

EFFECTS ON MOVIES' POPULARITY AND BOX OFFICE REVENUE

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AGENDA

- ▶ Problem Statement
- ▶ Objectives
- ▶ Research Methodology
- ▶ Data Collection and Results
- ▶ Conclusion
- ▶ Future Analysis

PROBLEM STATEMENT

Microsoft wants to have data analysis about what types of films are currently doing the best at the box office

→ Looking at what factors that affect a movie's popularity and box office revenue, based on given datasets from multiple sources

OBJECTIVES

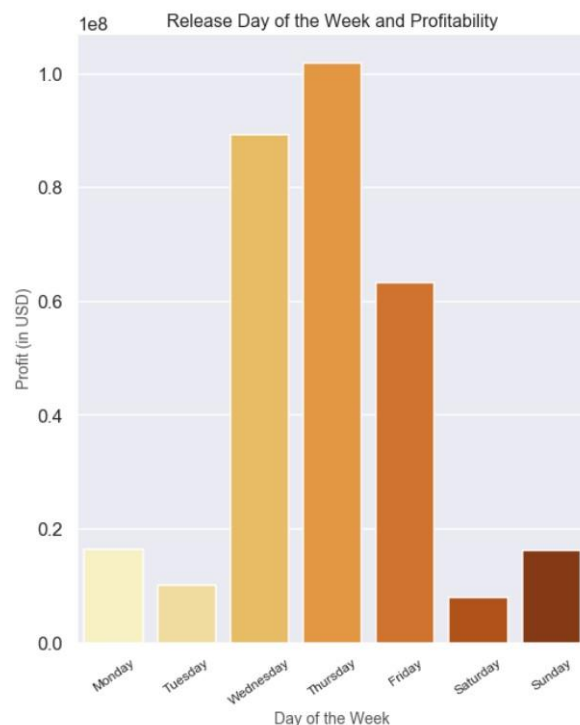
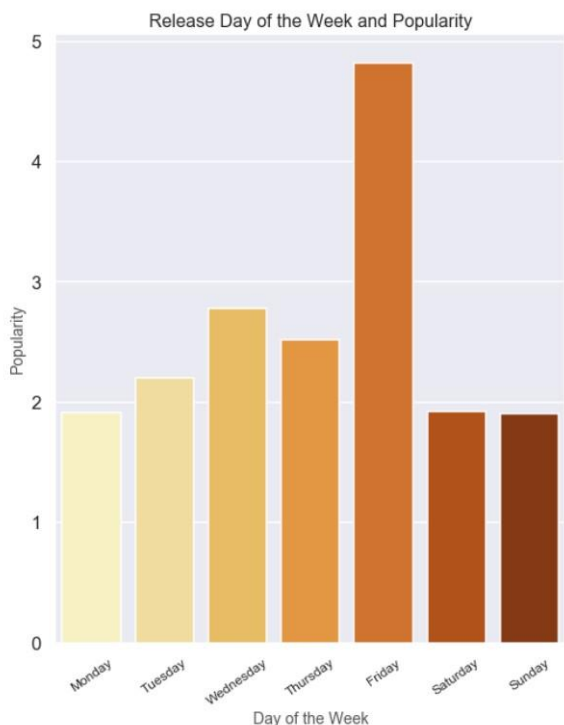
1. How does the release date of a movie affect its popularity and profit?
2. How does the genre of a movie affect its popularity and profit?
3. How the cost of making a movie affect its popularity and is there a relationship between production budget and profit?
4. Can duration of a movie have any effect on the popularity and profitability?

RESEARCH METHODOLOGY

- ▶ Browsing through datasets from Box Office Mojo, IMDB, Rotten Tomatoes and TheMovieDB.org
- ▶ Data cleaning
- ▶ Exploratory data analysis (EDA)

