



# BOX OFFICE MOVIE ANALYSIS

A GROUP 6 PROJECT

**“WE DON’T MAKE MOVIES TO MAKE  
MONEY, WE MAKE MONEY TO MAKE  
MORE MOVIES”**

*~ WALT DISNEY ~*





# OVERVIEW

- Objective: Explore which film genres, release times, and formats are the most successful at the Box Office.
- Deliverable: Help our new client's studio make smarter, more profitable films.
- Data sources: Box Office Mojo, IMDb, Rotten Tomatoes, The Numbers.

A dark, atmospheric photograph of rows of red theater or cinema seats. The seats are arranged in a perspective that recedes towards the top of the frame. They are upholstered in a deep red fabric with black piping along the edges. The lighting is low, creating strong shadows and highlights on the backrests and armrests of the seats.

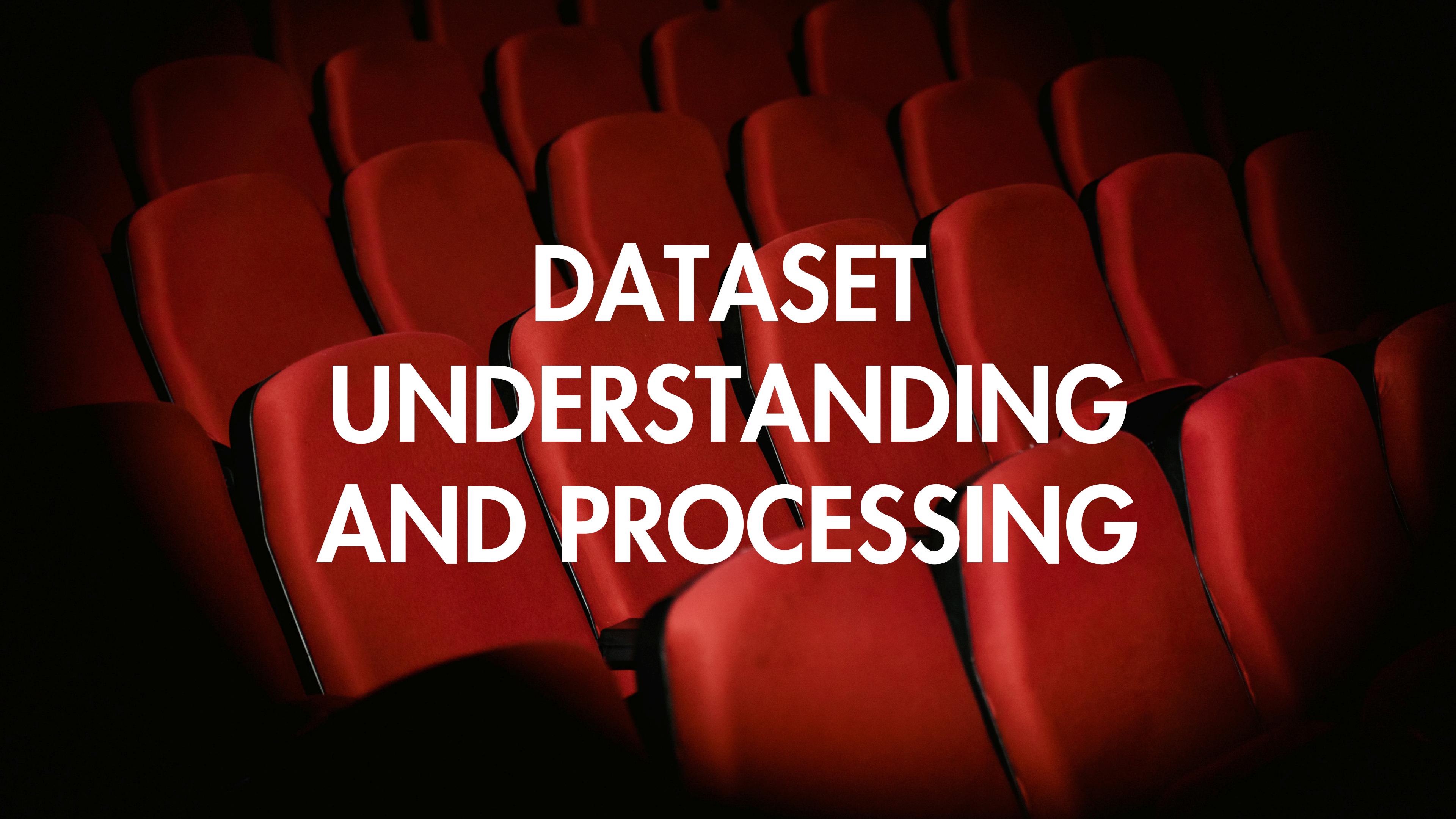
# BUSINESS UNDERSTANDING

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Challenge: We are entering a competitive market without movie production experience.

Key Business Questions:

1. Which genres are most profitable?
2. What release season(Q1-Q4) maximizes earnings?
3. What is the impact of talent (actors, actresses, and directors) on revenue generated?

The background of the image shows a row of red theater-style seats in a dark room, likely a movie theater. The seats are arranged in a curve, facing towards the left side of the frame. The lighting is dramatic, with the red seats standing out against the dark background.

# **DATASET UNDERSTANDING AND PROCESSING**

# DATASET UNDERSTANDING

Datasets used:

Bom.movie\_gross.csv:

- Source: Box Office Mojo
- Key Fields: title, studio, domestic\_gross, year
- Purpose: Revenue insights & release timing

Movie\_budgets.csv:

- Source: The Numbers
- Key Fields: movie, release\_date, production\_budget, worldwide\_gross
- Purpose: Budget, total profits, ROI calculation

# DATASET UNDERSTANDING CTD...

IMDb SQLite Database:

Tables used:

- Movie basics:
  - Fields: primary\_title, runtime\_minutes, genres, mpaa\_rating
  - Purpose: Genre classification, runtime, content rating
- Movie ratings:
  - Fields: movie\_id, average\_rating, num\_votes
  - Purpose: IMDb audience rating insights

