

# Movie Success Analysis

Phase 1 Project

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# Overview of Study

- Business Problem – What makes for a **Successful Movie**?
- **Solution** to problem:
- Exploratory Data Analysis
- Data sources – Rotten Tomatoes, IMDB, TMDB, Box Office Movies
  - Data Prepped and Cleaned
  - Statistical visuals Generated and Observed
  - Key **measurements of success**:
  - **Rating, Revenue, Profit, and Return on Investment**

## Question #1 - What Genres lead to the most revenue at the box office?

### Highest Grossing Genres:

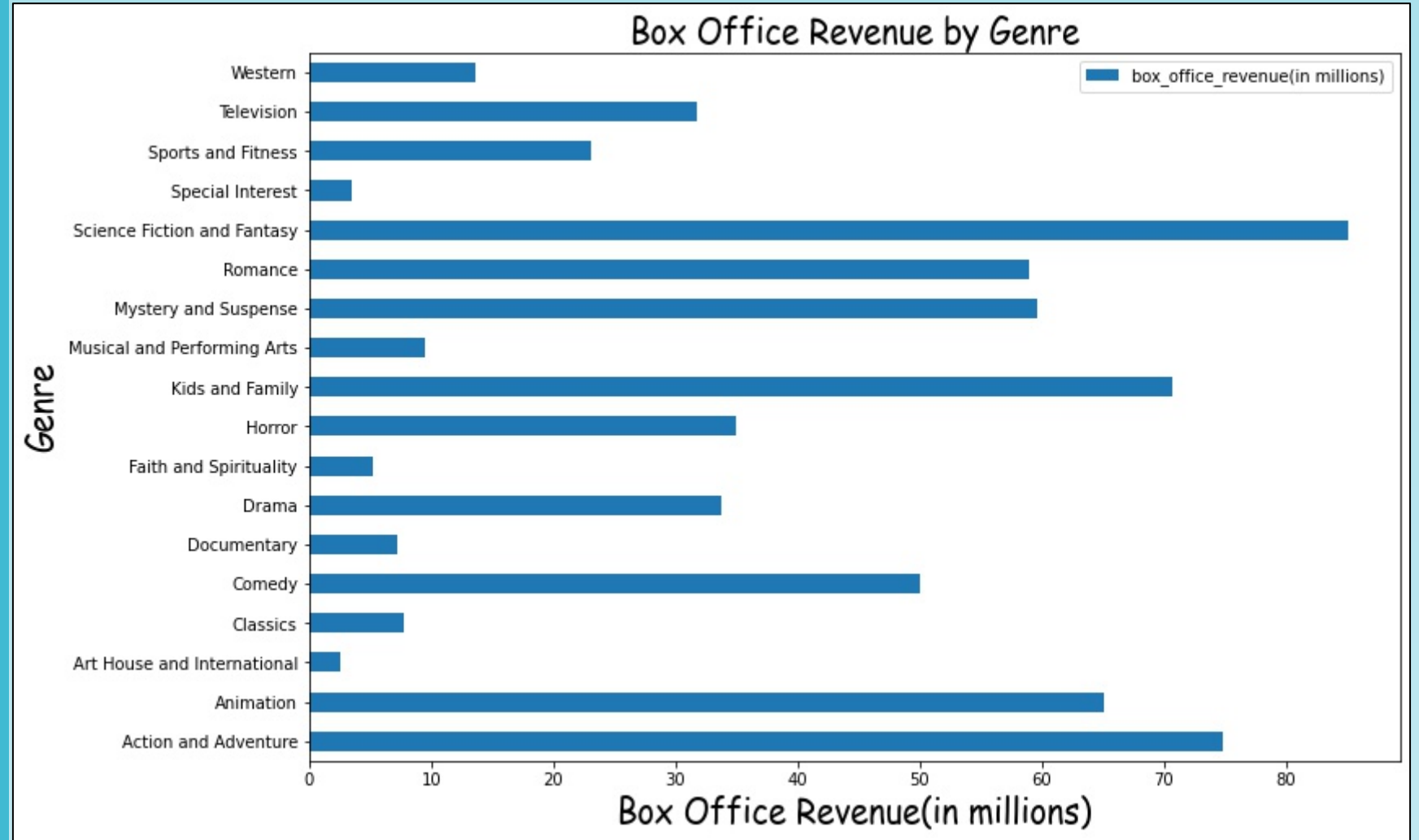
- Science Fiction and Fantasy
- Action and Adventure
- Kids and Family

