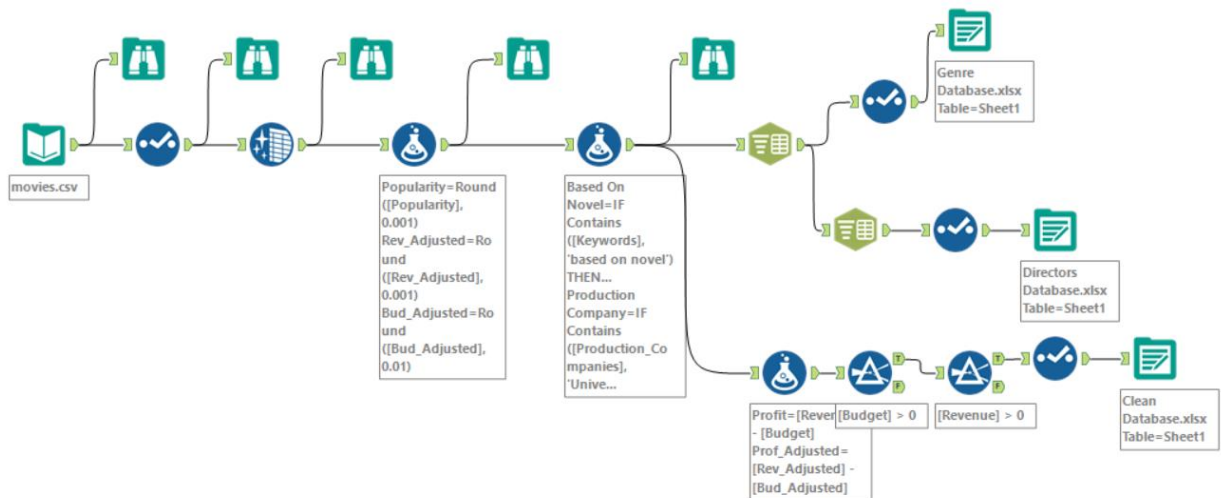


Project: Visualizing Movie Data

Step 1: Data Cleanup and Attribute Selection

Before diving into data exploration, it is necessary to clean up the dataset and prepare it for the analysis. Our dataset was prepared using Alteryx, and the workflow can be seen below.



For the purposes of this projects, eight attributes were selected for the analysis. The selection was made based on the questions imposed trying to maximise the insight we can derive from this dataset. These are:

- Original Title
- Genre
- Release Year
- Popularity
- Runtime
- Production Company
- Based on Novel
- Profit Adjusted, based on $\text{Rev_Adj} - \text{Bud_Adj}$

Step 2: Tableau Visualizations

Link to Tableau Public Visualizations → [P3 – Visualize Movie Data](#)

Step 3: Questions

Question 1: How have movie genres changed over time?

The top graph illustrates the amazing increase in movies production since the 1960's. The no. of movies per genre did not exceed ten until 1975, skyrocketing up to 87 movies per genre in 2015. At the same time, we see the top genres over time based on no. of movies per genre. Drama movies were always the producers' favourite with small exceptions such as the late 80's where comedy prevails. In the early years, i.e. 1960-1975, most popular genres based on average popularity were Animation/Family/Fantasy/Horror/Adventure. However, most movies of that period were dramas, action movies and thrillers, which shows a 'failure' of the cineworld people to read the peoples' preferences and in return gain more money and fame. The latter can be asserted by looking at the last decade, where popular genres consistently have high profits per movie on average, e.g. Adventure \$195m and Fantasy \$216m.

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

Based on the top 10 genres, as shown in the dashboard, Universal Pictures appears to have the most successful movies in all but three categories, i.e. Action, Romance, Thriller. Paramount has produced the most successful movie of all times based on adjusted profits and this movie is *Titanic*. Both companies have very popular movies to show over the years, the two most popular being *Interstellar* (Paramount, 2014) and *Jurassic World* (Universal, 2015). The latter is also the most lucrative movie of the last fifteen years, reaching \$1.25 billion in adjusted profits. Overall, Universal has produced ca. 13000mins of movies more since 2000 and filmed six of the top-10 movies, as shown in the Profits Achieved Per Movie graph.

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

Comparing all movies 1960 to 2015, it appears that movies based on novels are a clear winner and this applies to most genres. Typically, only a bestseller will be used to make a movie and this may explain the increased popularity of novel based books. Of course, there are genres such as documentary movies that do not offer themselves for making a movie from a novel. The profits comparison visualization verifies the hypothesis that movie novels can bring great profits. In summary, it appears that it is very good practise to draw inspiration from the book world except when making a documentary, a history movie, animated, foreign, and tv movies – genres that are not very common.

Question 4: What are the traits of a successful movie based on recent movies?

It would be most useful to define, if possible, what a successful movie would look like. The client would then have a much better chance to succeed and make a name of the new production company. First, the most successful movies, based on profit, were identified. Only movies later than 2010 were considered to capture any trends in viewers' preferences. Subsequently, it was shown that genres like Action/Adventure/Sci-Fi/Thriller are producers' favorites while at the same time achieve high profits. Lastly, most popular movies in the above genders have an average runtime of 120-130 minutes.