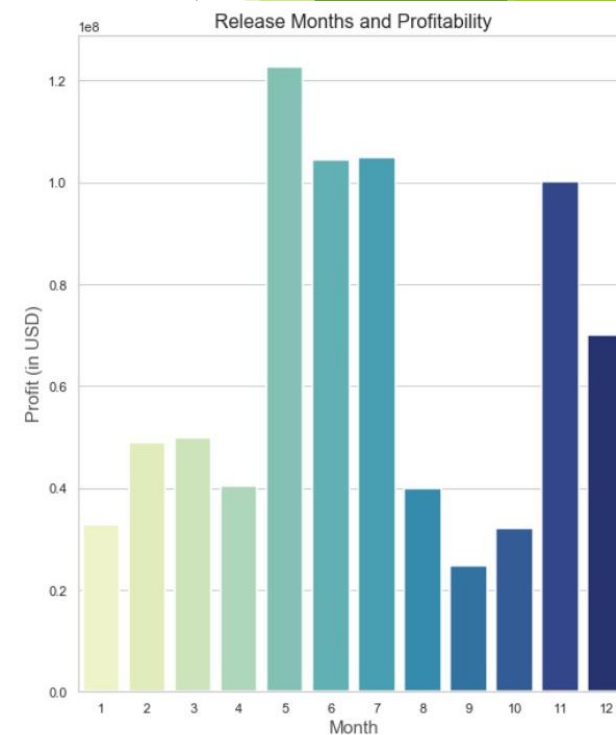
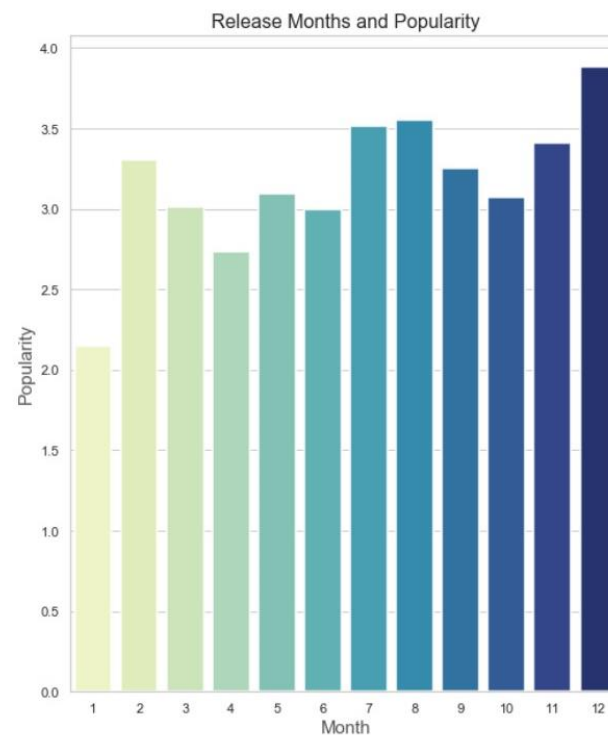


