



PHASE 2 PROJECT



DS-PT10

ROSE GITAU



GROUP MEMBERS



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OVERVIEW



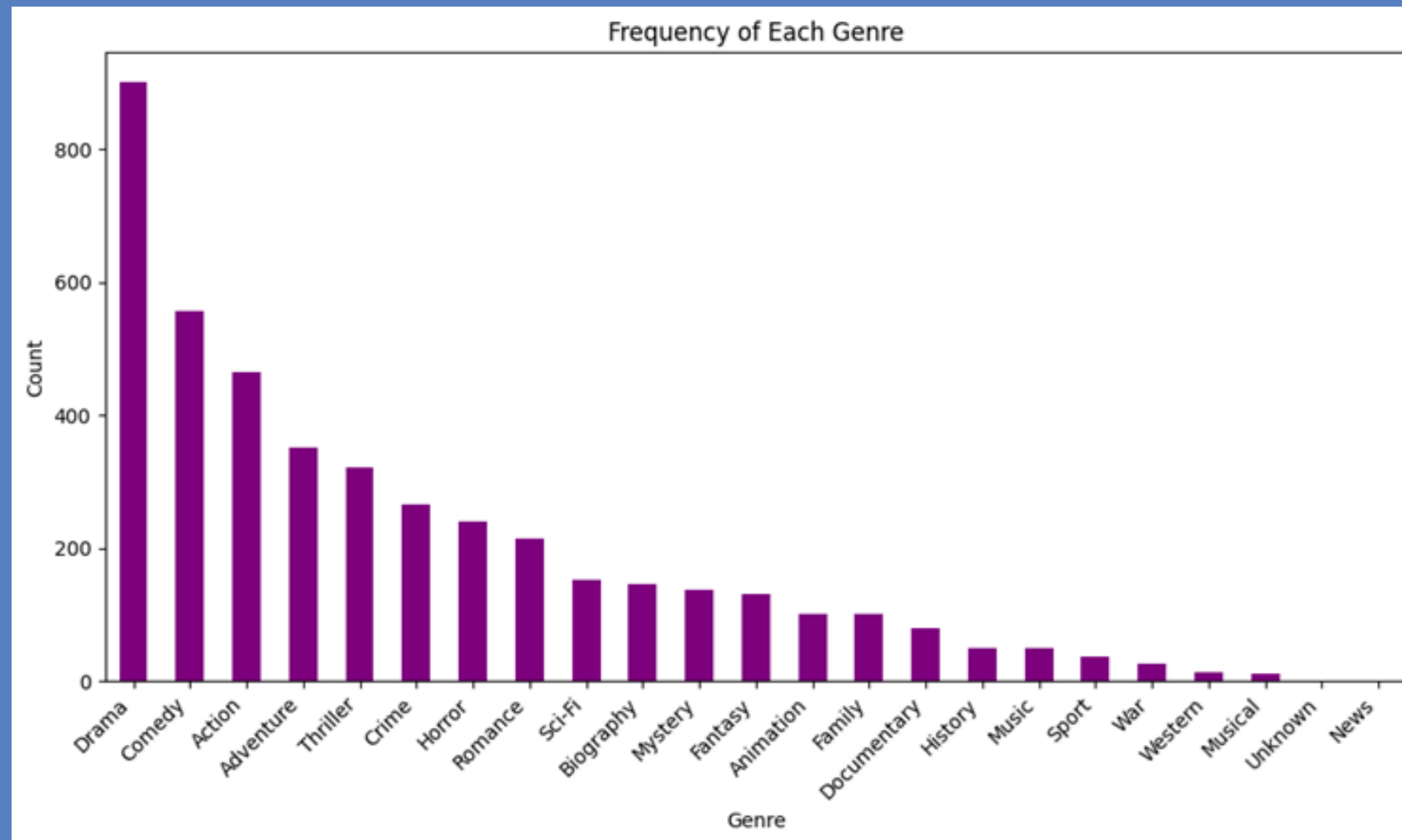
This project aims to shape our film production strategy as we establish a new movie studio. In a rapidly changing entertainment industry, understanding the landscape of successful films is crucial. This analysis will help us strategically create films that are more likely to succeed at the box office, allowing us to maintain a competitive edge .