### Medium-High Performing:

- Romance
- Mystery and Suspense
- Animation
- Comedy

### "Niche" Genres:

- Drama
- Horror
- Television
- Sports and Fitness



## Question #2 - What Genres lead to the profit?

### Highest Profit Genres:

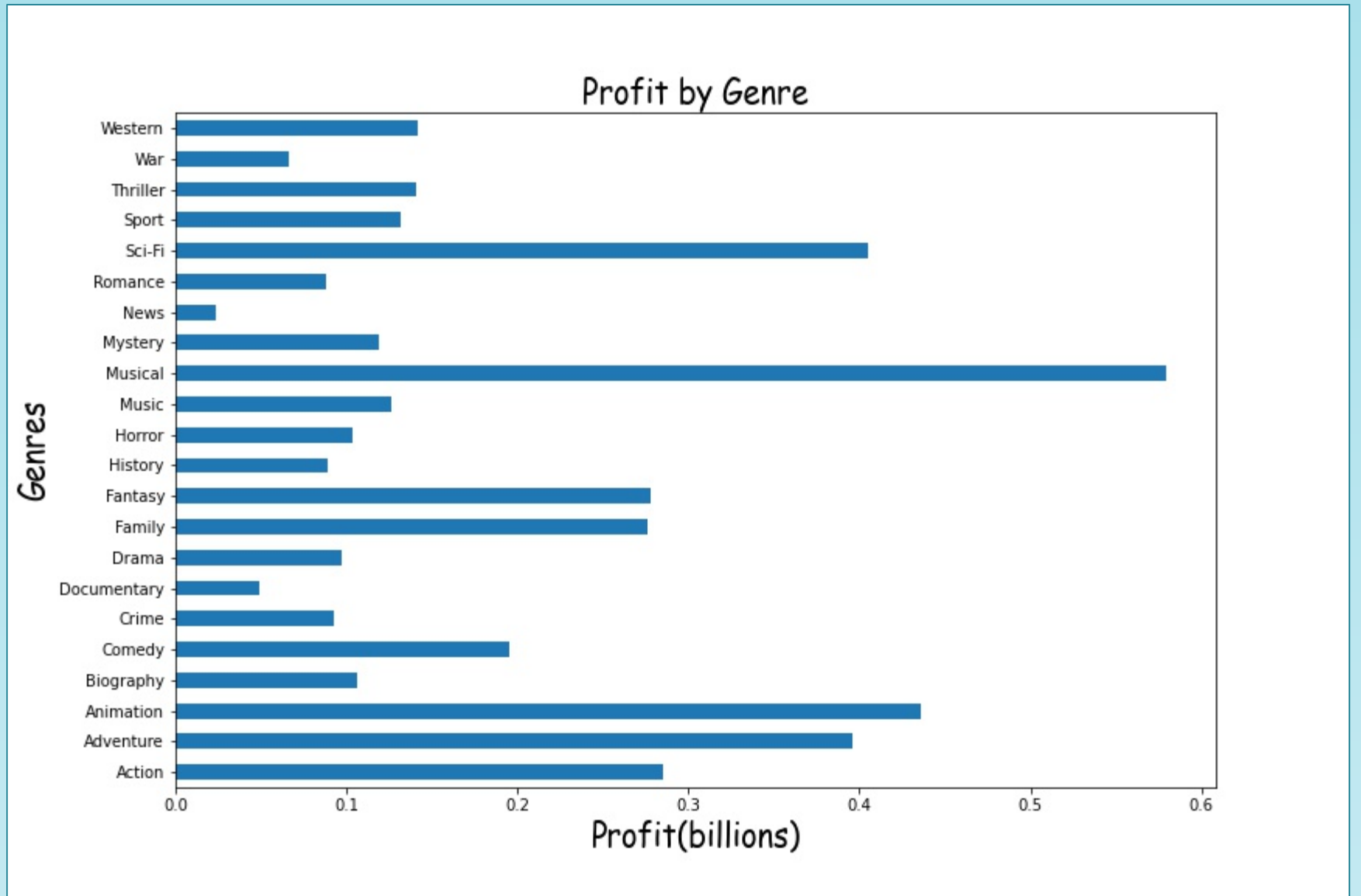
- Musical
- Sci-Fi
- Animation

### Medium-High Performing:

- Action
