DATA SCIENCE FULL TIME 12 PHASE 2 HYBRID

PHASE 2 PROJECT

FILM INDUSTRY DATA ANALYSIS FOR NEW MOVIE STUDIO

BY:

GROUP 1

DATE: 2nd MAY 2025

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BACKGROUND

- This project undertakes an analysis of film-performance metrics aggregated from Box Office Mojo, IMDb, Rotten Tomatoes, The Movie Database, and The Numbers

- The dataset comprises ratings for a broad spectrum of genres viewed worldwide, capturing a representative selection of productions released over years alongside their domestic and international revenue and critical reception
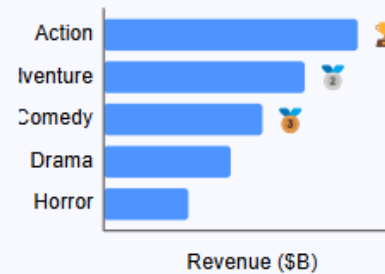
PROBLEM STATEMENT

From major studios, the company has resolved to enter the market by launching a new movie studio.

It currently lacks in-house expertise in film production; therefore, our group is identifying which genres yield the strongest box-office returns.
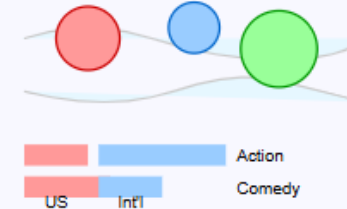
OBJECTIVES