OBJECTIVES



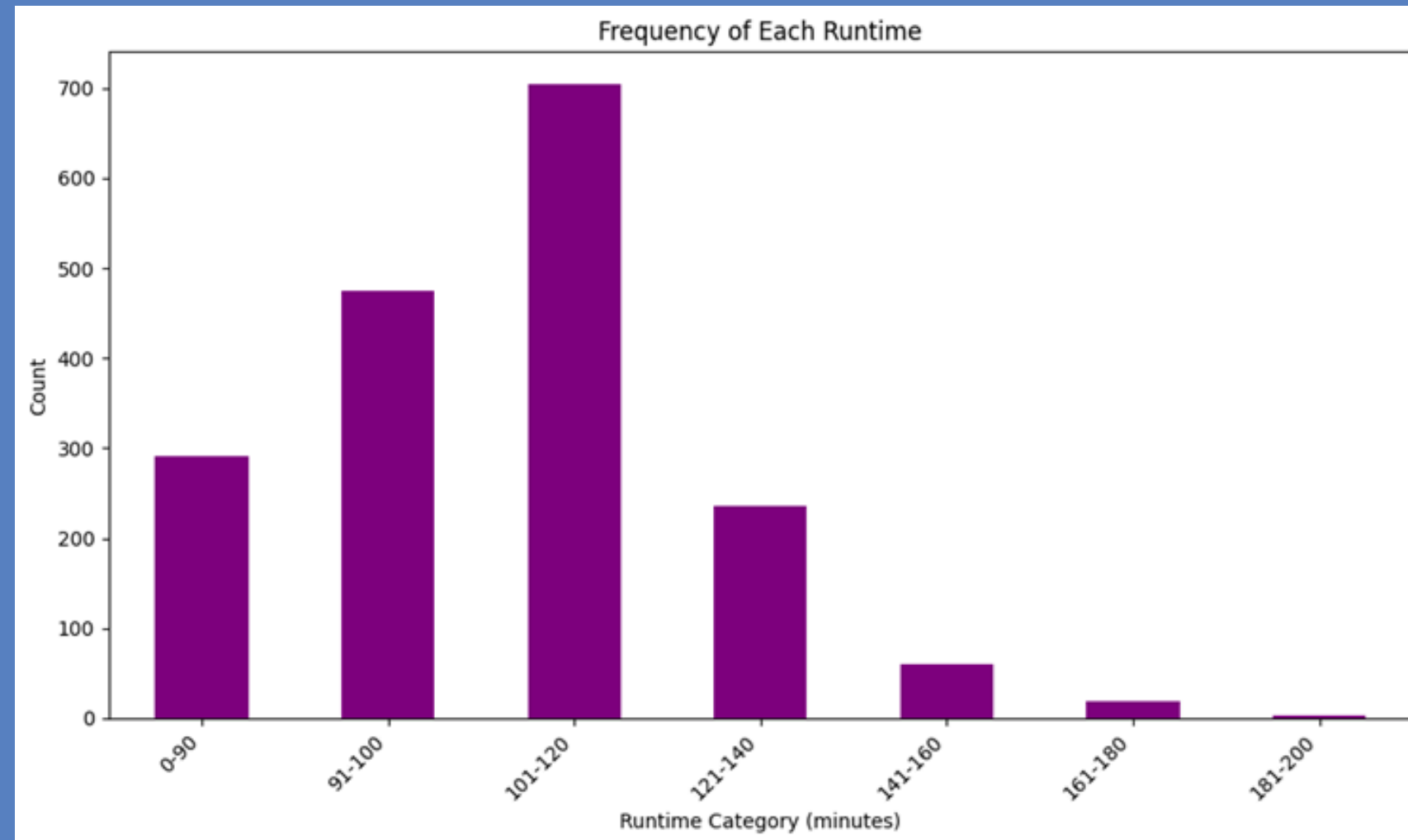
- Identify the top-grossing movie genres to determine which consistently yield high-performing films.
 - Compare production costs with revenue to find the best investment strategies for maximizing returns.
 - Analyze movie ratings and audience preferences to uncover the factors that drive viewer satisfaction.
 - Forecast the most profitable movie genres for the company.
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MOST FREQUENT GENRE



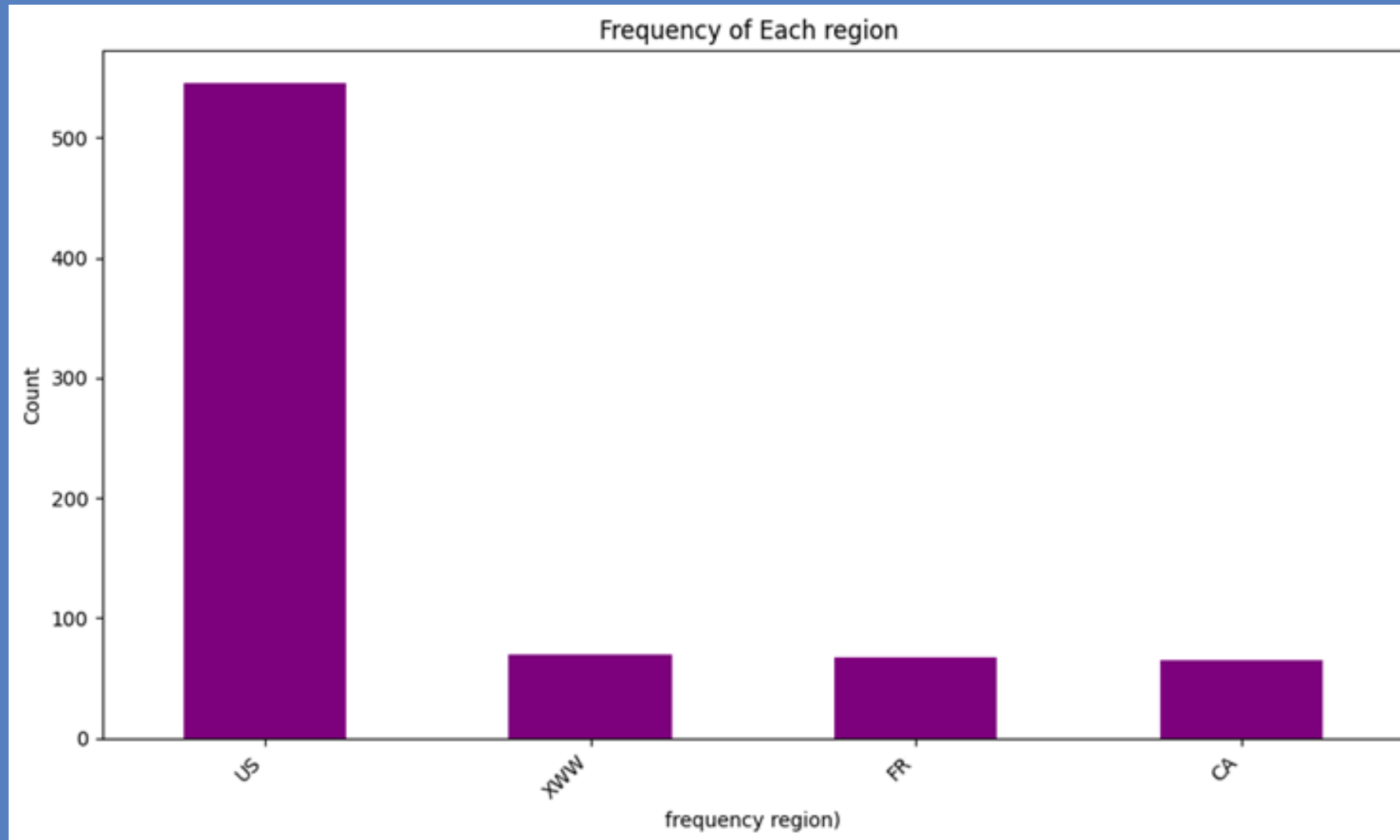
- The most frequent genres, each with over 400 occurrences, are Action, Comedy, and Drama.
- Among these, Comedy is the most frequent with over 800 occurrences.
- The three least frequent genres are News, Musical, and Western, in descending order.
- The high frequency of Action, Comedy, and Drama genres indicates strong market demand and safer investment opportunities, while the low frequency of News, Musical, and Western suggests a need for targeted marketing to attract niche audiences.

