

ROCKBUSTER STEALTH

Movie Rental Company Data
Analysis Project

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CONTEXT

- Rockbuster Stealth LLC is a movie rental company that used to have stores around the world. Facing stiff competition from streaming services such as Netflix and Amazon Prime, the Rockbuster Stealth management team is planning to use its existing movie licenses to launch an online video rental service in order to stay competitive.

Goal

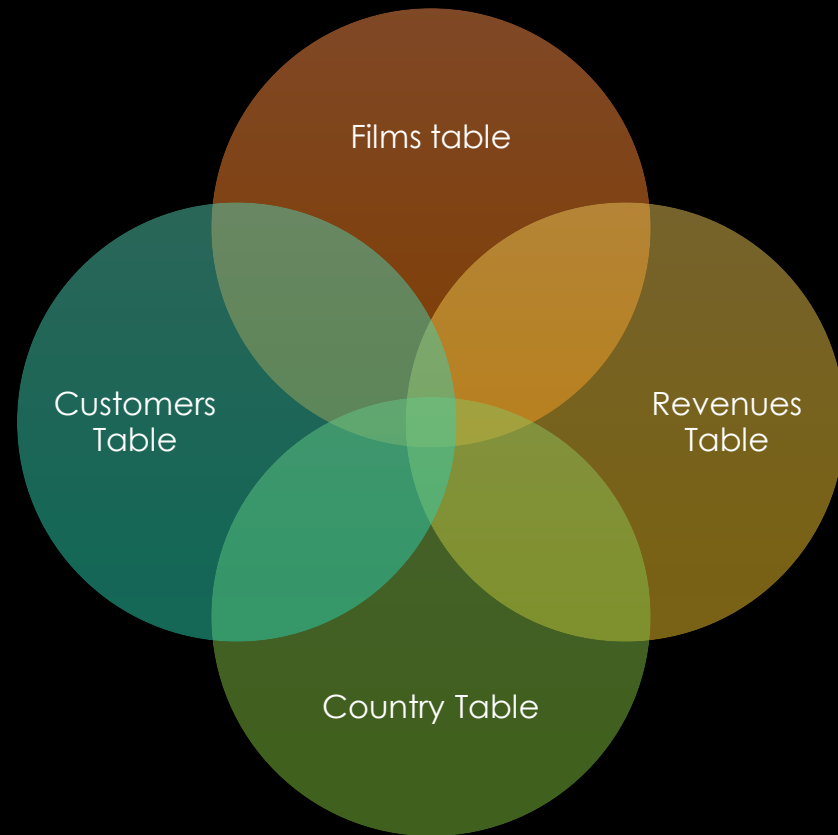
- To provide data driven recommendation for the new online video service.

KEY QUESTIONS AND OBJECTIVES

- ☐ Which movies contributed the most/least to revenue gain?
- ☐● What was the average rental duration for all videos?
- ☐● Which countries are Rockbuster customers based in?
- ☐● Where are customers with a high lifetime value based?
- ☐● Do sales figures vary between geographic regions?

PROJECT OVERVIEW

- **Pre-Analysis** • Created list of research questions and formulated hypothesis.
- **Anlaysis** • Conducted statistical analyses by calculating the mean, medium, variance and standard deviation for key variables.
- Tested correlation between key variables to identify potential relationship •
- Formulated statistical hypothesis and conducted hypothesis testing.
- **Visualization** • Created visualization using Tableau.



GENERAL DATA INFORMATION

Customer 599	From 108 Countries	Revenue Total: \$61312.04
Rental Range \$ 0.99 - \$ 4.99	Average Rental Duration 5 days	Replacement Cost \$ 9.99 - \$ 29.99
Film 1000	From 2006	Rating PG-13, NC17,PG,R,G
Movie Length 46-185 min	Countries # 109	Top Categories Sports, Animation
Genre 17	Language English	From Two Store Canada & Australia