Movies in the recent decade: from 2000 to 2018



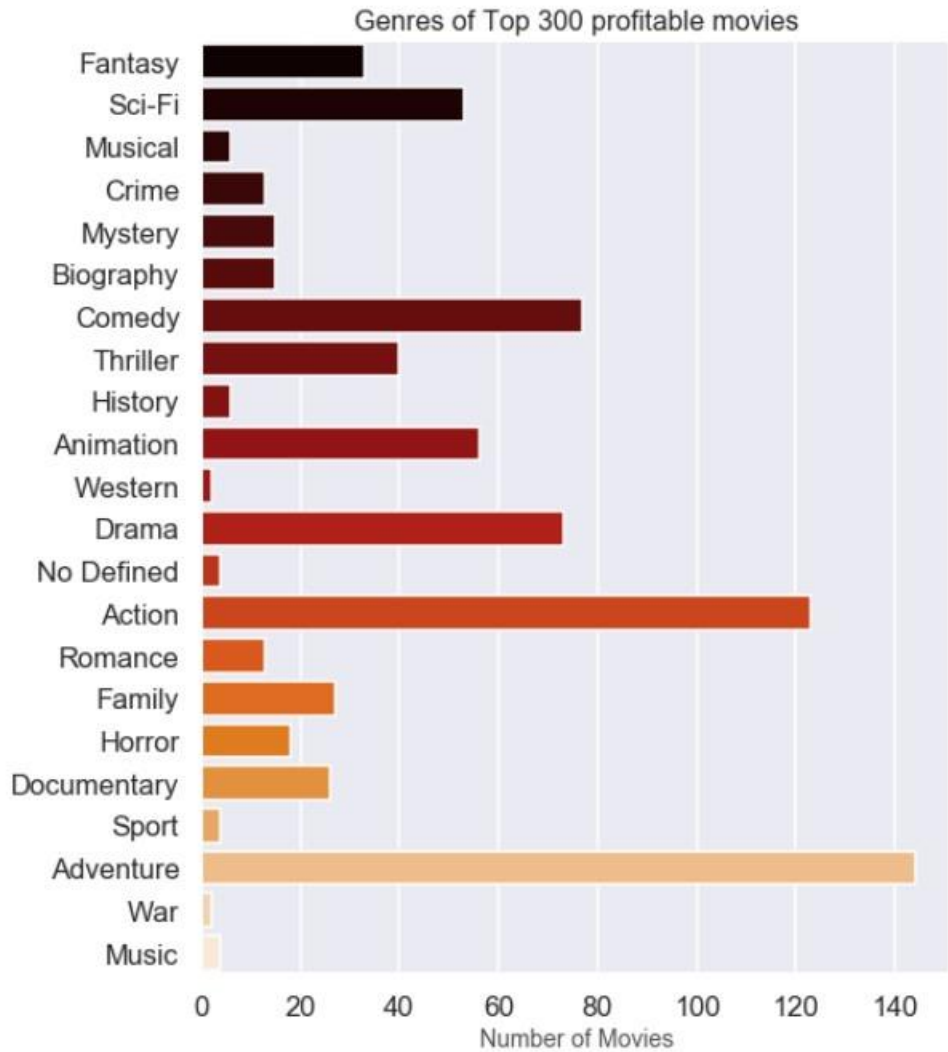
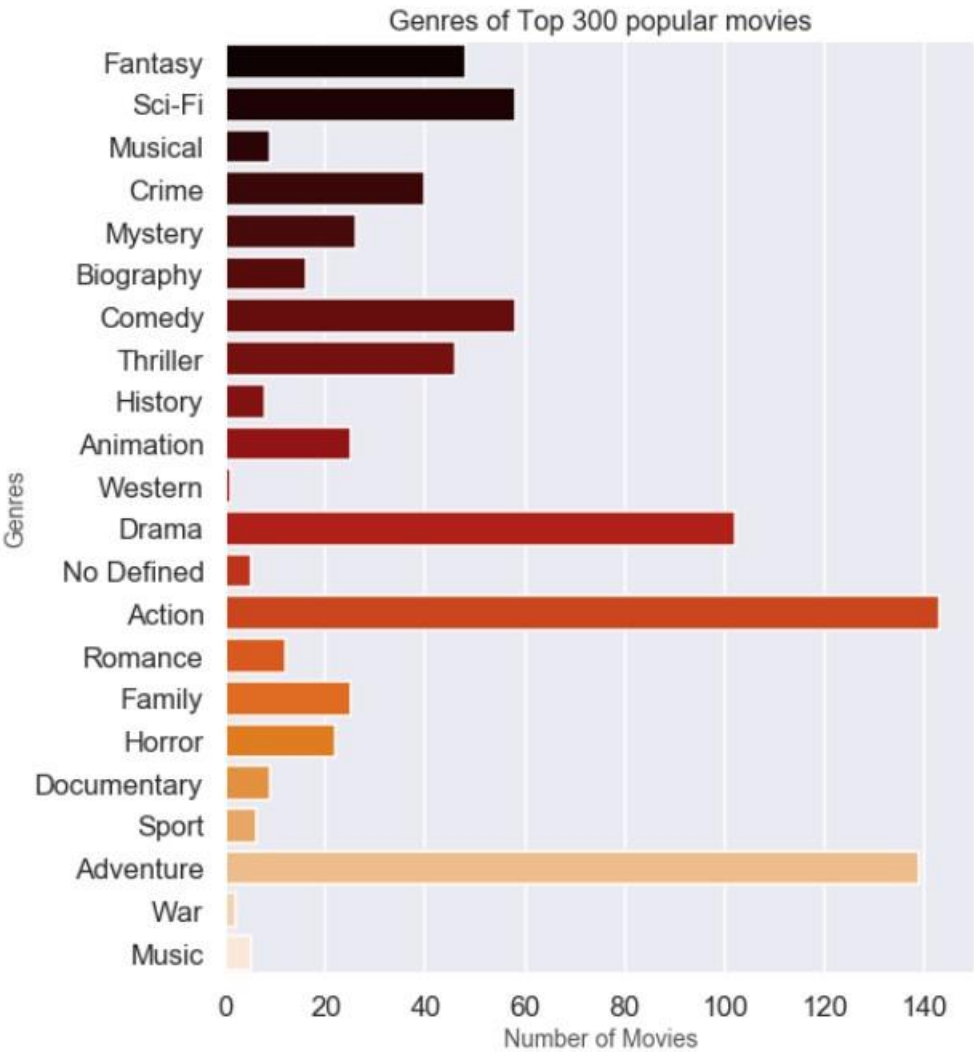
- Friday is the most popular day for movie premiere
Compared to the lowest days: 87%
Wed and Thurs: 58%
- Release a movie on Wed and Thurs
bring more profit
Thurs vs. Tues: 167%
Thurs vs. Fri: 54%