- Fantasy
- Family
- Comedy

### Worst Performers:

- News
- Documentary
- War

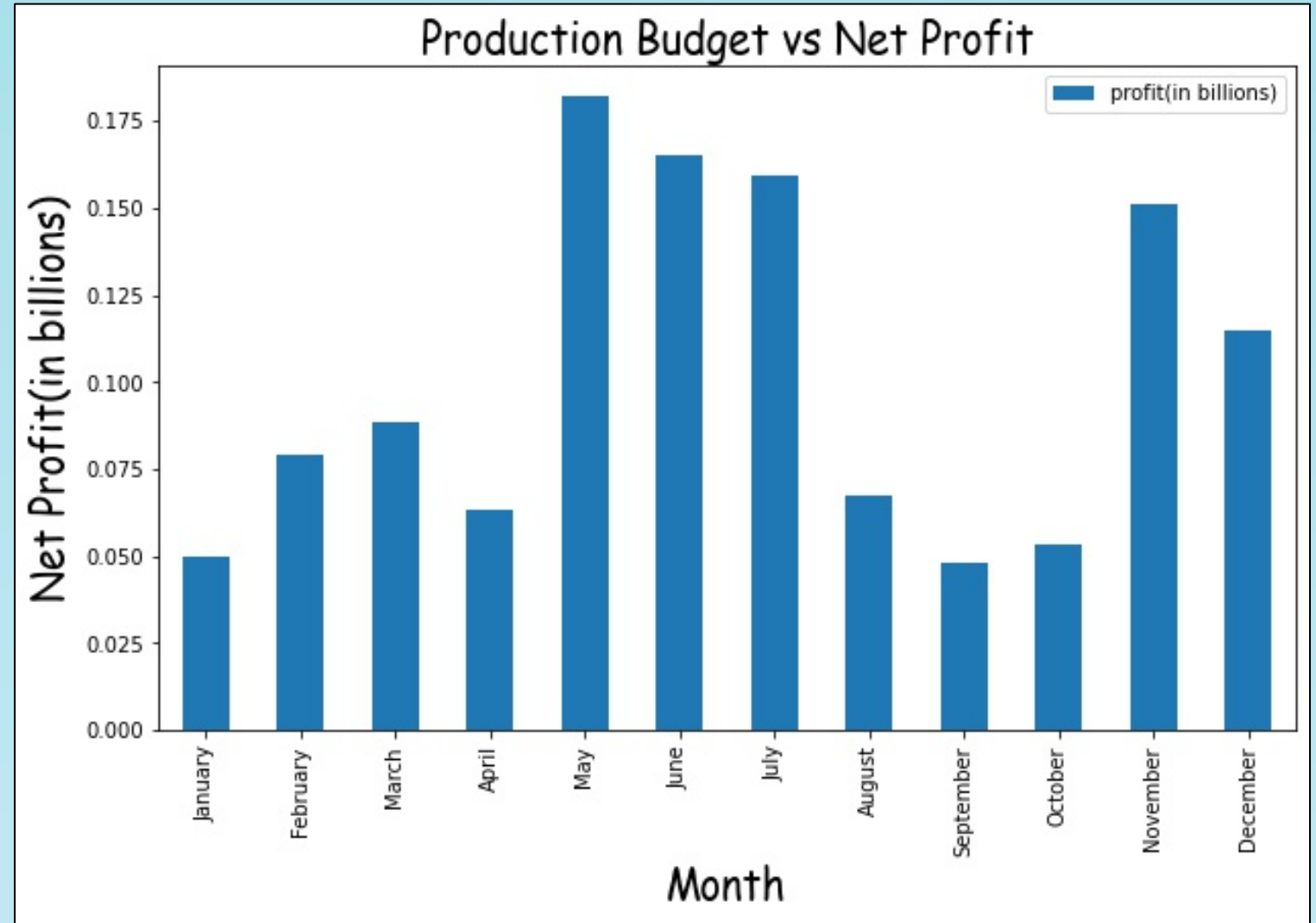


### Question #3 - What time of the year leads to the highest net profit?

#### Highest Months for Profit:

- May
- June
- July
- November
- December

This is likely due to the Summer and holidays months being so popular for movies.