MOST FREQUENT RUNTIME



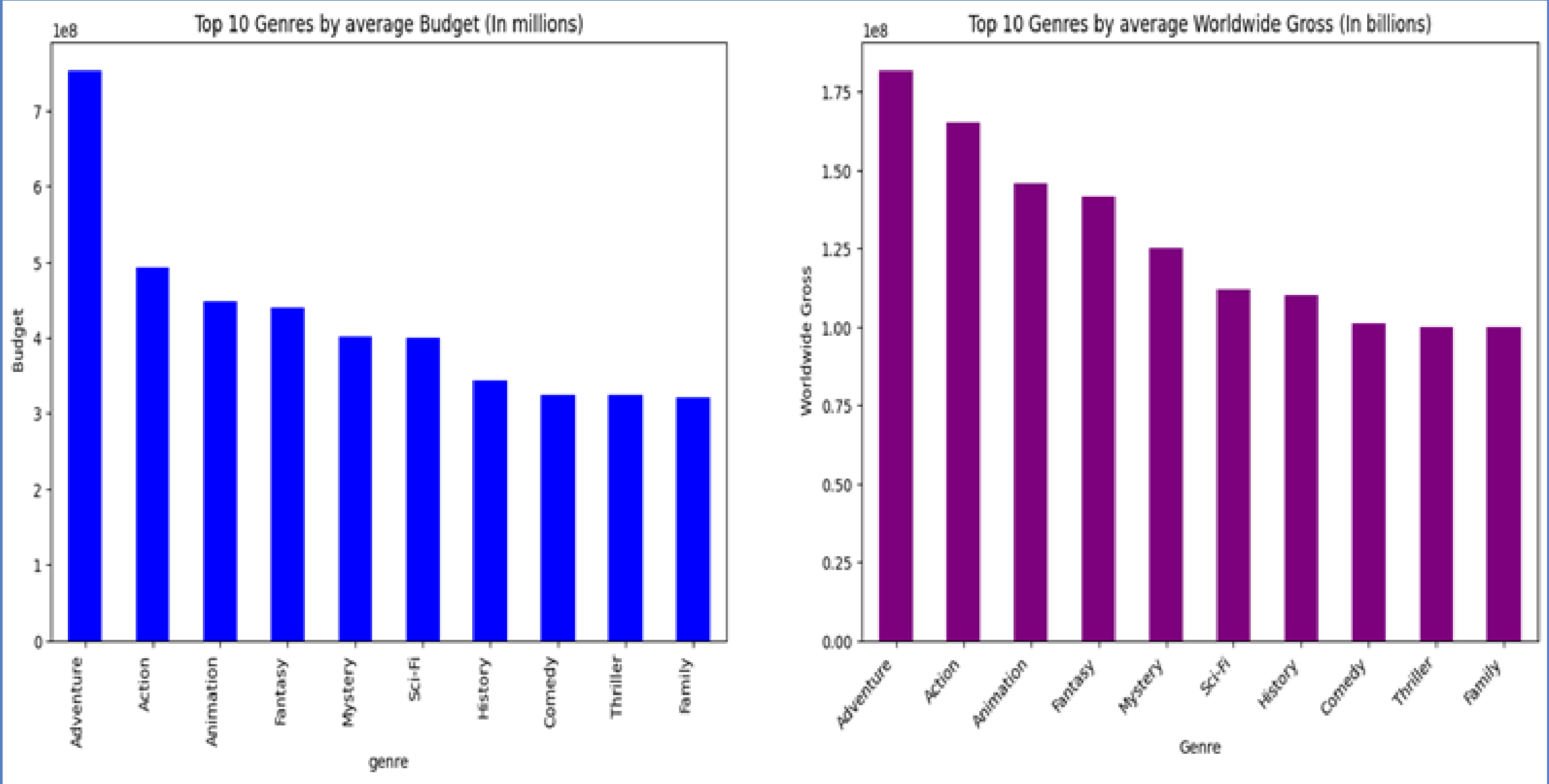
- Popular Runtime: Movies with a runtime of 101-120 minutes have the highest frequency at approximately 700, indicating strong audience preference.
- Longer Movies Less Frequent: Films with runtimes of 141-160, 161-180, and 181-200 minutes each have frequencies below 100.
- Audience Preference: The data suggests audiences generally prefer shorter movies over extended viewing times.

MOST FREQUENT REGION



- High Frequency Region: The USA has the highest frequency with over 500 occurrences, indicating it is the most prominent region for movies.
- Low Frequency Regions: France and Canada have the lowest frequencies, each with below 100 occurrences.
- Viewer Preference: The data suggests that most viewers favor movies from the USA over those from France and Canada.

