

EXPLORATORY DATA ANALYSIS PROJECT

Business Problem.

- Microsoft sees all the big companies creating original video content and they want to get in on the fun.
- They have decided to create a new movie studio, but they don't know anything about creating movies.
- You are charged with exploring what types of films are currently doing the best at the box office.
- You must then translate those findings into actionable insights that the head of Microsoft's new movie studio can use to help decide what type of films to create.



Bussiness Problem Solution

- After analyzing the business problem, I decided to determine which movies made the most profit at the box office and use the profit as a measure of the movies' performance.
- With that, I used the 'movie_gross' dataset (obtained through web scrapping) to gain insights that will offer solutions to the business problem.
- This dataset gives information on the revenue generated from different box office movies in the time period 2010-2018.
- I performed exploratory data analysis on the dataset and drew meaningful insights in regard to the performance of the different movies .

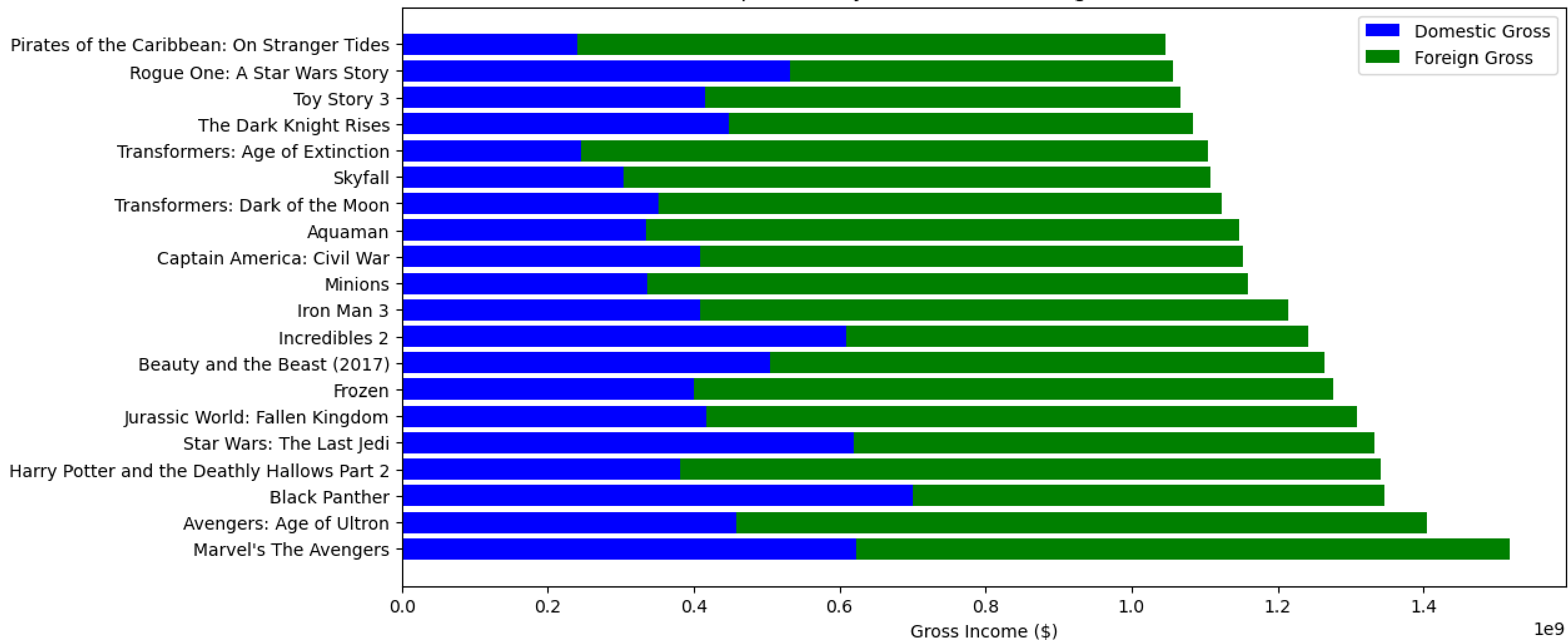


DATA VISUALIZATIONS

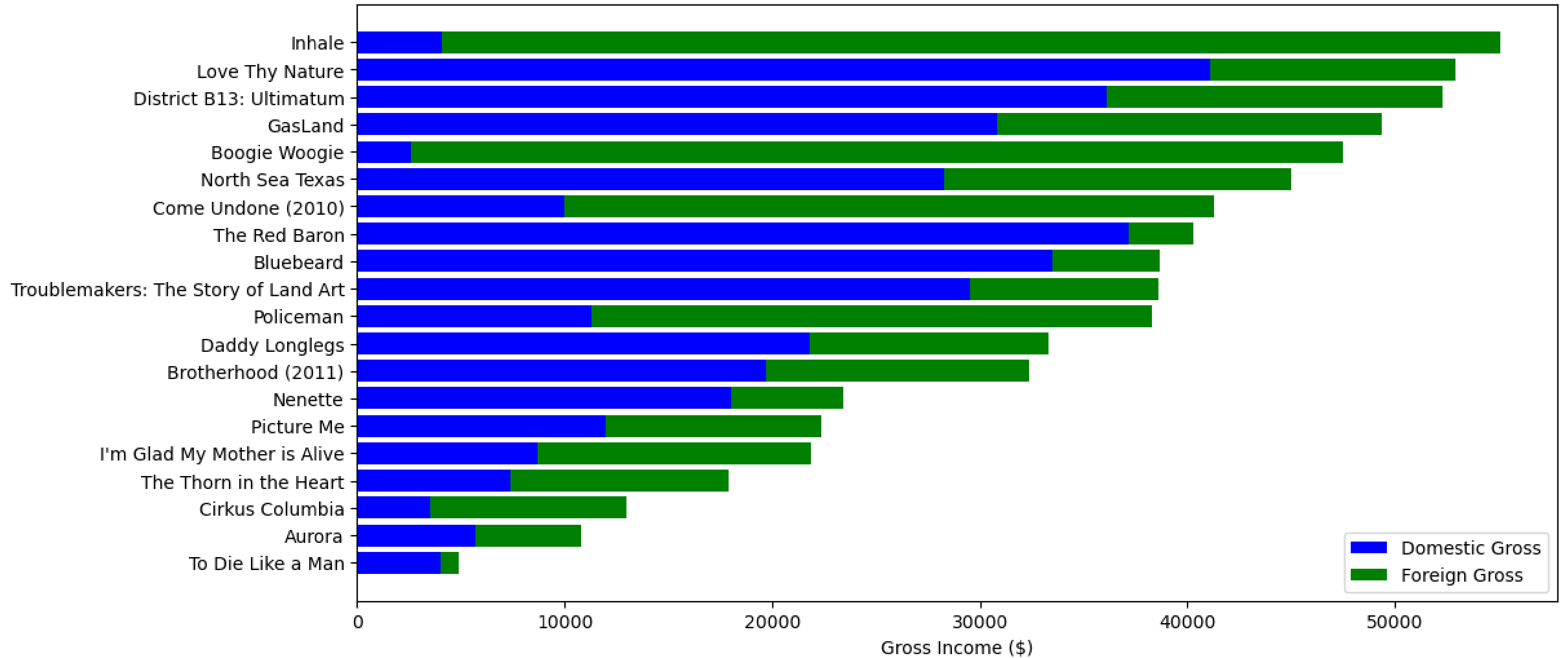
- After performing exploratory data analysis on the dataset, I visualized my findings to make it easier to identify patterns, trends, and outliers.
- My visualizations are as follows:
 - 1). Top 10 movies in terms of Total Gross income generation.
 - 2). Bottom 10 movies in terms of Total Gross income generation.
 - 3). A trend showcasing revenue generation from movies over the years.
 - 4). Top 10 studios in terms of movie generation.