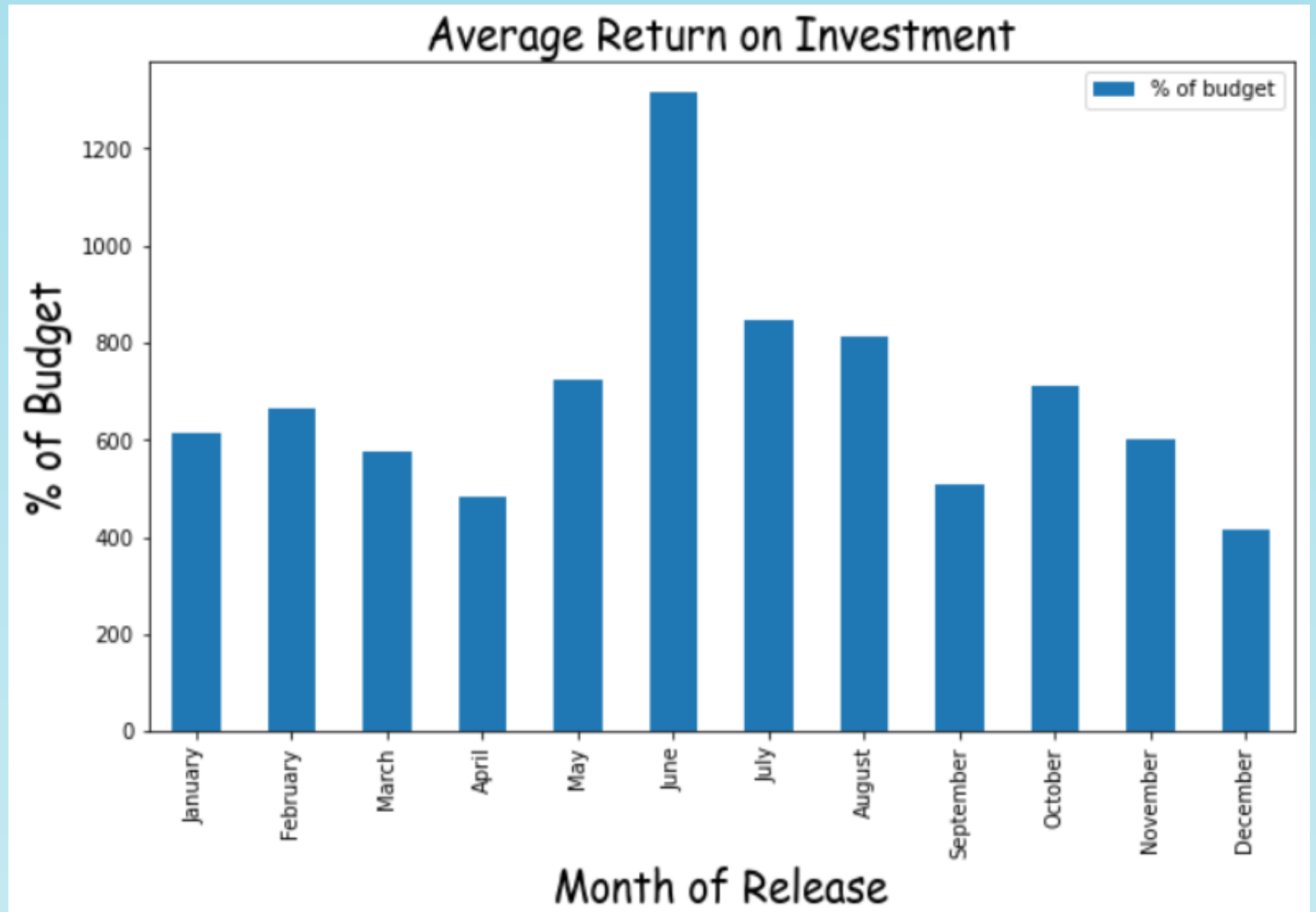


Question #3 - What time of the year leads to the highest return on investment?

Highest Months for ROI:

June - highest potential for return on investment.