DATA SOURCE

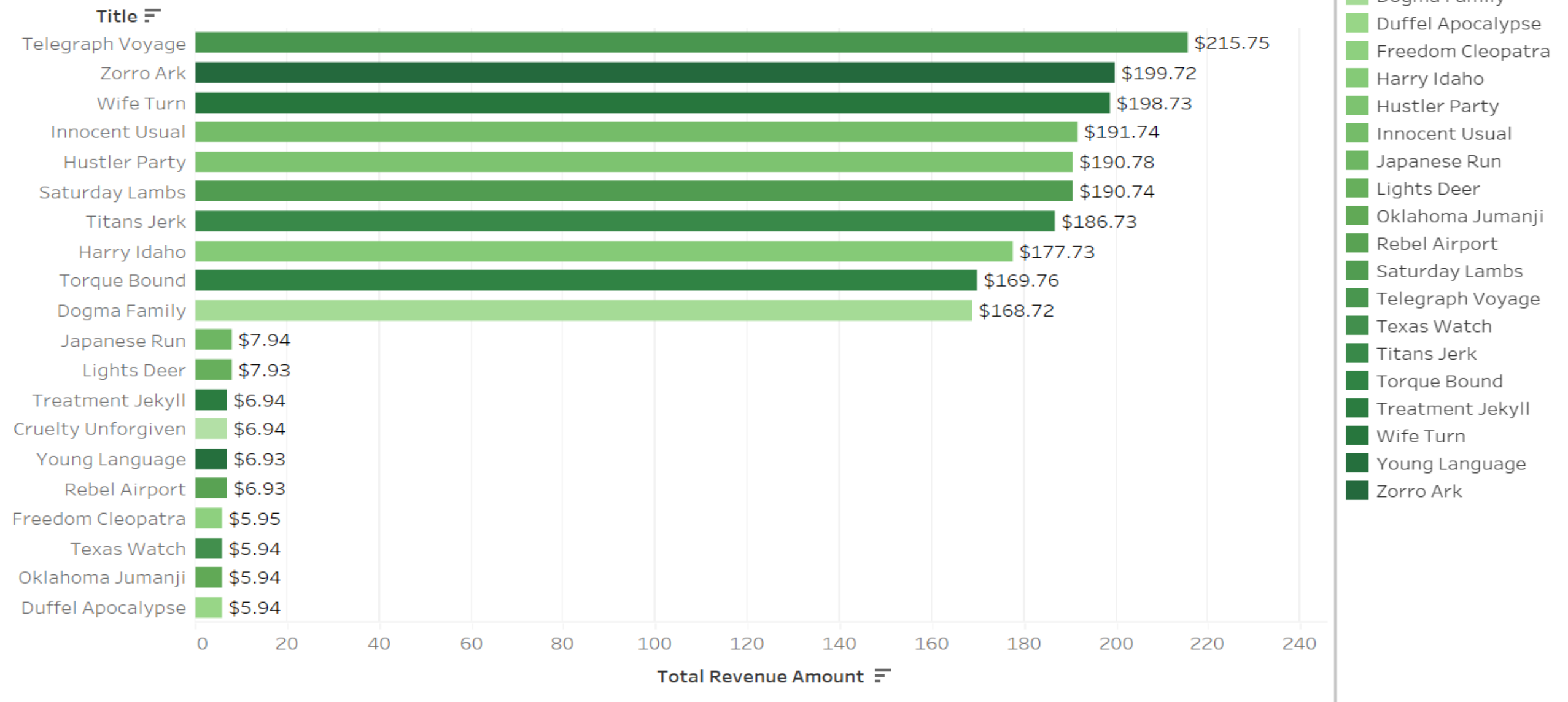
DATA DICTIONARY

ANALYSIS TOOLS

**ROCKBUSTER
INTERNAL DATA
BASE**

SQL, TABLEAU

Top 10 & Bottom 10 Movies by Revenue