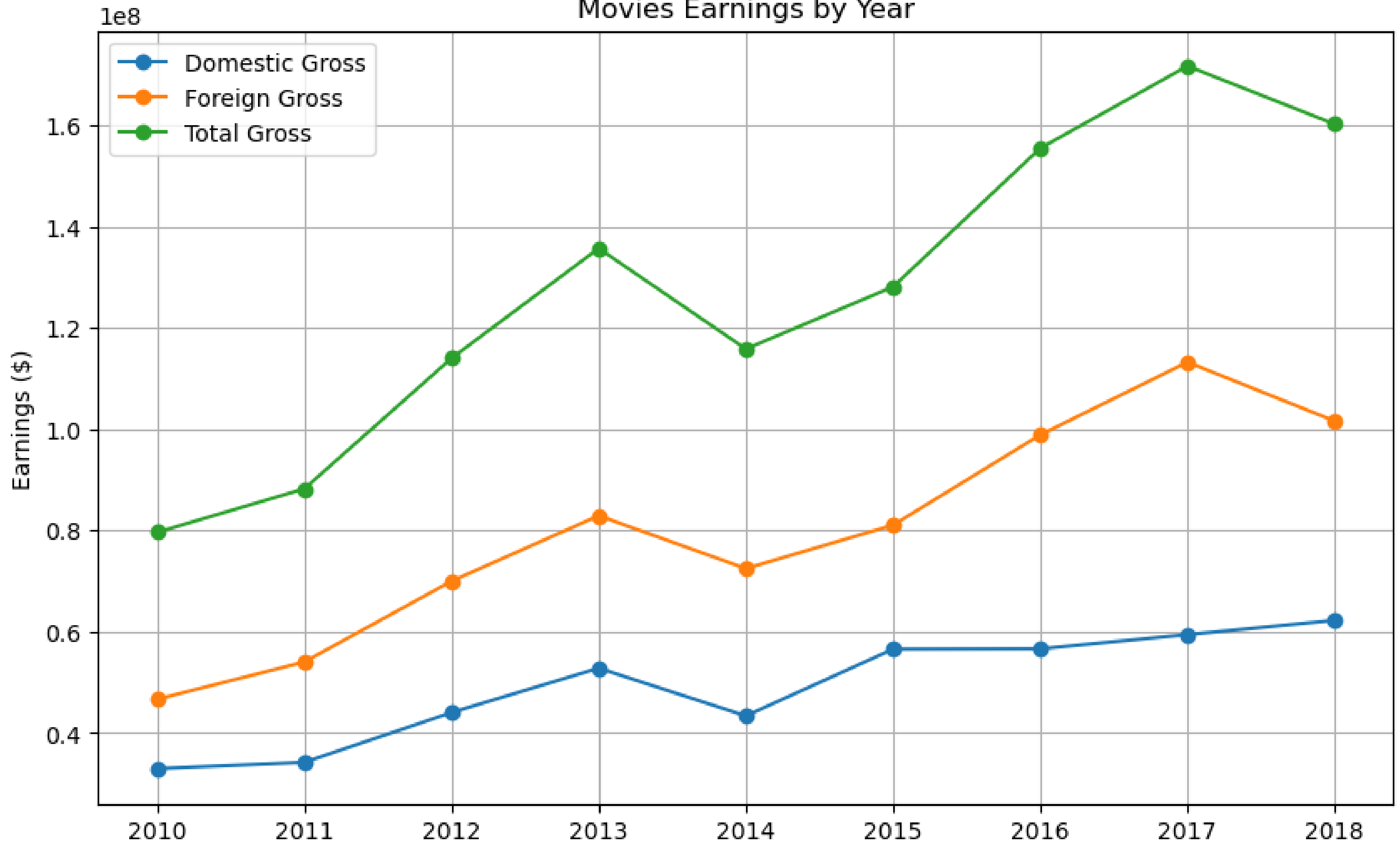
Top Movies by Domestic and Foreign Gross Income