Likely because budgets for movies are not necessarily higher in the Summer, but the popularity is!



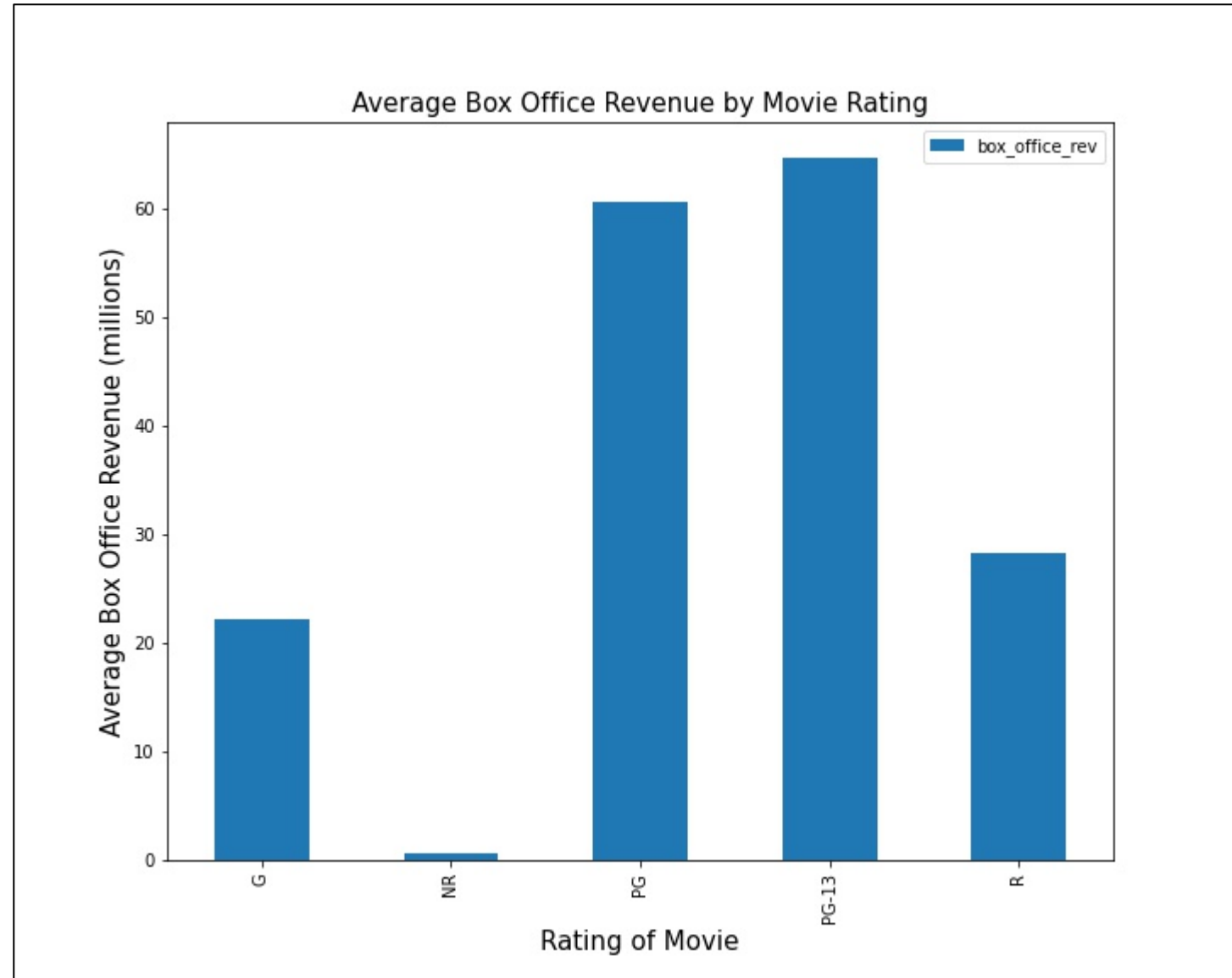


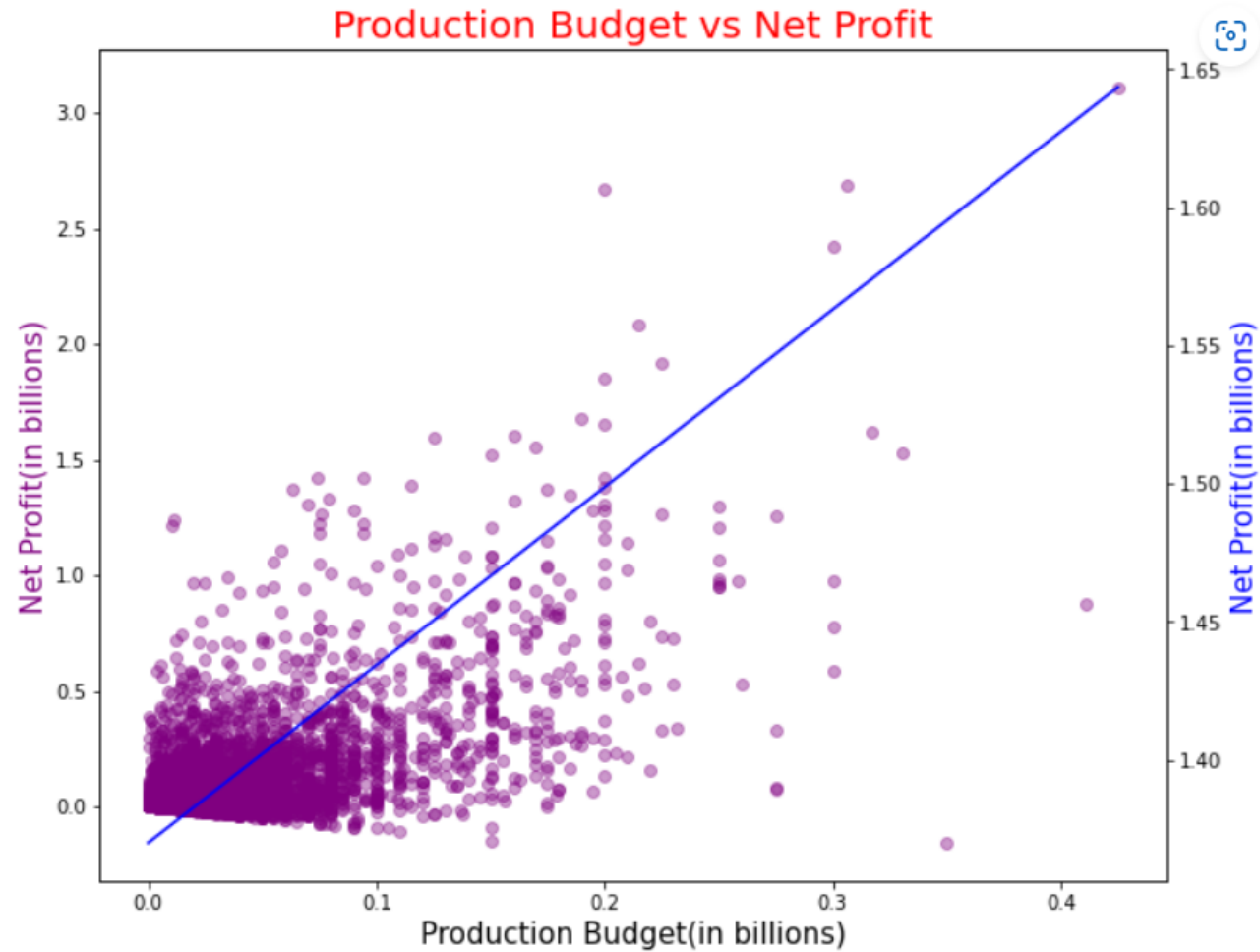
## Question #4 - What rating leads to the highest box office revenue?

- The average revenue for ratings appears to favor PG and PG-13 films

Possible reason:

- Rated R and G movies will by design exclude a subset of viewers for a population due to age.