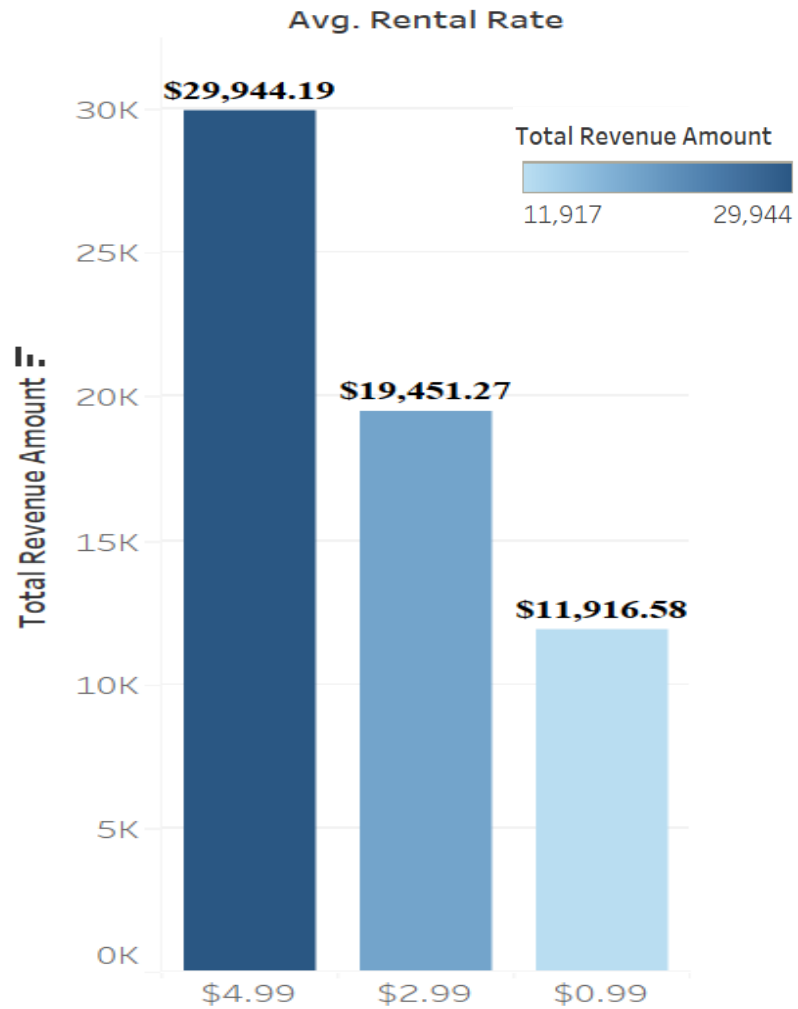


Top 2 movies belongs to comedy and Music Category. Bottom 2 belongs to documentary category. So Movie related to comedy and Music has more Revenue value.