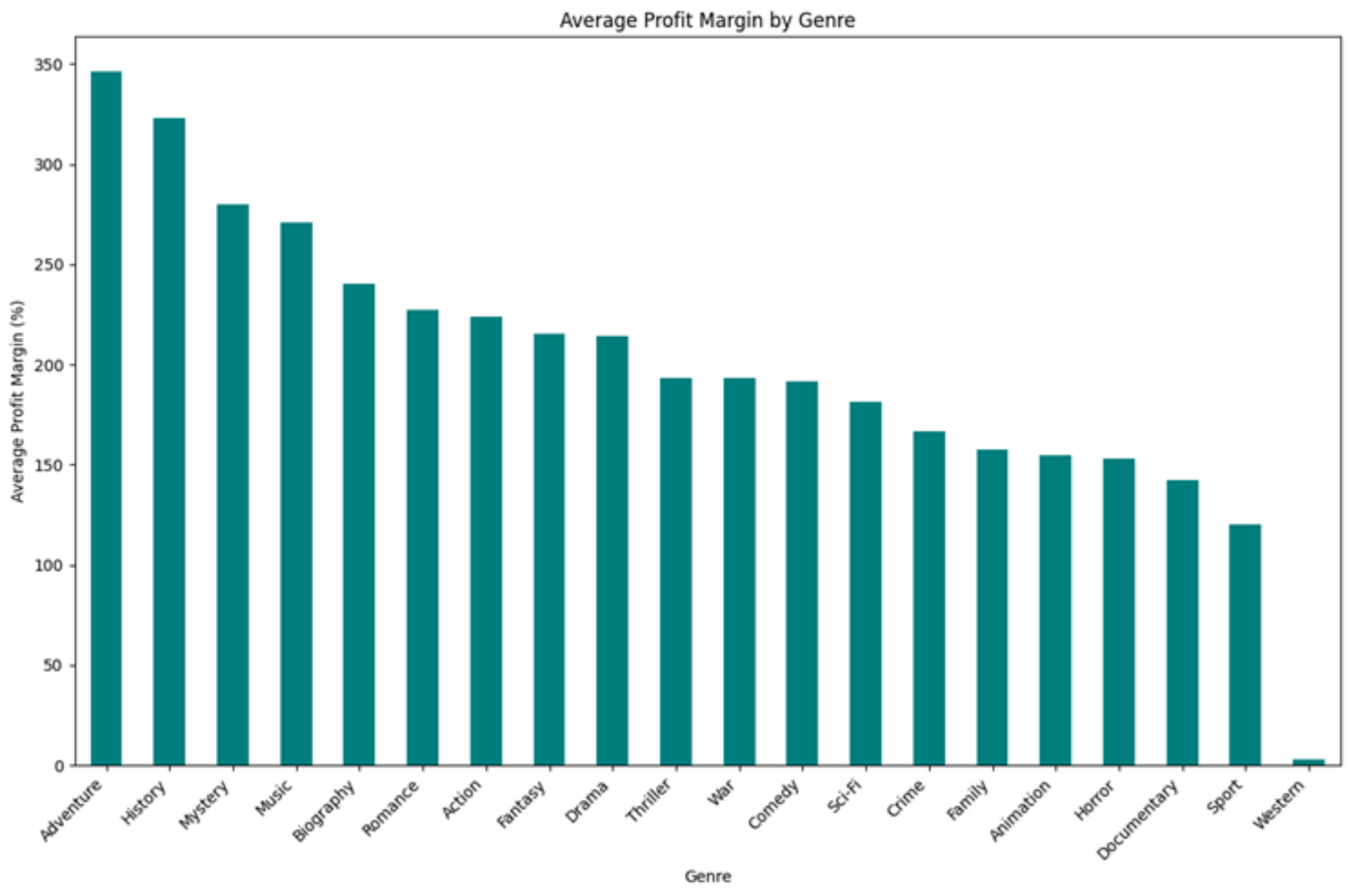
TOP 10 GENRES VS BUDGET/WORLDWIDE GROSS



● Adventure, Action and Animation: Leads in both worldwide gross and budget, indicating it generates the highest revenue and requires significant investment among the top 10 genres.