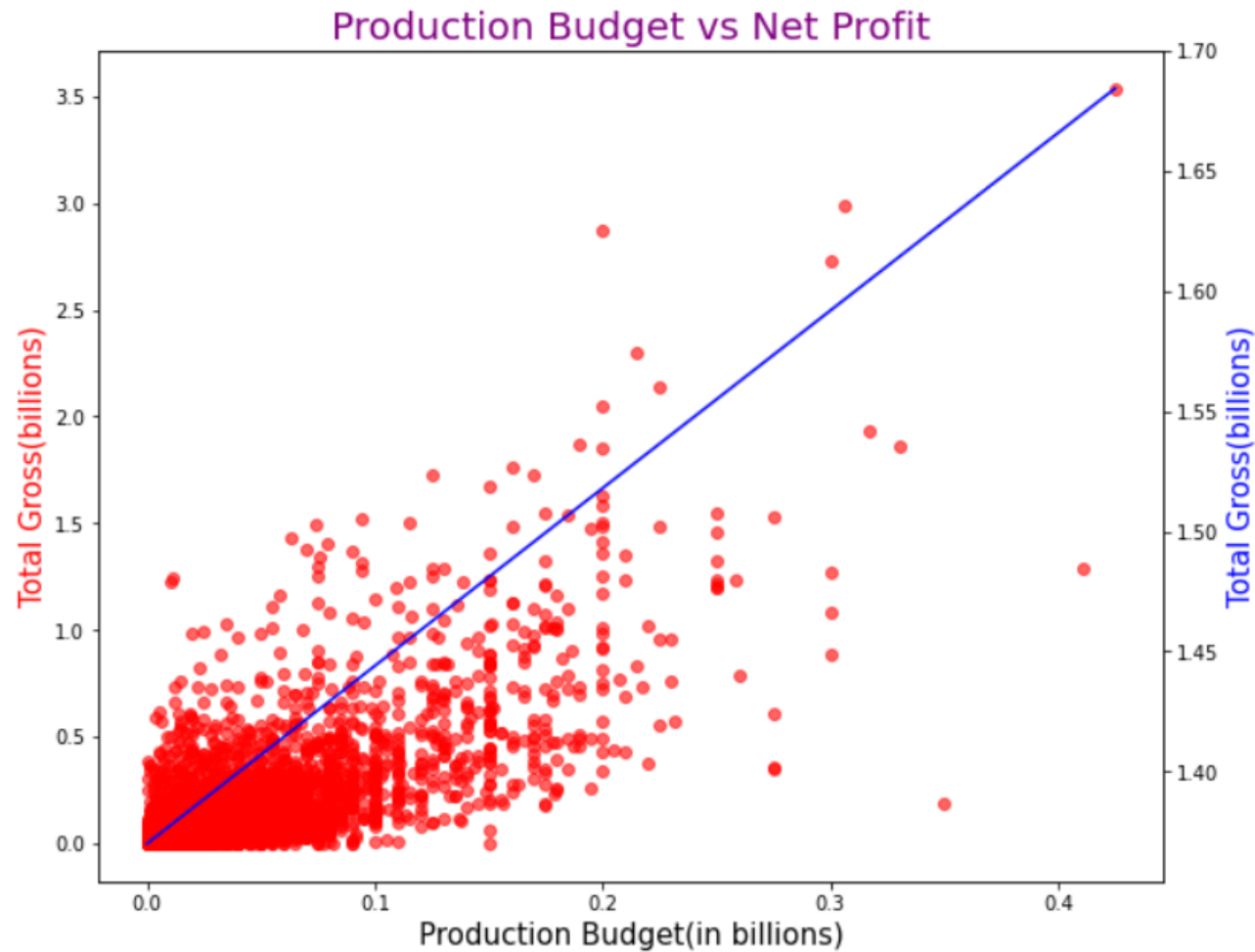




The Correlation Coefficient is: 0.643579874967001. This is a sign that the budget has a positive, but weak correlation to profit of the film. With a weak correlation, it makes sense to try keeping the budget low as it is where the highest concentration of the data is.



The Correlation Coefficient is: 0.7399121495609374. This is a sign that the budget has a positive, but weak-medium correlation to gross revenue of the film. With a medium correlation, it makes sense to try keeping the budget low as it is where the highest concentration of the data is. The risk with a higher budget does appear to be too high as it grows.



# Moving forward

- Recommendations
- #1: Keep the Budget low to manage risk.
- #2: Release Movies during the Summer and the Holiday Season.
- #3: Maximize these Genres:
  - Action, Adventure
  - Science-Fiction, Fantasy, Animation
  - Musicals
  - Preferably in the PG, PG-13 rating