DATA ANALYSIS

Worldwide Gross by Genre
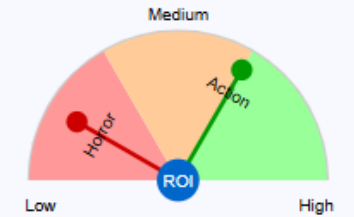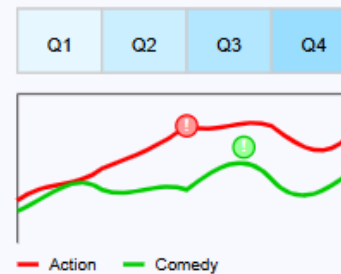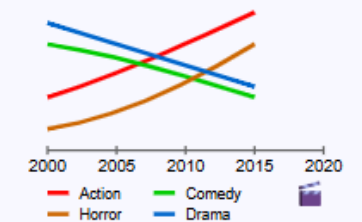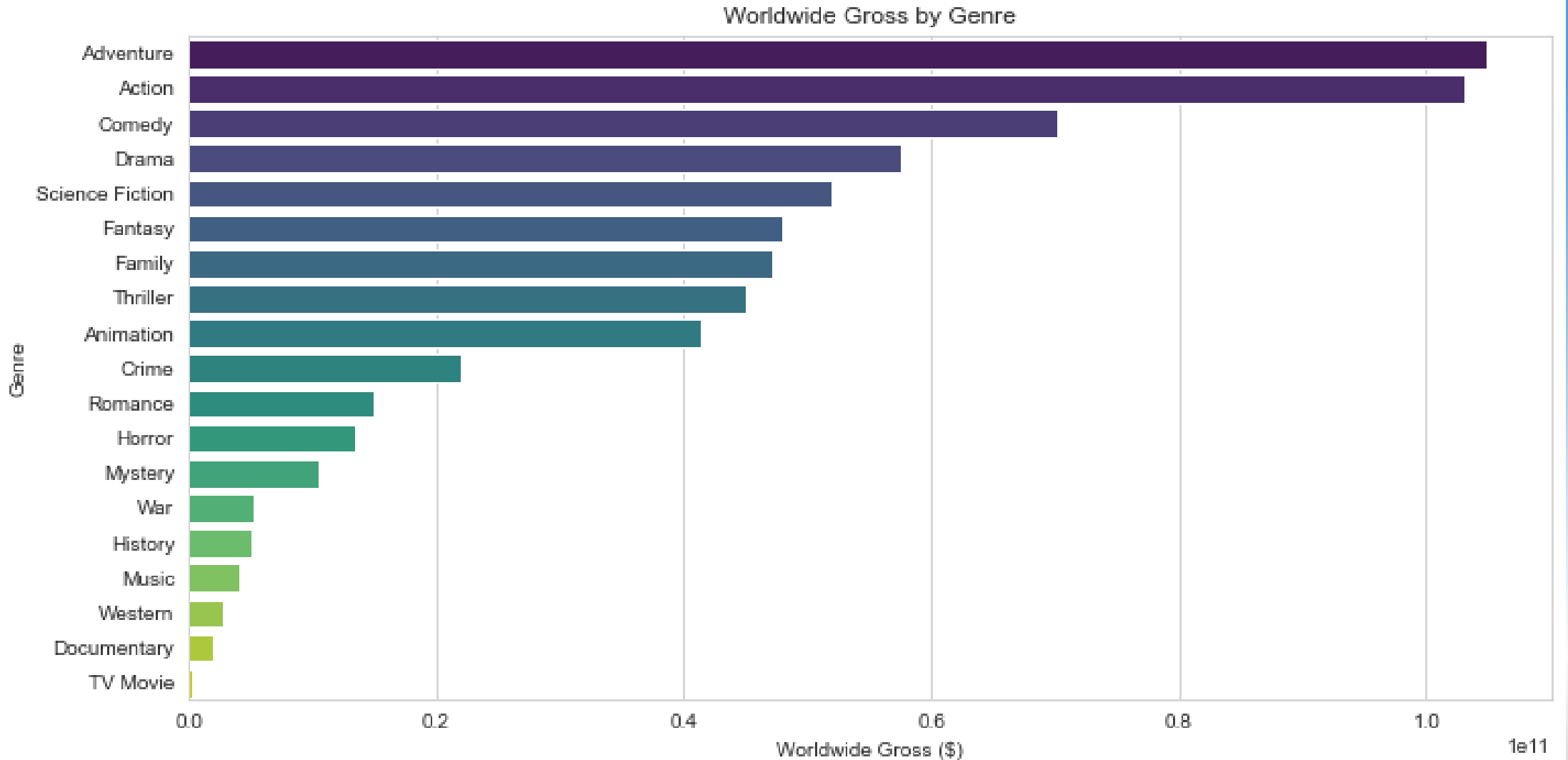
Gross Revenue per Film Genre (Domestic and Foreign)
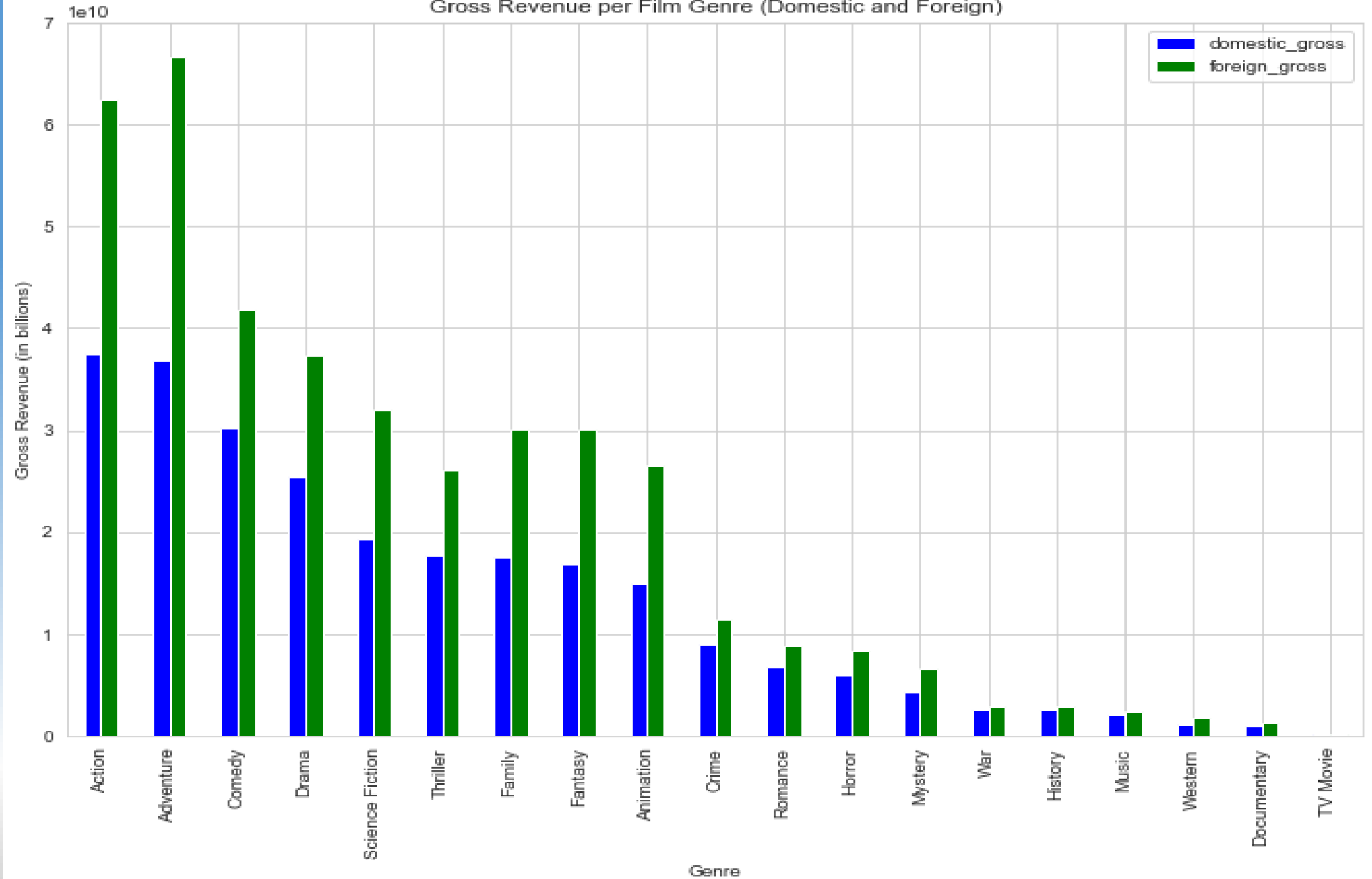
Genres Most Produced Over the Years

