**Project 1 – Team 3**

**Does a higher budget determine how lucrative a movie’s profit will be?**

We found no correlation between budget and profitability from all the movies in our research. Instead, the scatter plot revealed most movies were made under a 60-million-dollar budget. Also, most of the higher profits were movies made at or less than a 60-million-dollar budget.

**Do we find a correlation when we look at the top 3 genres?**

Taking a deeper dive, we identified the top 3 most lucrative genres, which were Drama with a total of 126 movies, Action with a total of 112 movies, and Comedy with a total of 91 movies. Drama and Comedy were similar, with most movies made under a 60-million-dollar budget and very few over that budget. We see the same trend of higher profits under a 60-million-dollar budget. The Action scatter plot was more scattered. We see higher budgets, and while we do see higher profits with higher budgets, we also see higher profits in lower budgets. Therefore, none of the genres had a correlation between budget and profit.

**Is there a difference between the US and internationally?**

Having no difference in the top 3 genres, we wondered if there was a difference in the US and International countries. Both returned no correlation, the US with a 0.29 correlation, and International resulted in a lower 0.07 correlation. The difference we did see is that in the US, we spend more on movies than international countries. In the US we see high profits in low and high movies, while in International countries, we only see the higher profits in budgets below 100-million-dollars.

**API’s**

**The Movie Database (TMDb)** -

**OMDb** - Pulled movie titles and metascores. After cleaning missing data, we only had data for 9043 out of 84294. We did not use for the project, decided to focus on profit for the top 3 genres and us vs. international.

**Datasets**

**IMDb** – Pulled movie titles and ratings.

**Kaggle** – Pulled Netflix original titles. After cleaning missing data, we only had complete data for 44 titles out of 568. We did not use for the project, decided to focus on profit for the top 3 genres and us vs. international.