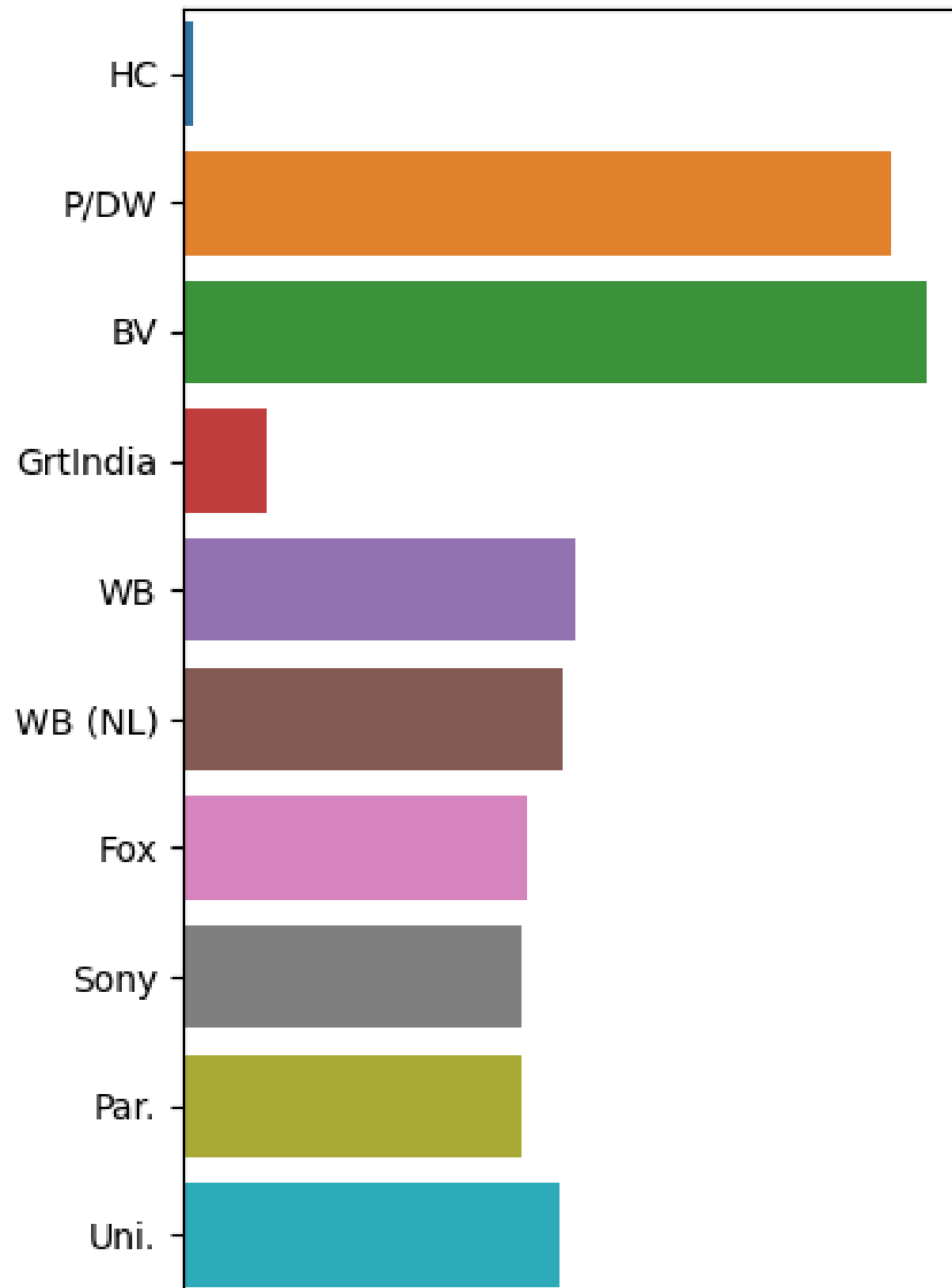
Bottom Movies by Domestic and Foreign Gross Income