- Summer and Winter are the popular seasons for movie premiere
- Distinct difference in profit
May vs. Sept: 138%
Nov vs. Sept: 128%



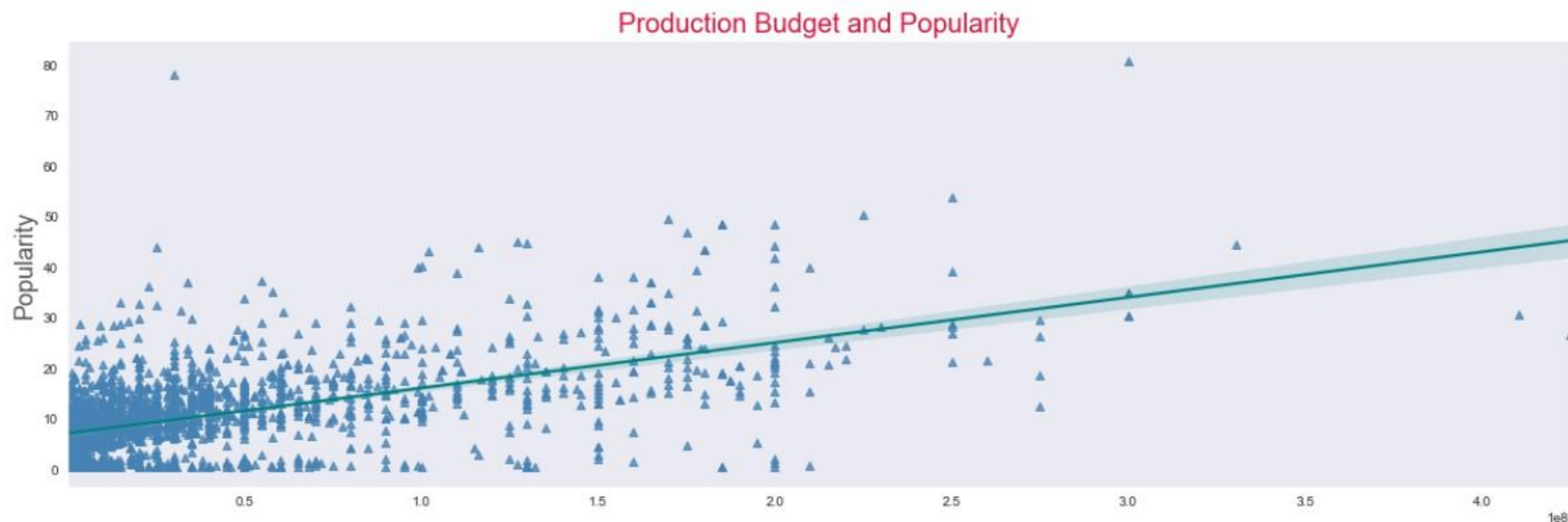


Top 300 movies in the recent decade

