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Project: Visualizing Movie Data

Complete each section. When you are ready, save your file as a PDF document and submit it here.

Step 1: Data Cleanup and Attribute Selection

- Clean up any missing information and choose the most important attributes you will explore further in your visualizations.
- List out the attributes (or variables) you plan to dive further with your visualizations. You should explore no more than 8 attributes.
  Here is a list of the attributes I plan to dive further into:
    - cast
    - keywords
    - genres
    - production_companies
    - release_year
- Please refer back to the Data Cleanup course to help you clean up your data.

Step 2: Tableau Visualizations

- Please make sure you follow the rubric and include Tableau Dashboards, Stories, and the appropriate visualizations (small multiples, scatter plot, bar chart, etc..) your reviewer expects your visualizations to contain. Remember: You need one Dashboard for every question (Q1-Q4) and in addition, you also need one Story, pertaining to a question of your choosing.
- Attach your visualizations as Tableau Workbooks in a zip file along with this report.

IMPORTANT: Please upload the workbooks to **Tableau Public** to allow reviewers to access your workbooks. Note that simply saving your file as a ".twbx" is not enough to allow all reviewers to access. Instructions on how to do this.

Step 3: Questions

- Answer the following questions. Refer to your online visualizations to back up your answers:
    - **Question 1:** How have movie genres changed over time?
    - With few exceptions, movie genres have had bigger budgets and earned more revenue over the years (See dashboard "Q1" chart "Revenue VS Budget - All Genres") and (See dashboard "Q1" chart "Revenue VS Budget - 'Genre'"). Initially, genres began increasing revenue while keeping budgets fixed. Studios seemed to have realised that if they put spent more on budgets, they could earn

even more revenues and this is borne out by the scatter plots. The stacked area charts further demonstrate that the entire movie pie has grown while illustrating that some genres, like Action, Comedy, and Drama, have been perennial dominators of the pie (See dashboard "Q1" chart "Budget Share by Genre") and (See dashboard "Q1" chart "Revenue Share by Genre").

- **Question 2:** How do the attributes differ between Universal Pictures and Paramount Pictures?
- Both production companies have been similarly popular and have made roughly the same amount of adjusted revenue up until roughly 10 – 15 years ago. Universal Pictures began to see an increase in popularity over Paramount Pictures (See dashboard "Q2" chart "Running Sum of Popularity"). This popularity increase has translated to an increase in adjusted revenue (See dashboard "Q2" chart "Running Sum of Adjusted Revenue"). Further analysis of the small multiples chart shows that Universal Pictures makes more profit in most years, and much more like in years 2012 and 2015 (See dashboard "Q2" chart "Yearly Profit By Production Company - Past 10 Years").
- **Question 3:** How have movies based on novels performed relative to movies not based on novels?
- Movies based on novels have seen a relative spike in adjusted revenue and profit in the past 20 years (See dashboard "Q3" chart "Revenue and Profit"). They have also seen a threefold popularity gain in the past 5 years (See dashboard "Q3" chart "Popularity"). However, their performance is tame compared to movies not based on novels. Movies not based on novels have seen a rise in popularity since the 70s and have seen a huge spike in the past 5 years. These movies have also made steadily climbing profits (See dashboard "Q3" chart "Revenue and Profit - Based On Novels") and (See dashboard "Q3" chart "Revenue and Profit - Not Based On Novels").

- What is your additional question that you proposed? What is the answer? How did you come up with this question?
  - **Question 4:** Which actors perform best?
  - On the list of most popular actors, Harrison Ford stands out in the top 5 (See dashboard "Q4" chart "Popularity"). He is the face of icons like Han Solo and Indiana Jones. Though he didn't capture as many votes, (See dashboard "Q4" chart "Votes") the dollar votes tell a different story. Harrison Ford has the highest profit ratio (See dashboard "Q4" chart "Profit Ratio"). Harrison Ford also brings in the most profit per movie (See dashboard "Q4" chart "Profit Per Movie"). When it comes to money, Harrison Ford is box office gold.
  - Actors are a significant portion of the budget of a movie and they can bring in significant revenue. I wanted to explore which actors would be the most popular and bring in the most money. That's why I created a story to find out which actors perform best (See story "Q4 Story").