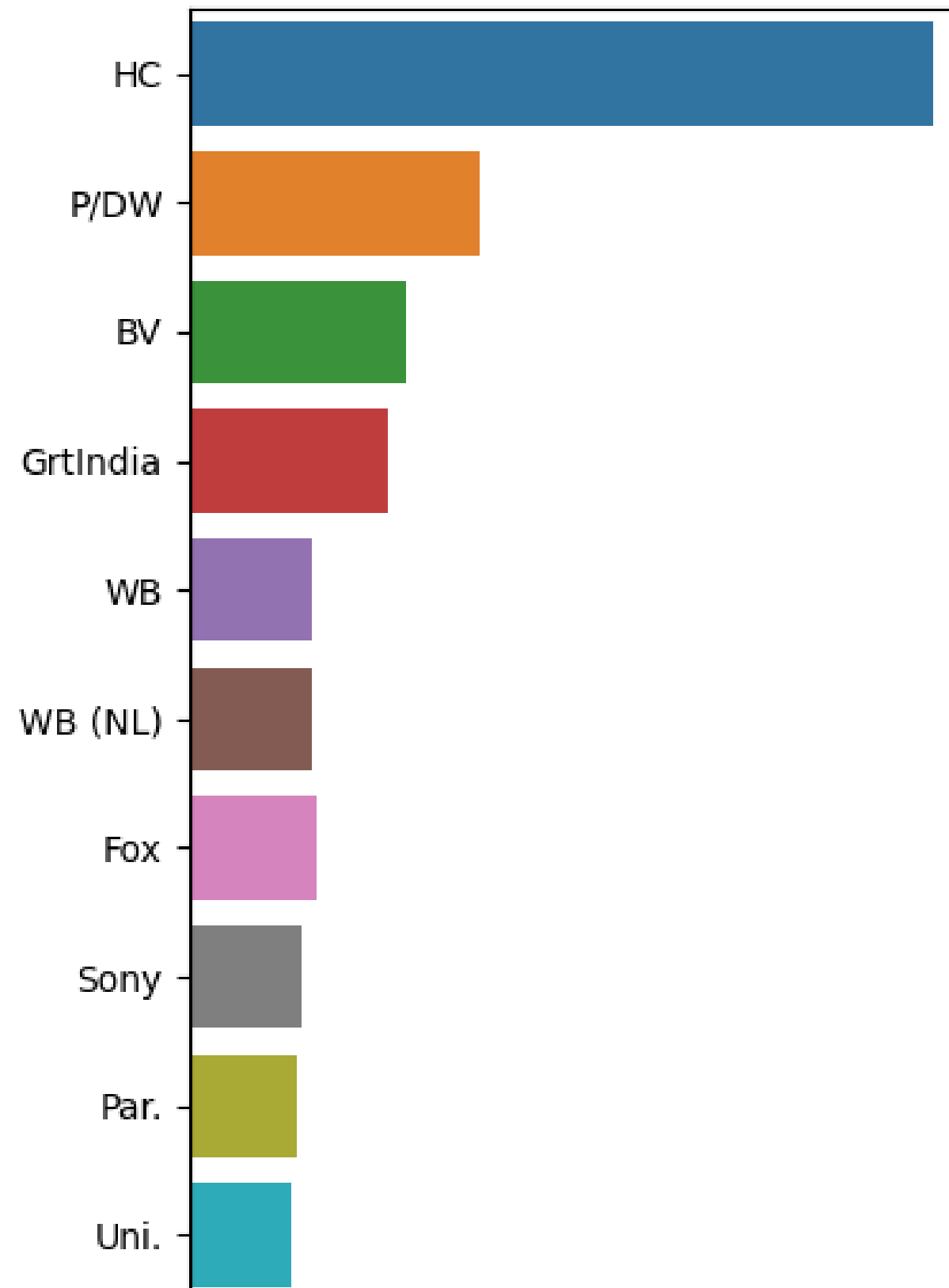
Movies Earnings by Year



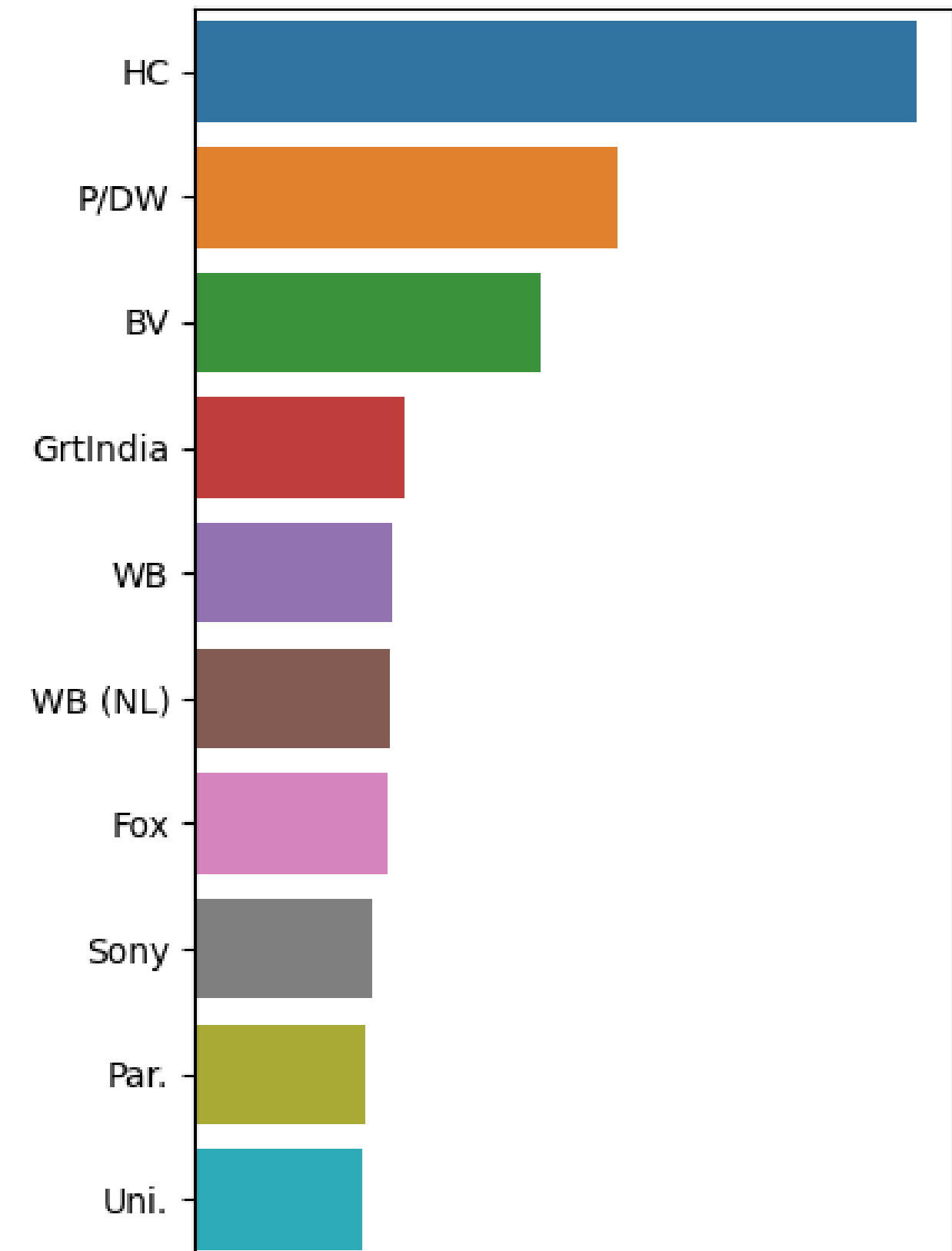
Average Domestic Gross by Top 10 Studios



Average Foreign Gross by Top 10 Studios



Average Total Gross by Top 10 Studios



Insights and Recommendations To The Microsoft Team.

- The Microsoft team should primarily focus on creating movies that are bound to have a sequel. This is because, over the time period of 2010-2018, most of the top-performing movies are either prequels or sequels while the bottom performers are stand-alone movies. The team should also look into the genres of these top-performing movies so as to capitalize on these genre markets.
- The team should majorly focus on creating movies that appeal to foreign markets. This is because, across the given time period, foreign gross revenue has been significantly higher than Domestic gross revenue. Still, on the same basis, the team should set aside a significantly higher marketing budget for foreign market advertisement in comparison to domestic market advertising.
- I would also recommend that the Microsoft team consider collaborating with the Top 10 ranked Studios(in terms of revenue generation) when running marketing campaigns. This is because these studios are more likely to have a wider audience reach and are frequented by top movie fanatics
- Lastly, the team could investigate the cause of a spike in movie revenue generation from the year 2014 onwards. Might it be due to a change in movie graphics? Could it be due to a focus on a particular topic(s)? etc...From this, the team could obtain information to be used as a guide during movie production in order to ensure that their movies are top-ranking. (From the data availed, I am not able to perform this analysis).