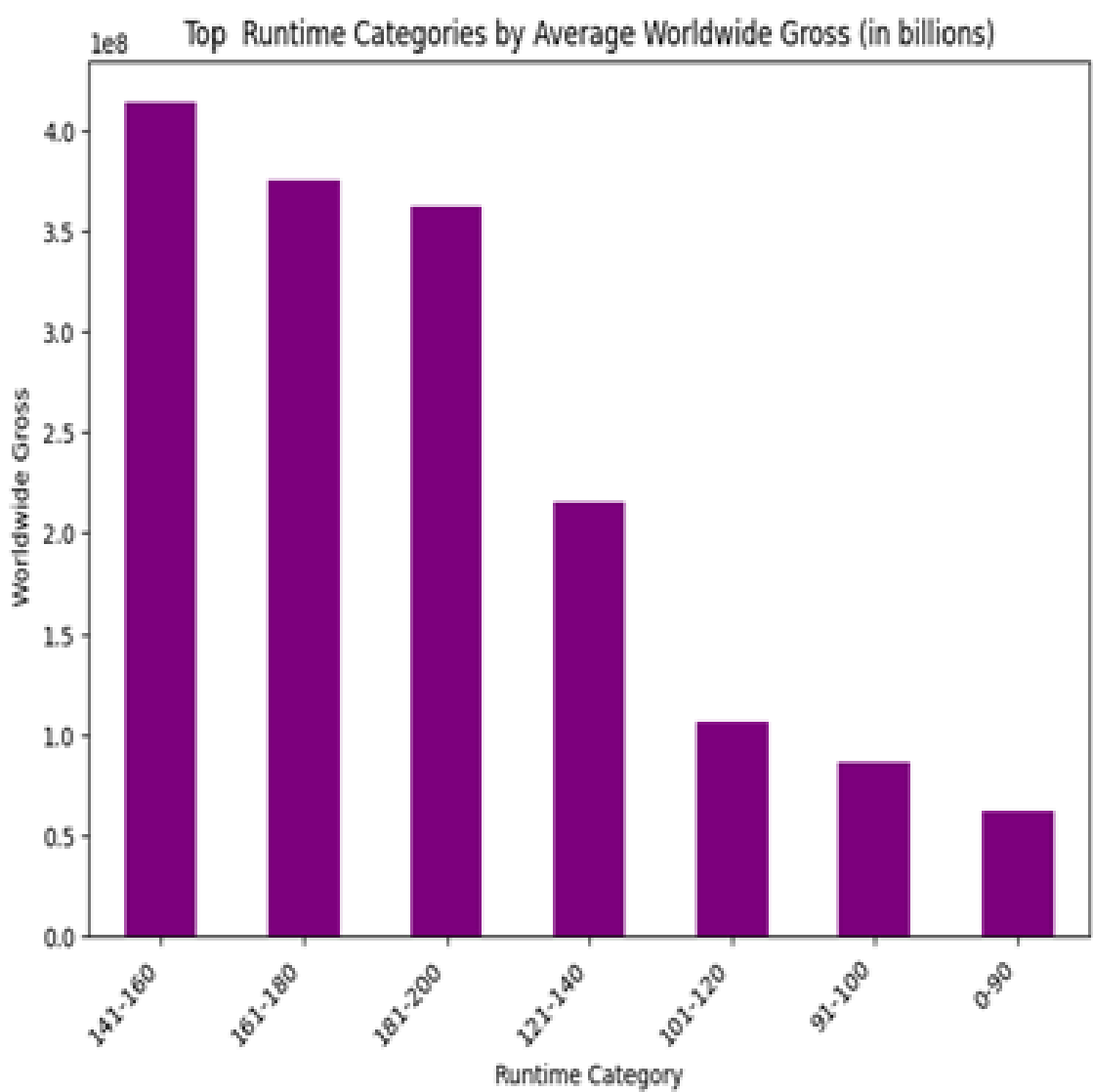
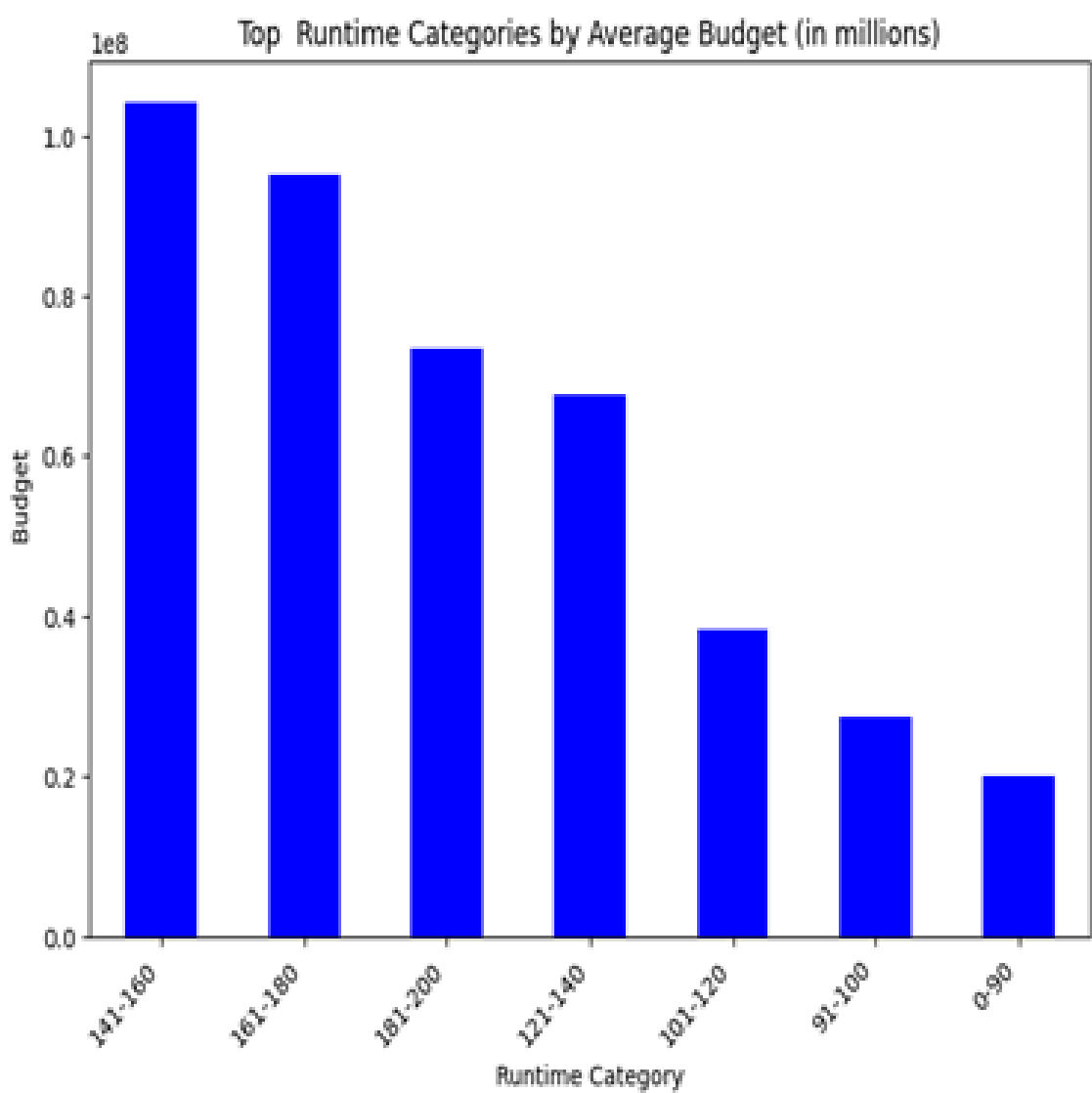
● Comedy, Thriller, and Family: Rank lowest in worldwide gross and budget, suggesting these genres may face challenges in achieving high revenue and require fewer resources for production.

