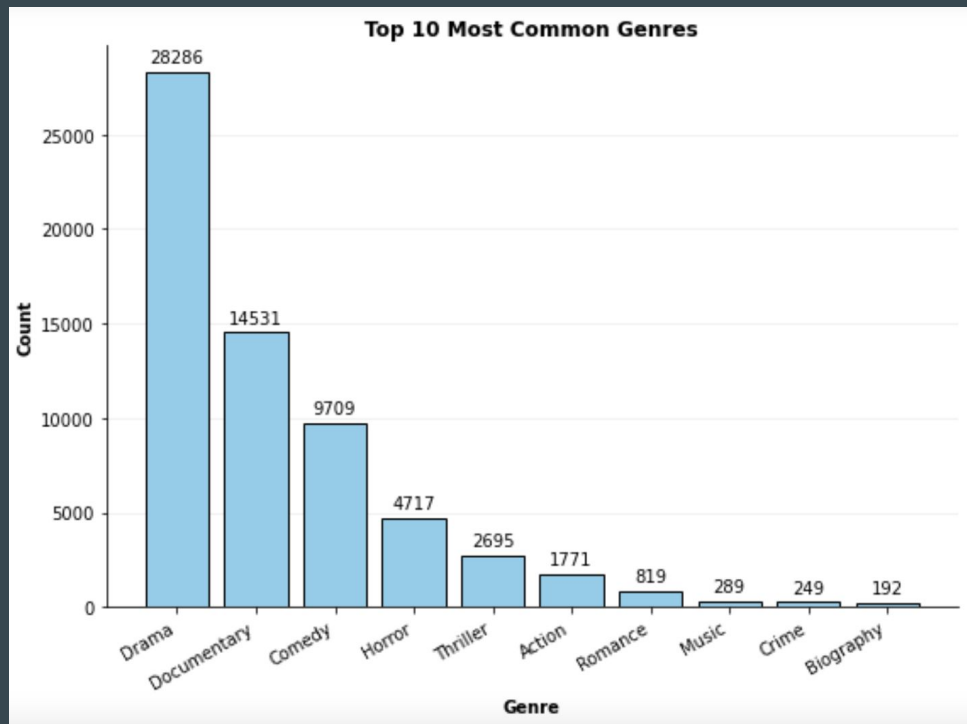
- Average rating for 90 minute movies range between 5 - 7 (on a scale of 1-10).
- Generally, movies with less than a 90 minute runtime yielded higher ratings.



Results

Top Genres

Most frequently classified genre is the “Drama”.

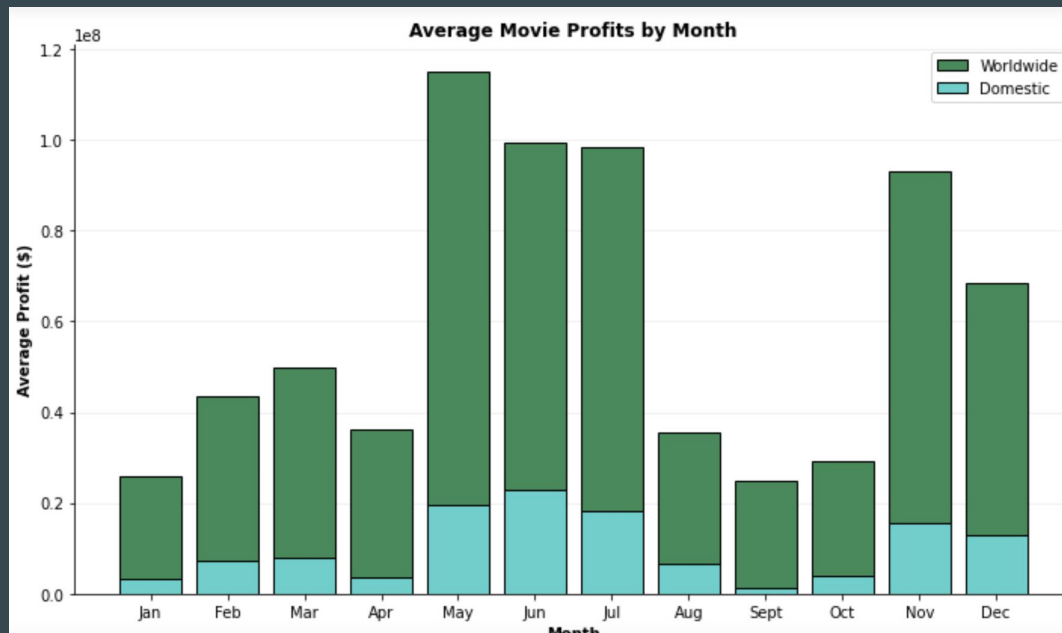


Results

Profits - Month

Most movies are centered around a 90 minute runtime.

- Average rating for 90 minute movies range between 5 - 7 (on a scale of 1-10).
- Generally, movies with less than a 90 minute runtime yielded higher ratings.