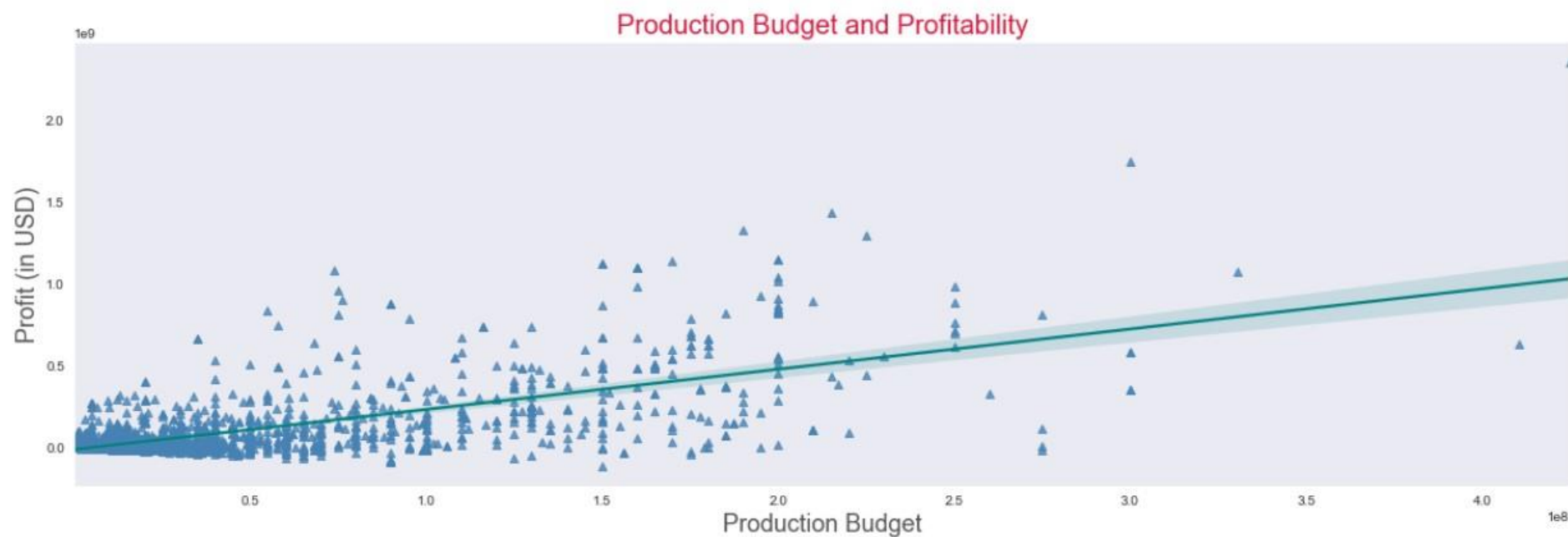




- Popularity:
Average cost: \$108 mil
Minimum cost: \$1 mil



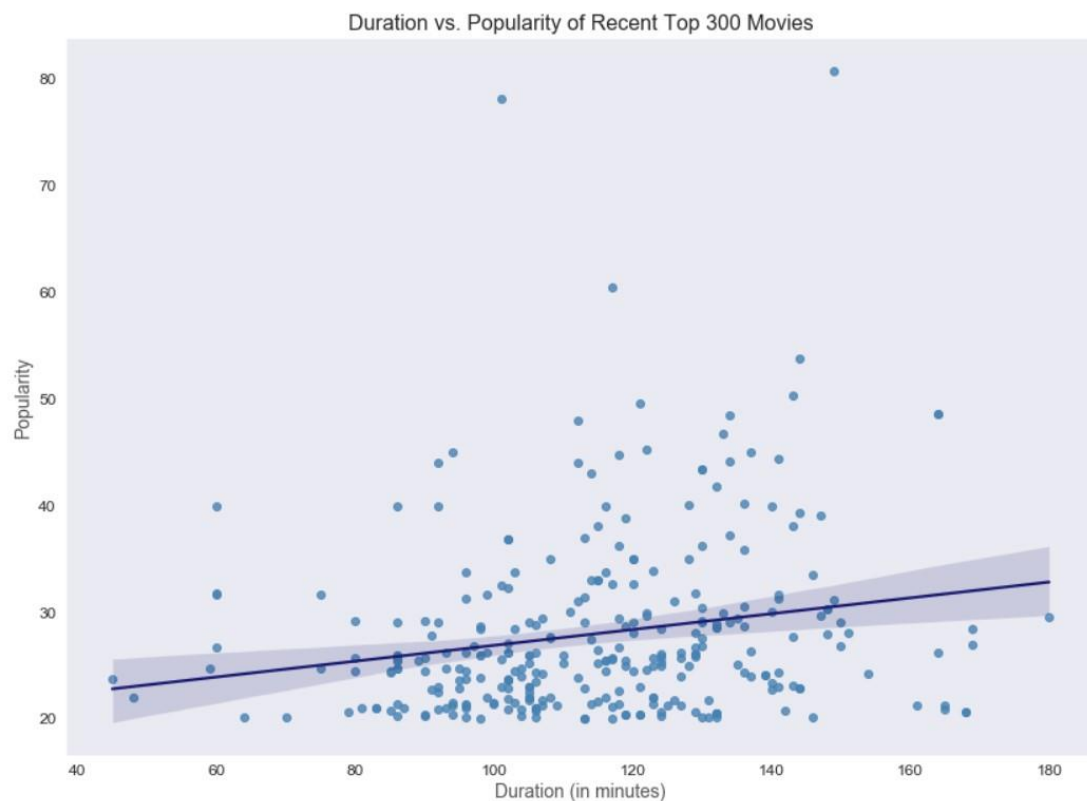
- Profit:
Average cost: \$120 mil
Minimum cost: \$3 mil