Join key: movie\_id between movie\_basics and movie\_ratings

Merged with other datasets using primary\_title and release\_year

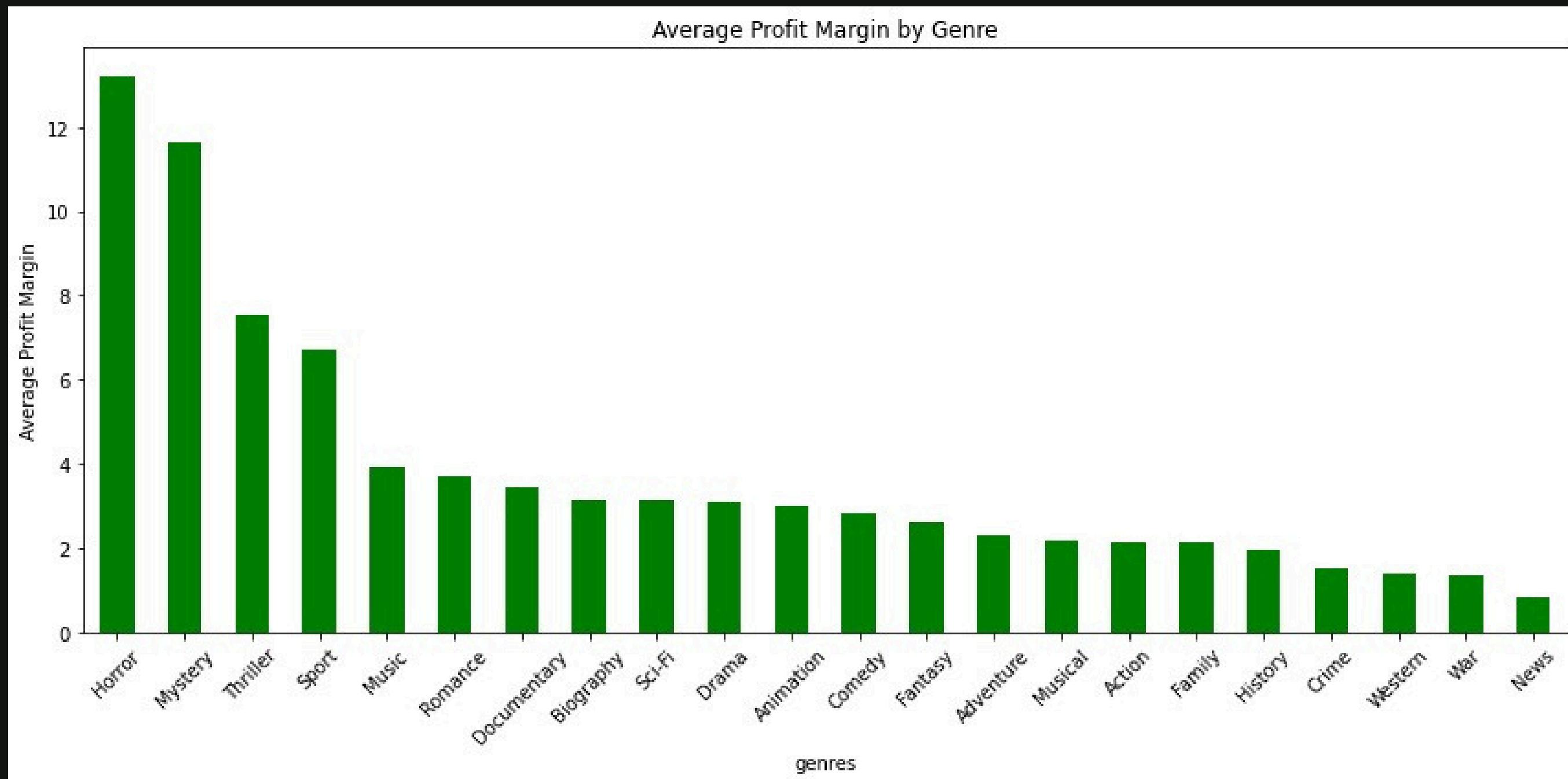
# DATASET PROCESSING

- Standardised title casing and removed punctuation for better joins.
- Resolved genre inconsistencies (e.g., splitting multi-genre values).
- Filtered out unreleased/limited release and incomplete records.
- Final dataset includes:
  - Year, runtime minutes, genres, average rating, release date, production budget, domestic gross, worldwide gross.