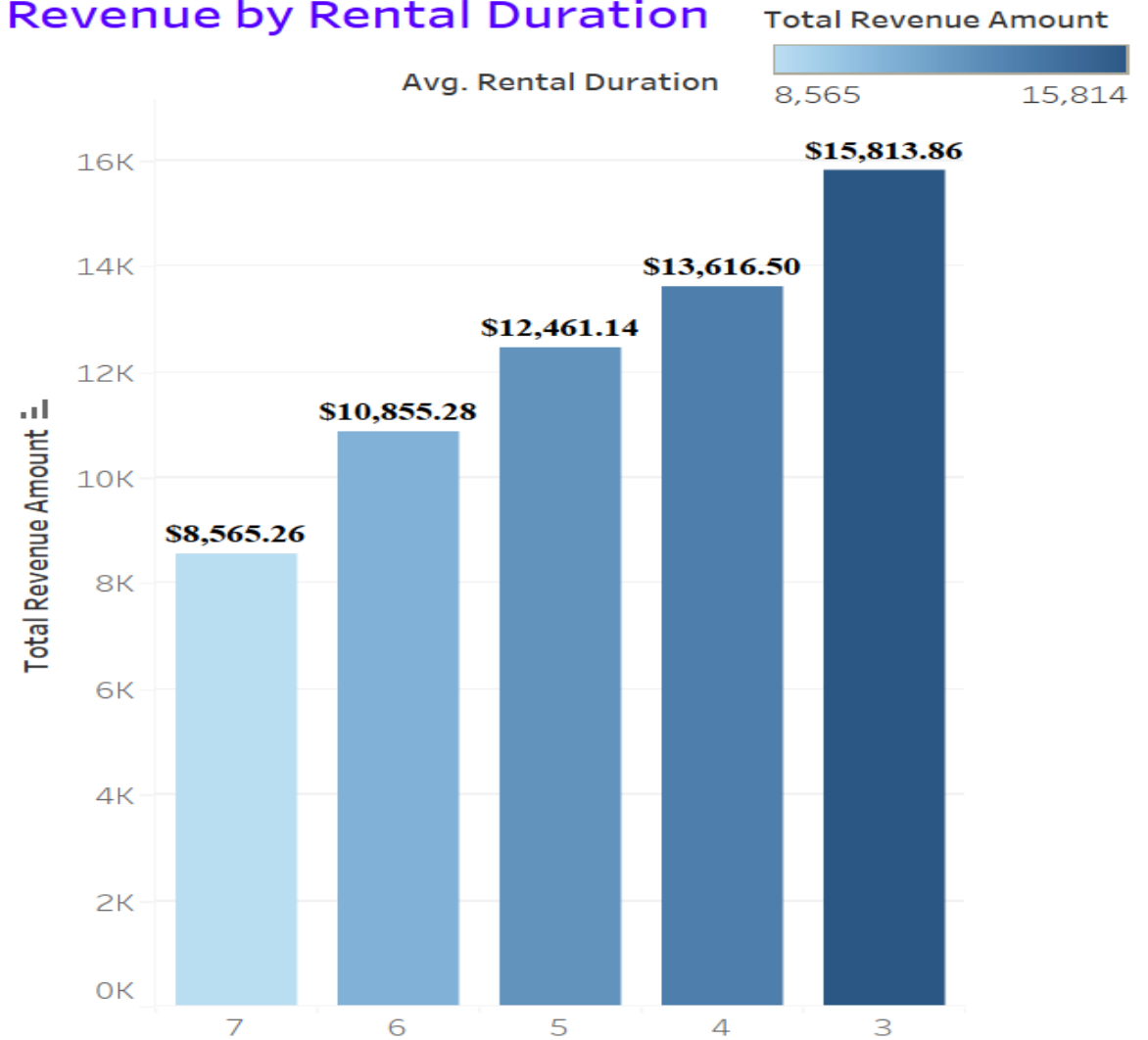
FILMS AND REVENUE



Revenue by Rental rate

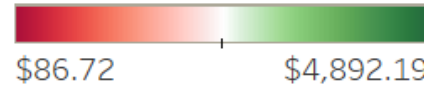


Revenue by Rental Duration



Movie By Total Revenue

Total Revenue Amount

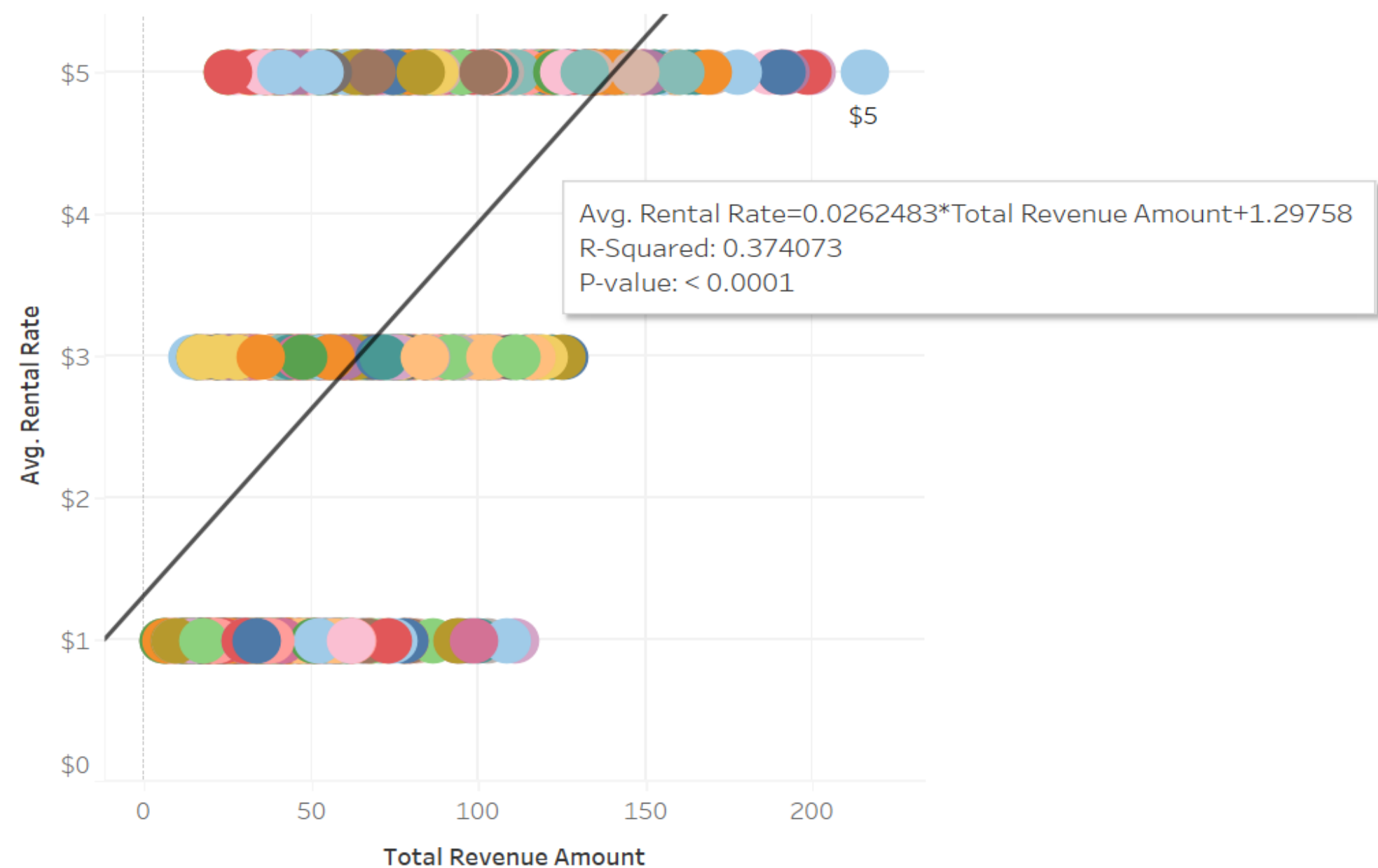


In this we can see Sports Movies has highest Revenue then Sci-Fi.

These movies are more likely online. These movies are most profitable movies By Revenue for the Company.

Sports \$4,892.19	Comedy \$4,002.48	Games \$3,922.18	Family \$3,830.15	Documentary \$3,715.86
Sci-Fi \$4,336.01	New \$3,966.38	Classics \$3,353.38	Children \$3,309.39	Travel \$3,227.36
Animation \$4,245.31	Action \$3,951.84		Music \$3,071.52	
Drama \$4,118.46	Foreign \$3,934.47	Horror \$3,348.34		

Relationation between Rental rate and total Revenue(0.611)



Trend Lines Model

A linear trend model is computed for average of Rental Rate given sum of Total Revenue Amount. The model may be significant at $p \leq 0.05$.

Model formula: (Total Revenue Amount+intercept)

Number of modelled observations:	958
Number of filtered observations:	0
Model degrees of freedom:	2
Residual degrees of freedom (DF):	956
SSE (sum squared error):	1617.3
MSE (mean squared error):	1.69174
R-Squared:	0.374073
Standard error:	1.30067
p-value (significance):	< 0.0001

Individual trend lines:

Panes	Line	Coefficients						
Row	Column	p-value	DF	Term	Value	StdErr	t-value	p-value
Rental Rate	Total Revenue Amount	< 0.0001	956	Total Revenue Amount	0.026248	0.001098	23.9026	< 0.0001
	intercept	1.29758	0.081886		15.8462	< 0.0001		

