

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.
 1. *Adjusted Budget*
 2. *Adjusted Revenue*
 3. *Director*
 4. *Genres*
 5. *Profitability/Flops*
 6. *Popularity*
 7. *Release Date/Years Since Released*
 8. *Company*
- 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?

https://public.tableau.com/shared/46SQTFSMX?:display_count=yes

Overall, since the 1960s, the number of movies that have been produced has increased and with that several genres have grown more than others, Drama, Comedy, Thriller and Action. However genres that still have not been produced in great number are History, Westerns and Documentaries.

Budgets for films have grown as well. Adventure movies are an example of this if we look at the median adjusted budget. In the 70s and 80s the budget was around a median of 40 million dollars and today the median adjusted budget is around 100 million. Meanwhile other genres have a generally consistent budget, an example is with comedies. Comedies have had a consistent budget around 30 million.

In regards to popularity, the median popularity has been consistent for a majority of films. Recently, Science fiction has seen a surge in popularity since 2012. Action and Adventure movies have also seen an increase in popularity. Animations films have held the about the same popularity, with an exception in the early 90s when a lot of popular Disney animated films came out.

In regards to flops, movies that made less revenue than their budget, there seem to be more flops associated with dramas, thrillers and comedies recently. The growth of these flops is driven by the fact that more of these types of movies are made. Proportionality, it appears that drama had more flops than action movies.

- **Question 2:** How do the attributes differ between Universal Pictures and Paramount Pictures?

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Overall, it appears that the companies are quite similar. Universal has made more movies than Paramount and that has stayed consistent through the years. However, Paramount has made more dramas than Universal. Paramount has a median adjusted budget that is higher than Universal. The median adjusted revenues are the same, however, if you look the average, using the histogram, you would notice that universal would have a higher average because they have more movies that make around 100 million. They also have some higher outliers such as Furious 7 and Jurassic World as seen on the scatter.

- **Question 3:** How have movies based on novels performed relative to movies not based on novels?

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Overall, it appears novel based movies do better than non-novel based movies from a profitability perspective. The median profitability for Novel based is 42 million and non-based is 26 million. From a genre perspective, Action novel based films are more profitable than their counterparts while Not based on a novel animation genre has more profitability than novel based animations.

- What is your additional question that you proposed? What is the answer? How did you come up with this question?

https://public.tableau.com/shared/3HBS55Z54?:display_count=yes

My question was "Should we hire Nicolas Cage to be in our film?" The answer was that yes, we should hire Nicolas Cage to be in our film only if the movie is in the fantasy, adventure, action genre and it has a big enough budget to support the film. There is then a good chance the movie will beat the industry average for profitability.

Our client wants to make sure that the new movie is successful and so we want an actor that will help make sure the movie is successful. I wanted to assess if Nicolas Cage could help our client be successful.