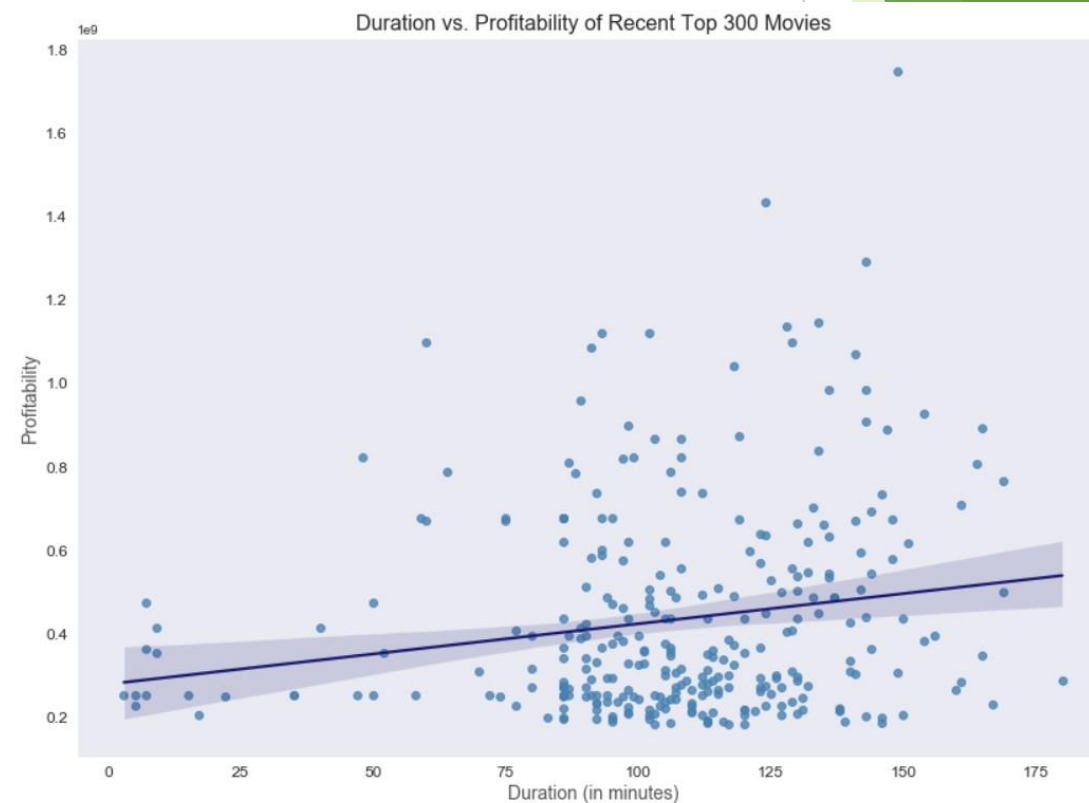
Correlation value between Production Budget and Popularity: 0.57
Correlation value between Production Budget and Profit: 0.69



- Correlation value between runtime and popularity: 0.26
profit : 0.17
- No distinct correlation between movie duration and popularity or profit
→ find the average duration of a movie that have high popularity and profit
→ Top 300 recent movies that are most popular and profitable and also have duration less than 300 minutes



Most of the popular movies: 120 minutes



Most of the profitable movies: 115 minutes

CONCLUSION



PREMIERE TIME

- ▶ Summer Break and Holidays Season
- ▶ Thursday and Friday



MOVIE GENRES

- ▶ Action
- ▶ Adventure
- ▶ Drama
- ▶ Comedy
- ▶ Sci-Fi



PRODUCTION COST

- ▶ Correlation between production cost and popularity/profit
- ▶ Average cost: \$114 mil
- ▶ Minimum cost: \$2 mil



MOVIE DURATION

- ▶ No distinct correlation between runtime and popularity/profit
- ▶ About 115 to 120 minutes

FUTURE ANALYSIS

- ▶ Movie stars
- ▶ Brand recognition
Big-six studios: Disney, Warner Bros, Universal, Paramount, Sony, and Fox
- ▶ Film crews