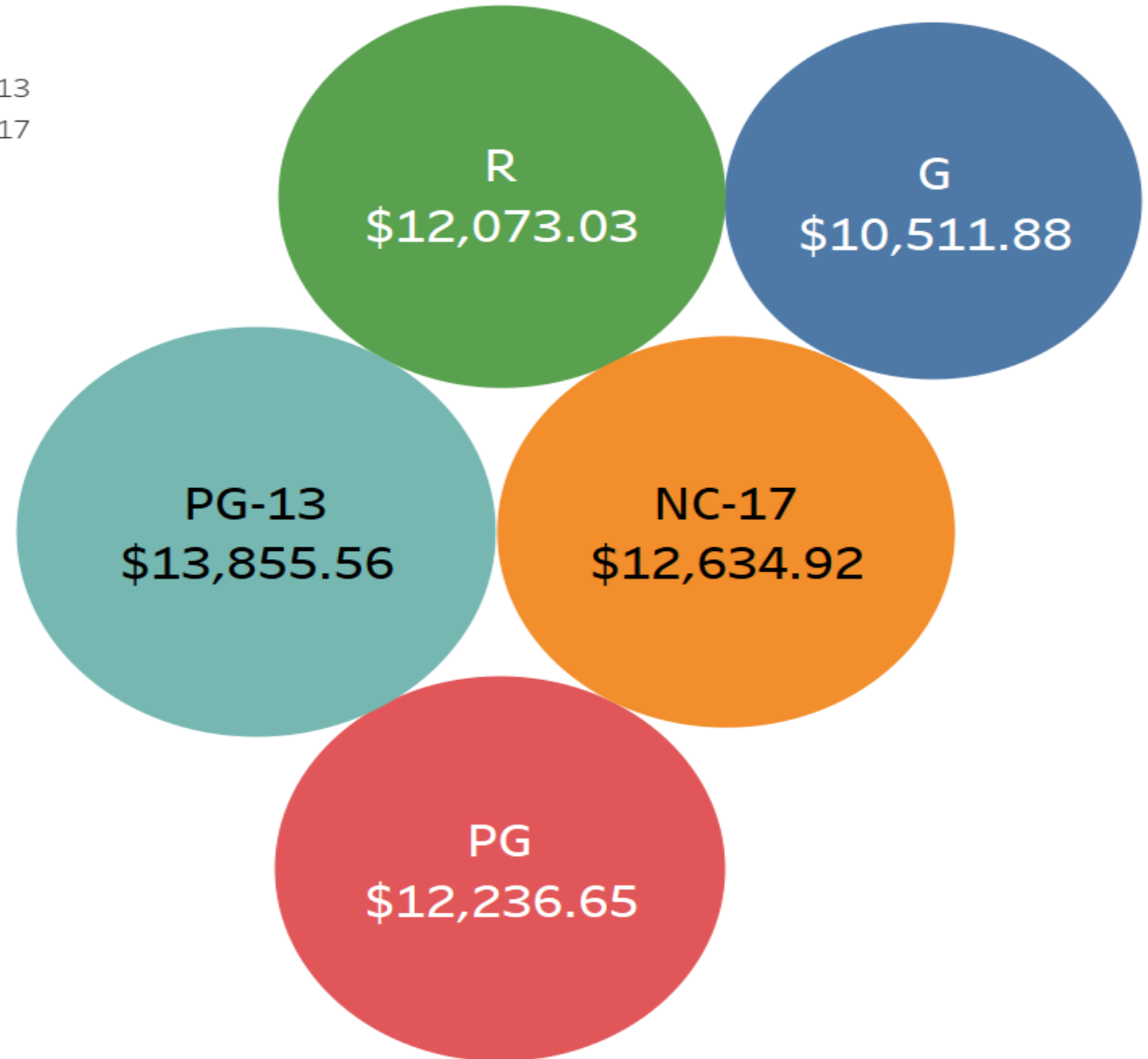
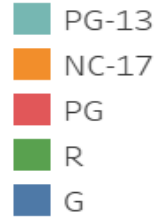
Square root of R squared = 0.611

AS we see Trend Line is upward and P value is < than 0.0001 which is showing strong relationship between Rental rate and Total Revenue.