AVERAGE PROFIT MARGIN FOR EACH GENRE



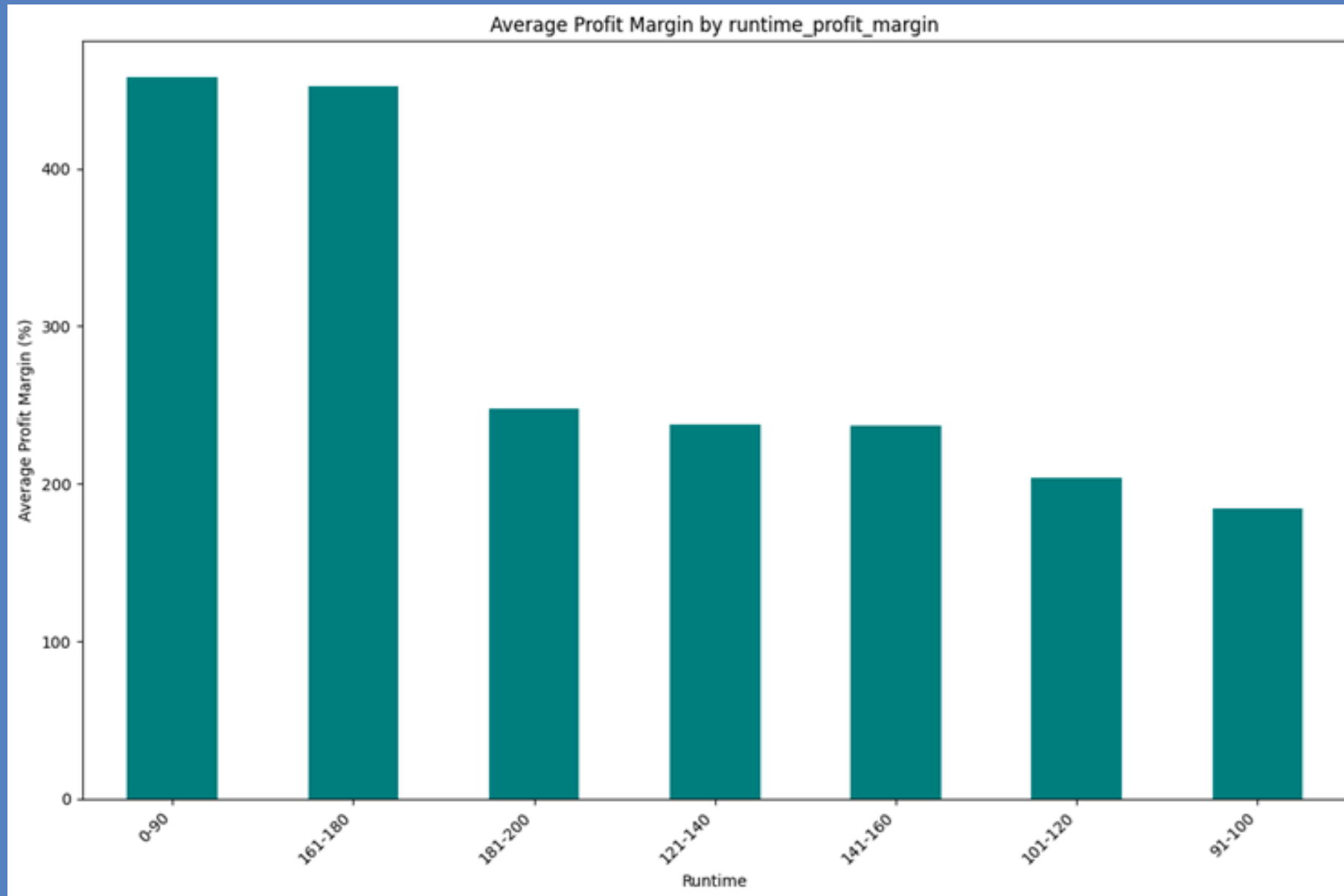
- High-Profit Genres: Investing in Adventure, History, Mystery, and Music genres is likely to yield higher returns, with Adventure being the most profitable.
- Low-Profit Genre: Westerns tend to have lower profitability, indicating a potential riskier investment.
- Strategic Focus: To maximize profit margins, the production strategy should prioritize high-margin genres while carefully evaluating the potential and marketing strategies for Westerns.

TOP RUNTIME VS BUDGET /WORLDWIDE GROSS



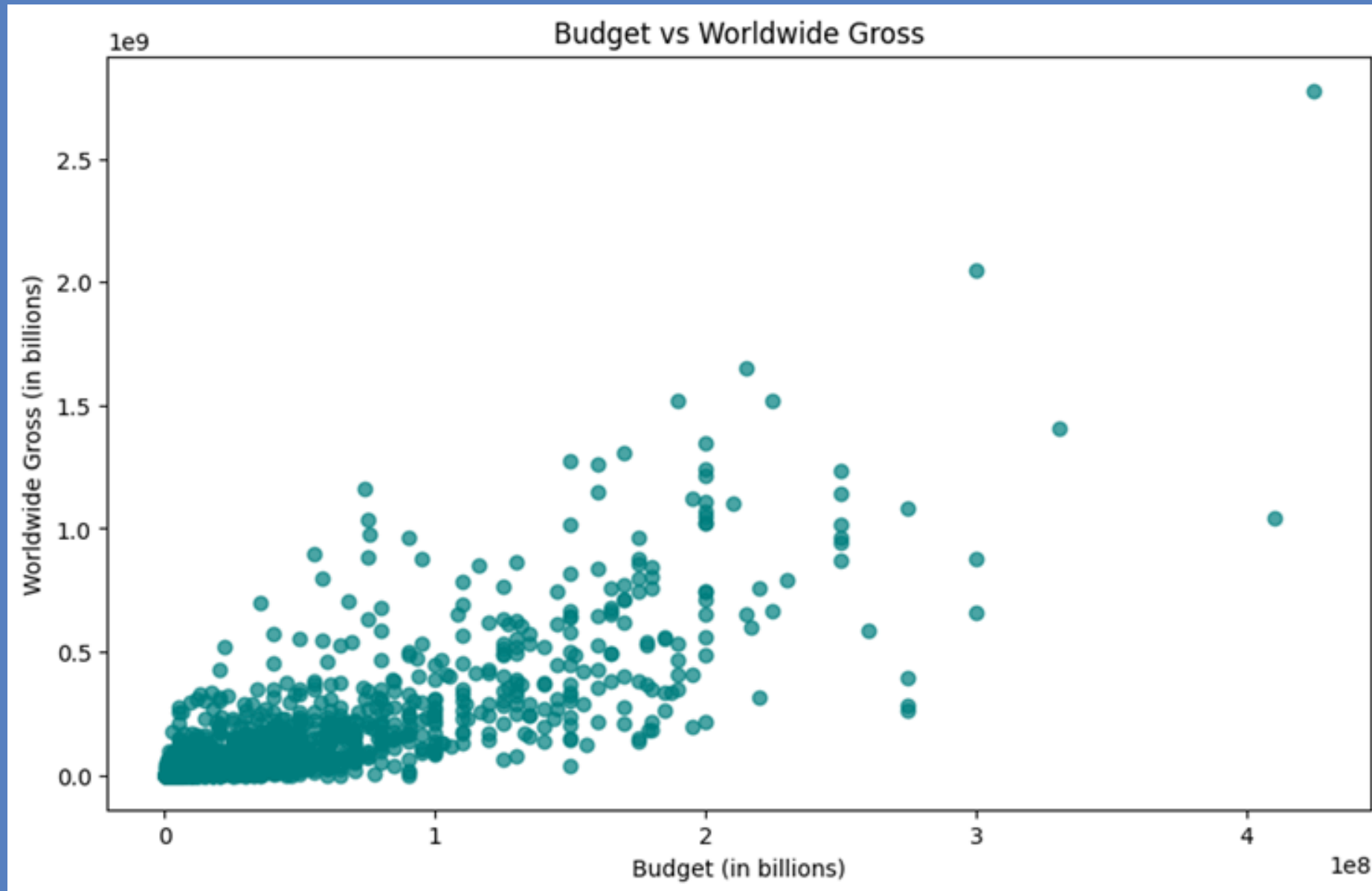
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AVERAGE PROFIT MARGIN BY RUNTIME