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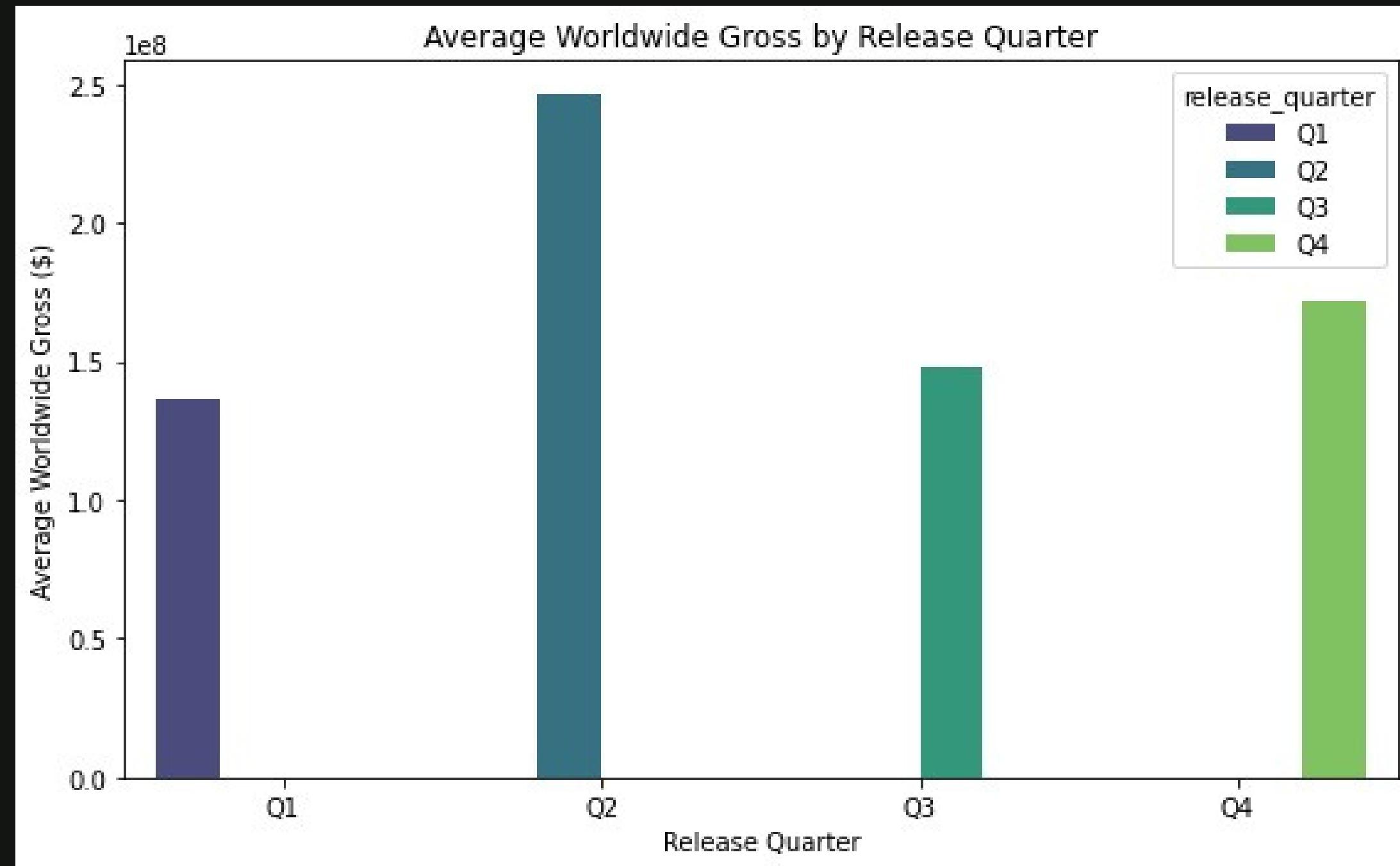
# DATA ANALYSIS

