Project: Visualizing Movie Data

Step 1: Data Clean-up and Attribute Selection

Data cleaning was performed and the following attributes were chosen for further analysis:
- Year:
- Production Company:
- Popularity
- Based on Novel
- Genre
- Profitability based on
    - Budget Adj, and
    - Revenue Adj

Step 2: Tableau Visualizations

https://public.tableau.com/views/P3-Q1_2/P3-Q1?:embed=y&:display_count=yes

https://public.tableau.com/views/P3-Q2_1/P3-Q2?:embed=y&:display_count=yes

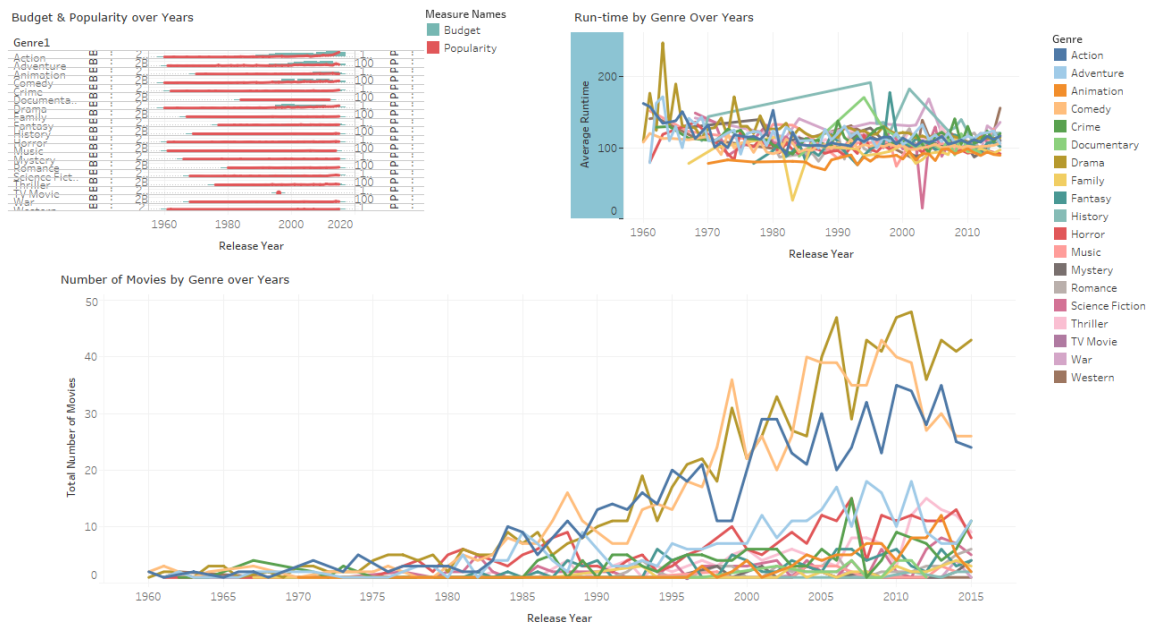https://public.tableau.com/views/P3-Q3_1/P3-Q3?:embed=y&:display_count=yes

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

Step 3: Questions

- Answer the following questions. Refer to your online visualizations to back up your answers:
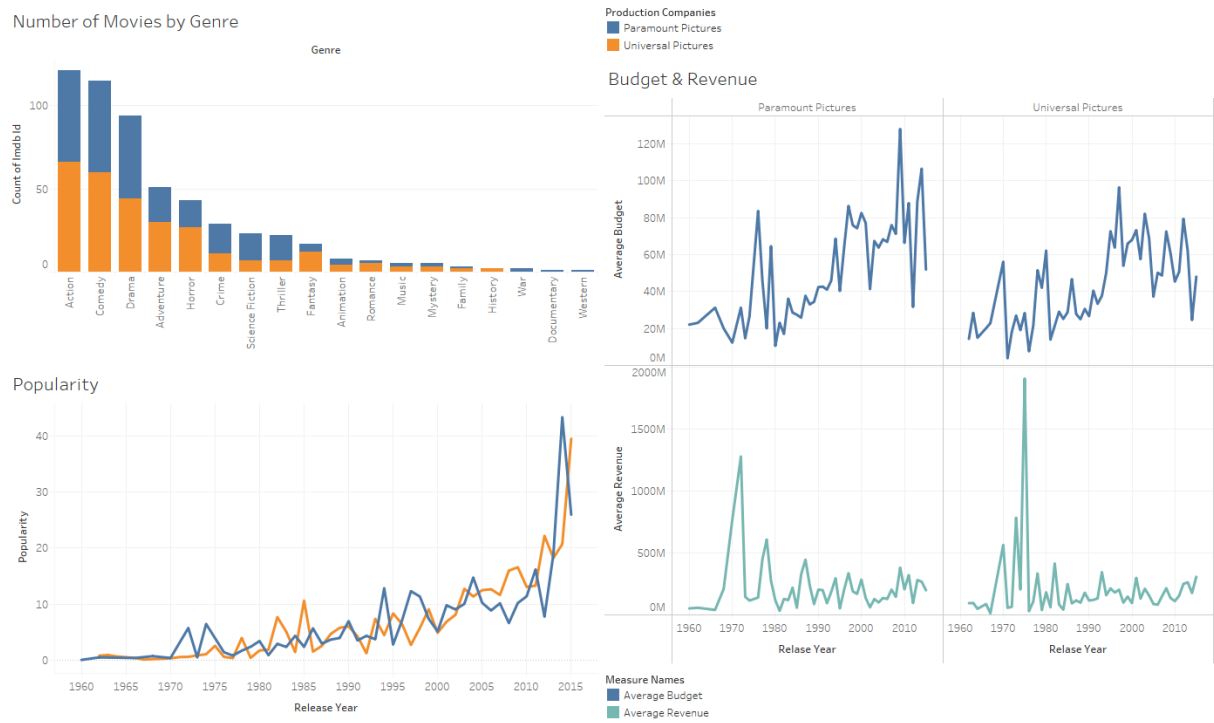 - **Question 1:** How have movie genres changed over time?