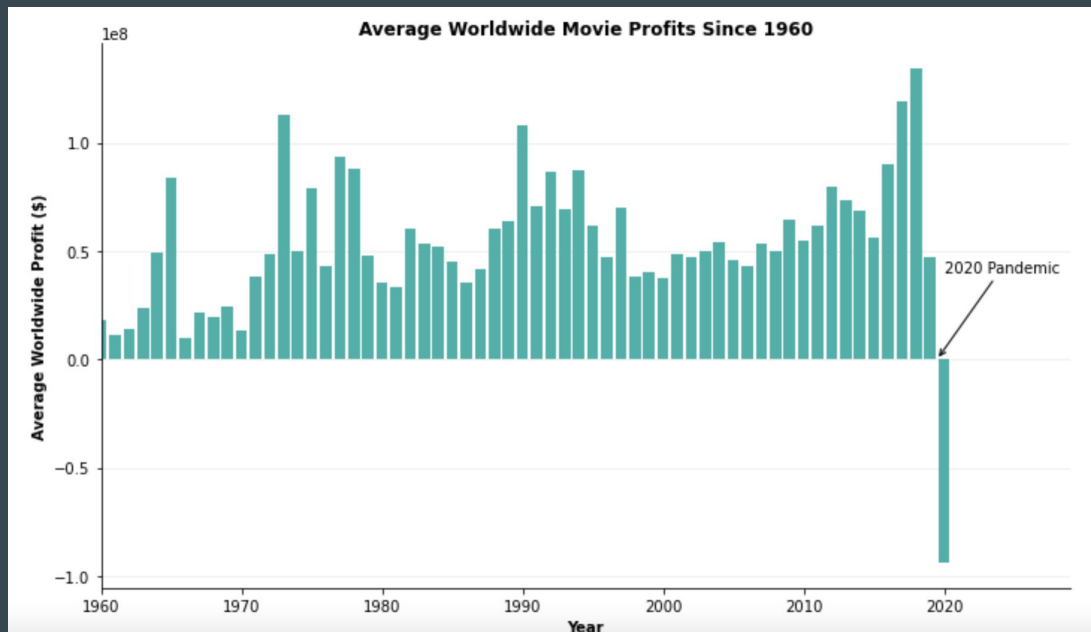


Results

Profits (Since 1960)

Most movies are centered around a 90 minute runtime.

- Average rating for 90 minute movies range between 5 - 7 (on a scale of 1-10).
- Generally, movies with less than a 90 minute runtime yielded higher ratings.

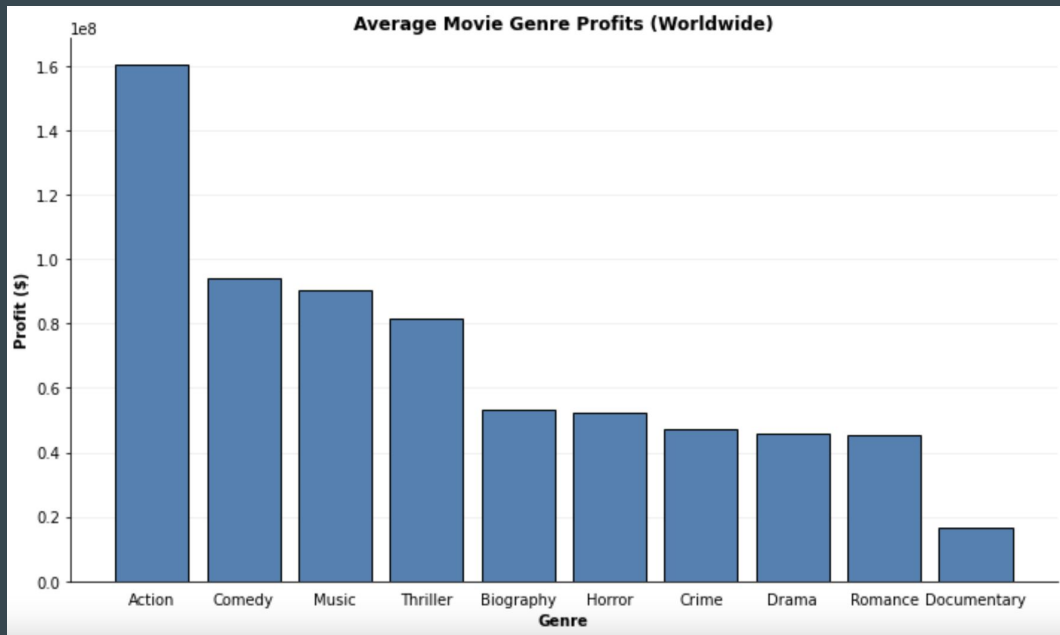


Results

Profits by Genre

Most movies are centered around a 90 minute runtime.

- Average rating for 90 minute movies range between 5 - 7 (on a scale of 1-10).
- Generally, movies with less than a 90 minute runtime yielded higher ratings.



Results

Top 20 Movies

Most movies are centered around a 90 minute runtime.

- Average rating for 90 minute movies range between 5 - 7 (on a scale of 1-10).
- Generally, movies with less than a 90 minute runtime yielded higher ratings.



Recommendations

Release Date

- Movies generate greatest profit in the summer and winter holiday months

Movie Genres

- Drama, documentaries, comedy most frequent
- Action, comedy, music generate most profit (worldwide)

Runtime & Ratings

- Most movies are 90 minutes
- Generally, shorter movies are more highly rated.

Future data needed

- Monitor movie theater attendees post 2020

Questions?

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