# GENRE PROFITABILITY



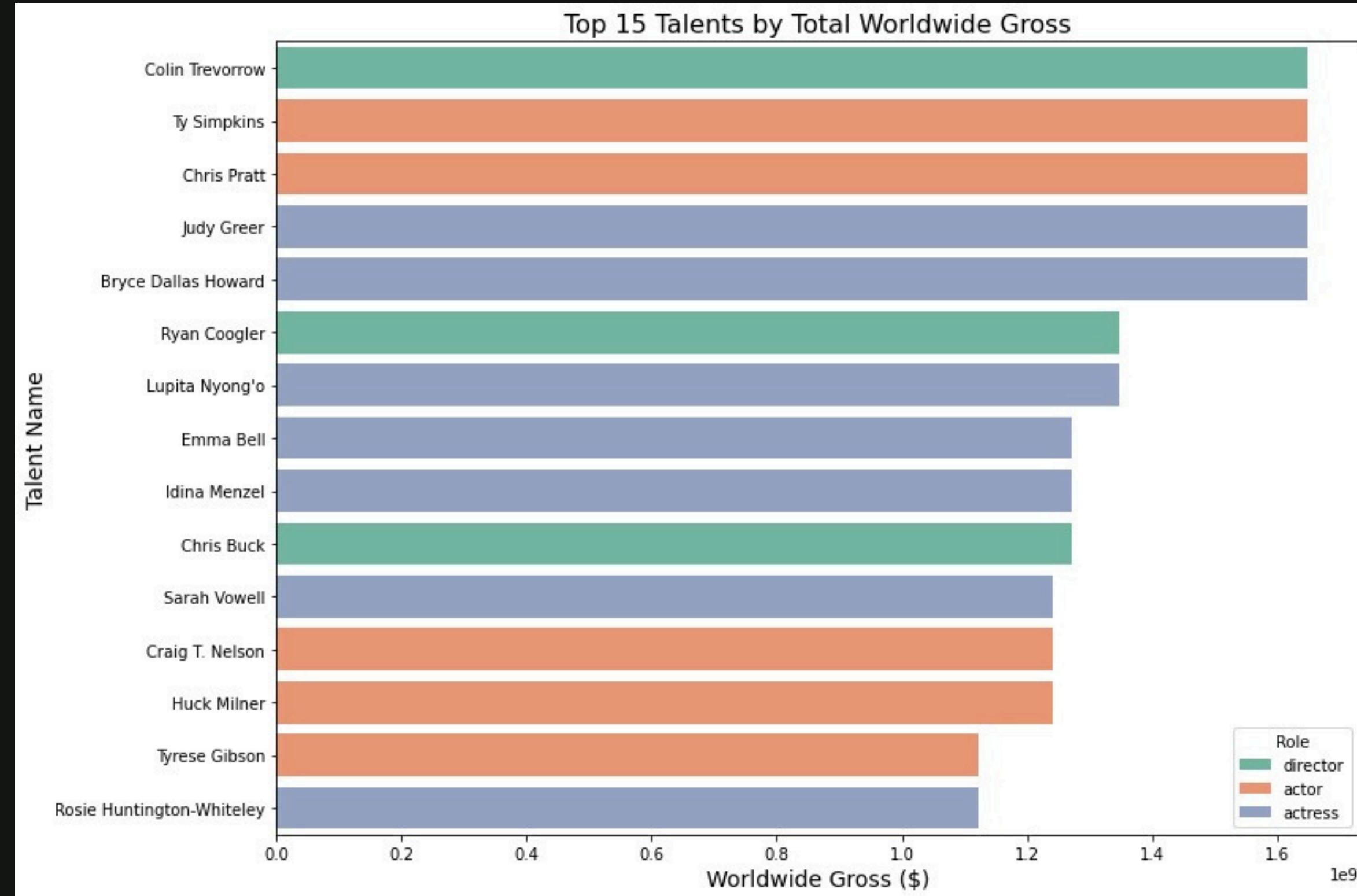
Horror, Animation, and Thriller genres deliver the highest return on investment, thanks to low production costs and broad or loyal audience appeal.

# SEASONAL TRENDS



Insight: Movies released in Q2 and Q4 generate the highest revenue, making them the best seasons for maximizing box office success.

# TALENT IMPACT ON REVENUE



Colin Trevorrow, Ty Simpkins and Judy Greer are the highest grossing director, actor and actress respectively.

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# RECOMMENDATIONS

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1. Make movies in the Horror, Mystery, and Thriller genres because they generate more ticket sales and have higher average profit margins.
2. Release movies in the second quarter of the year (April to June) since the studio is likely to earn ore worldwide gross.
3. Invest in directors, actors and actresses that have starpower and visibility to draw in big audiences.

# NEXT STEPS

- Analyse the effect of genre combinations or subgenres (e.g. Adventure and action, or Horror and comedy) on revenue
- Build a predictive model to forecast box office performance using historical data on genres and release dates
- Include post-theatrical success and streaming revenue to improve insights on movie success
- Incorporate data on age demographics to make movies that target specific audiences



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# THANK YOU, QUESTIONS?

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