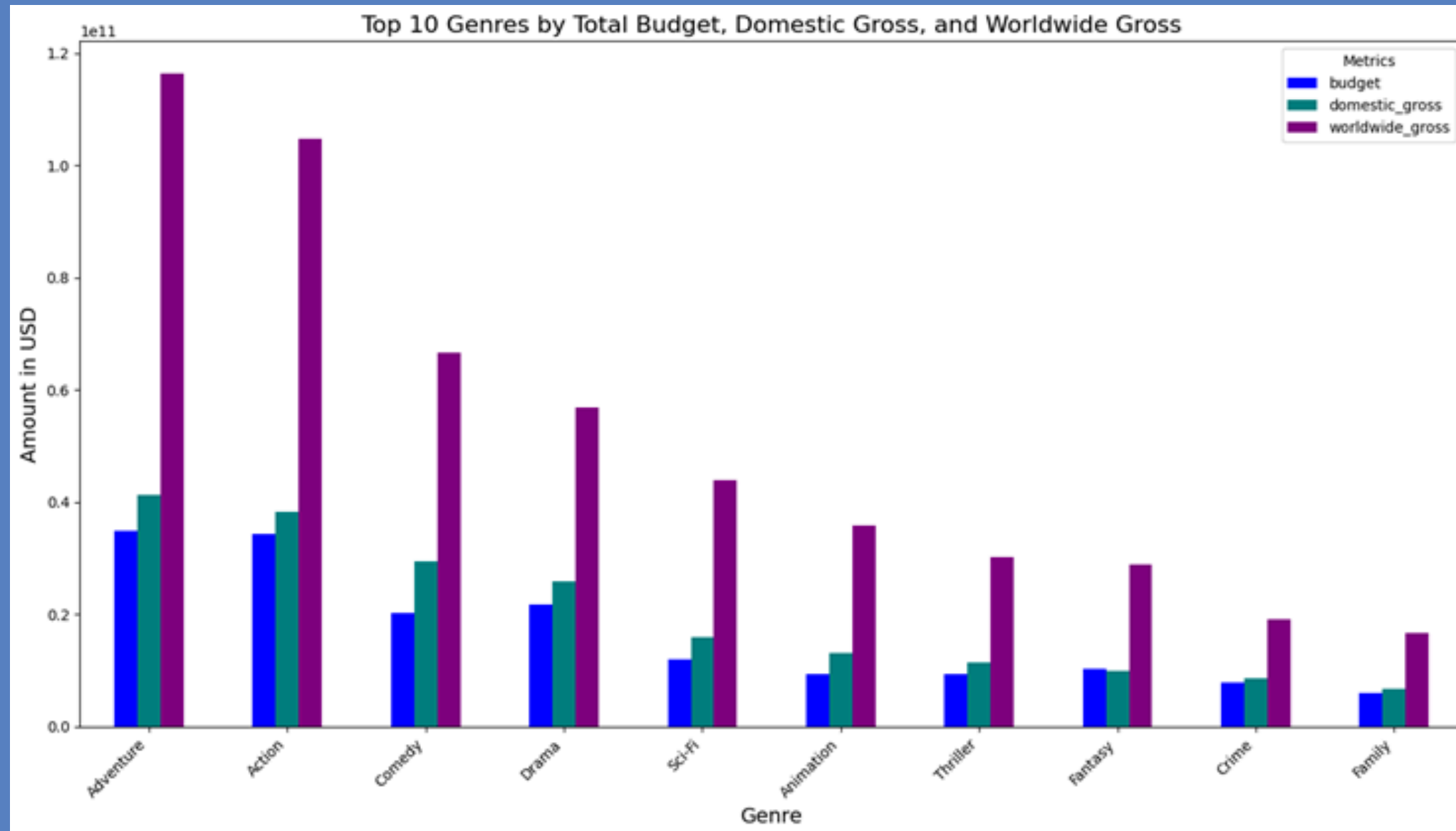
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- Longer Movies Less Frequent: Films with runtimes of 141-160, 161-180, and 181-200 minutes each have frequencies below 100.
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BUDGET VS WORLDWIDE GROSS