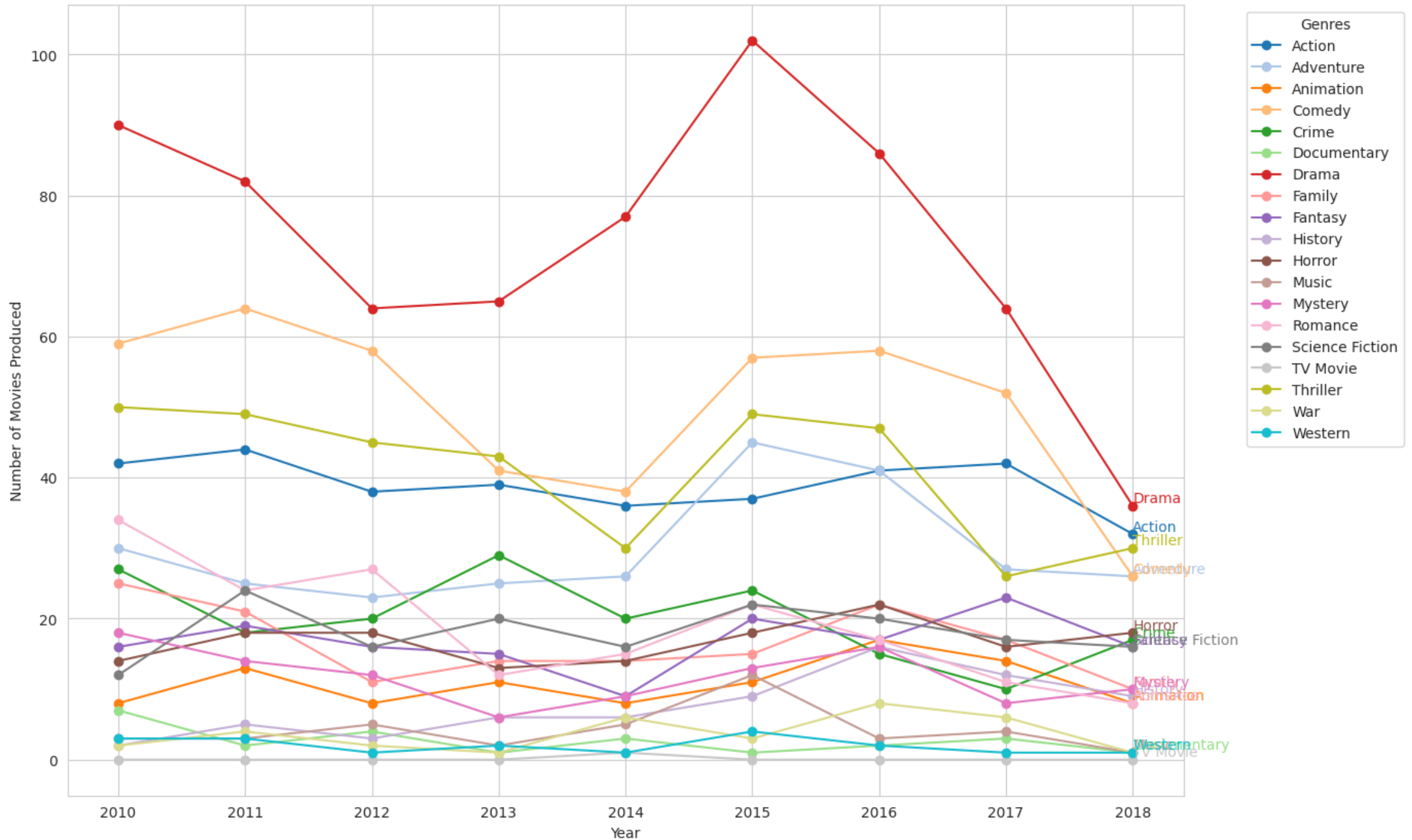| Key Findings	
Top Grossing Genres	**Action, Adventure, Sci-Fi lead global earnings. Foreign > Domestic in blockbusters.**
ROI by Genre	**Horror, Thriller, Comedy have highest ROI. High ROI not tied to gross alone.**
ANOVA: Genre vs Worldwide Gross	**Significant gross differences by genre. Supports genre-specific forecasting.**
Paired t-test: Foreign vs Domestic Revenue	**Foreign revenue > Domestic (statistically significant). Highlights need for global appeal.**
ANOVA: ROI Differences by Genre	**Clear ROI disparities by genre. Low-budget genres often yield higher ROI.**
ANOVA: Release Month vs Gross	**Gross varies by month. Summer (May–July) and Holidays (Nov–Dec) perform best.**
Genre Ratings Analysis (ANOVA)	**Drama, Documentary, History have highest ratings. Critical vs commercial success gap.**
Chi-Square & Time Series: Genre Trends	**Documentary & Horror rising. Western & War declining. Comedy & Action stable.**
Linear Regression (Genre + Year → Gross)	**Low explanatory power ($R^2 \approx 0.17$). More features needed for accurate forecasting.**

RECOMMENDATIONS

1. **Invest in Genres with High ROI:** 🎬 Horror, Thriller, and Comedy yield strong returns.
2. **Strategically Time Releases:** 📅 Target Summer and Winter holidays for big launches.
3. **Expand Predictive Features:** 📊 Use cast, marketing budget, and critic scores.
4. **Tailor International Strategies:** 🌍 Align with foreign audience tastes.
5. **Balance Gross vs ROI:** 💰 Consider budget efficiency, not just gross earnings.

CONCLUSION

In order to gain deeper understanding and succeed in the film industry performance, it is also important to take into consideration some of these following aspects; **impact of actors and directors**, the **marketing & promotion strategies** and **streaming platforms** used.

HAPPY

TO

ANSWER

YOUR

QUESTIONS!!!!

THANK YOU