    We can see from the first chart that the Movie budgets across most of the Genres have increased and likewise the Popularity as well. However, we can also notice that Budget and popularity for few Genres are kind of same throughout (E.g.., Music, Mystery, etc.,). The next thing we can observe from the next chart is that the Average Run time of Movies across Genres have considerably reduced. From the last chart, we can see the number of movies released over the years have increased across the Genres. Again, there are some exceptions to it like the 'Western' Genre movies.

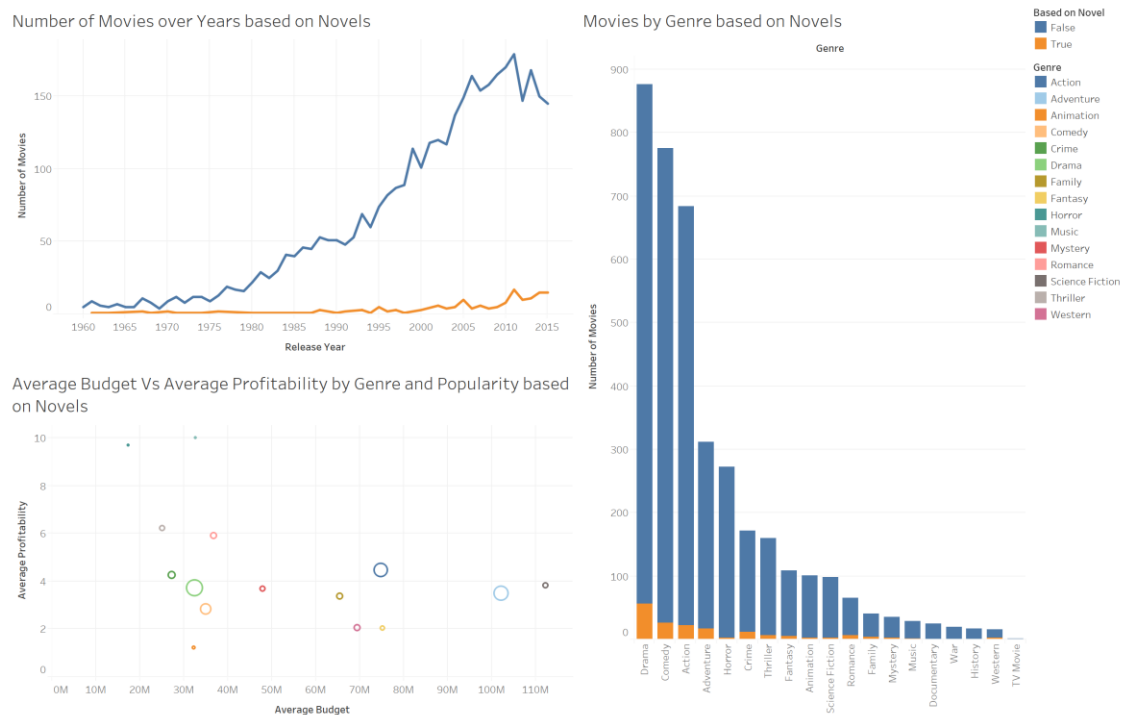Q1. How have movie genres changed over time?

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

We can see from the first chart, the number of movies produced across different genres by the two production companies. We can also see the Universal Pictures have produced more movies in most of the Genres than Paramount Pictures. However, we can see that Paramount Pictures have produced more movies in Crime, Science Fiction and Thriller Genres. Movie Popularity from the Production Companies vary from Time to Time. For example, more movies from Universal Pictures were popular in 1985 but it was vice-versa in 1994. We can also a significant difference in the Average Budget spent and Average Revenue earned over the years between the two companies.

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

  At the outset, there has been an increase in the production of movies based on Novels compared to the earlier times. For example, there has been 17 movies based on Novels in 2011 and 15 movies in 2015, which can be seen from the first chart. The second chart shows the movies based on Novels across Genres. It can be observed that there have been more movies in Drama Genre based on the Novels. The third Chart shows the relationship between Average Budget Spent and Average Profitability for the movies that were produced based on Novels. We can see that Movies with Budget between 20M and 40M have generated profitability than the ones with 100M budget.

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

  The additional question proposed is:
  Which genre of movies then new movie production company should produce. This question was proposed because it is a new company that is venturing into the movie production. They should produce movies that are profitable and at the same time make the Production company popular.
  The Tableau story is generated for this question.