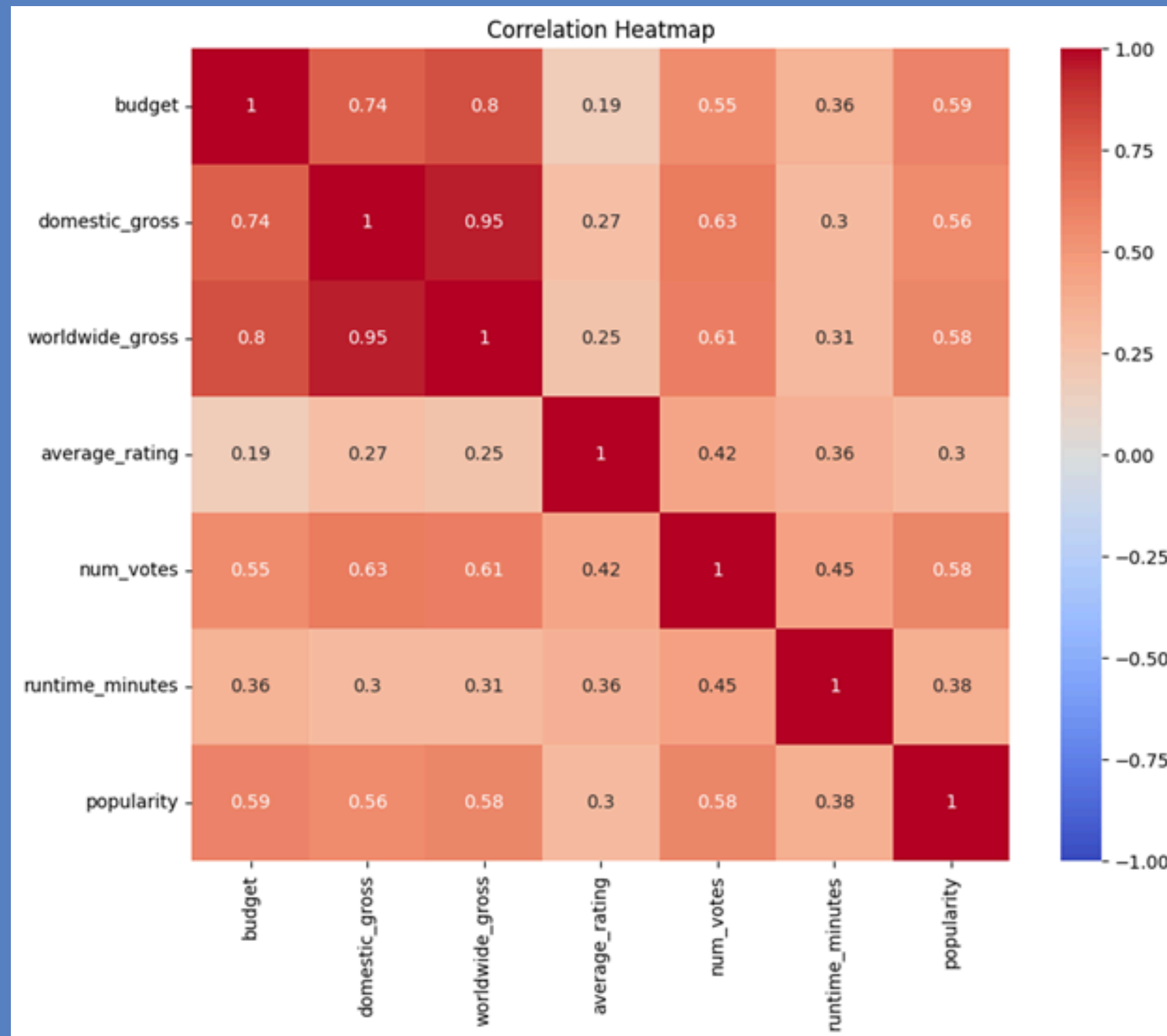
● General Trend: There is a positive correlation between budget and worldwide gross. This suggests that movies with higher budgets tend to earn more revenue.

TOP 10 GENRES BY TOTAL BUDGET DOMESTIC GROSS AND WORLDWIDE GROSS



- Highest: Adventure ranks highest in domestic gross, worldwide gross, and budget, followed by Action in second place.
- Lowest: Family ranks lowest among the top 10 genres in these metrics.
- Implication: Prioritize investment in Adventure and Action genres for better financial returns, while exploring ways to enhance the performance of Family films.

CORRELATION HEAT MAP



● Budget and worldwide_gross has correlation of 0.802889 This indicates a strong positive correlation, meaning higher budgets tend to be associated with higher worldwide gross.

● Domestic_gross and worldwide_gross also has strong correlation of 0.947102 which shows very high correlation suggests that movies that perform well domestically also perform well worldwide.

● num_votes and popularity also has moderate correlation of 0.584154 indicating a strong positive correlation, suggesting that movies with more votes tend to be more popular.

● Budget and domestic_gross has a high correlation of 0.739963

● Finally budget and popularity has moderate correlation of 0.591660 showcasing a higher-budget movies tend to be more popular.

● On the other side average_rating has lower correlations with most other variables, indicating that the average rating is less influenced by budget, gross, etc.

CONCLUSIONS



- 1. Increase in budget leads to an increase in worldwide gross
- 2. Movies with a runtime between 141 to 180 have the highest budget and the highest worldwide gross
- 3. Adventure movies have the highest budget, highest gross and the highest profit margin followed by Action movies
- 4. Most of the highest grossing movies are made in the USA
- 5. Movies with a low runtime have the highest gross margin due to the fact they are cheap to produce



RECOMMENDATIONS

- 1. High-Budget Adventure and Action Movies

Adventure movies, followed by Action movies, have demonstrated the highest budgets, gross earnings, and profit margins. Investing in high-budget productions within these genres can capitalize on their established financial success and popularity.

- 2. Mid to High Budget Movies with a Runtime of 141 to 180 Minutes

Movies within the 141 to 180-minute runtime bracket show the highest budgets and worldwide gross. These films often offer expansive storytelling that can attract larger audiences and generate significant revenue.

- 3. Low-Budget, Short Runtime Films

Films with shorter runtimes have shown the highest gross margins due to lower production costs. These movies can yield high profitability by minimizing expenses while still appealing to specific audience segments.

- 4. Location

Since most high-grossing movies are made in the USA, ensuring production in or collaboration with studios in the USA can further enhance the chances of success.

Q AND A

THANK
YOU