As we can see here Best Rating is PG-13 with Best Revenue Amount and then NC-17 which are beating Out G and R rating.

Rating By Total Revenue

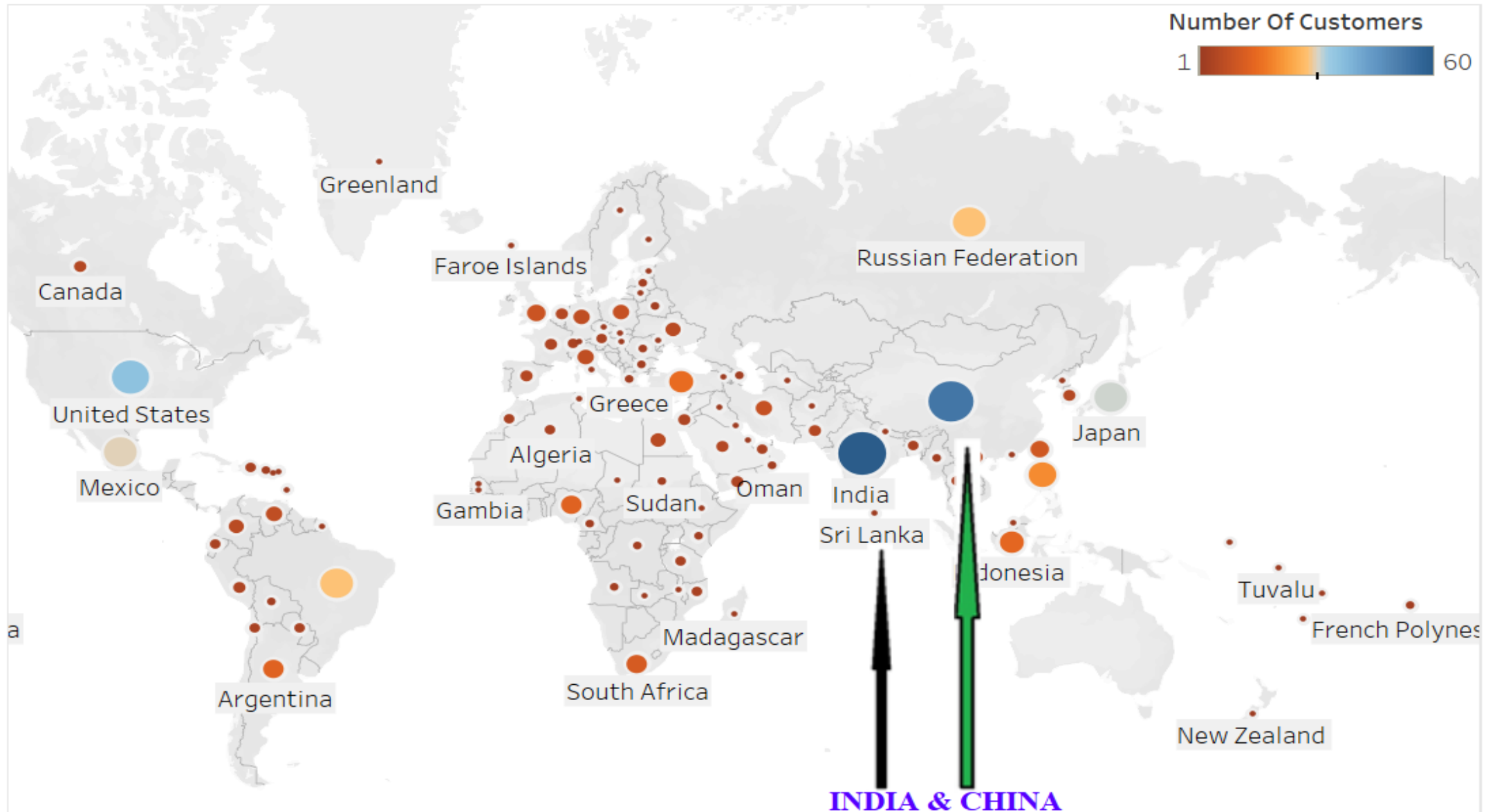
Rating



CUSTOMERS



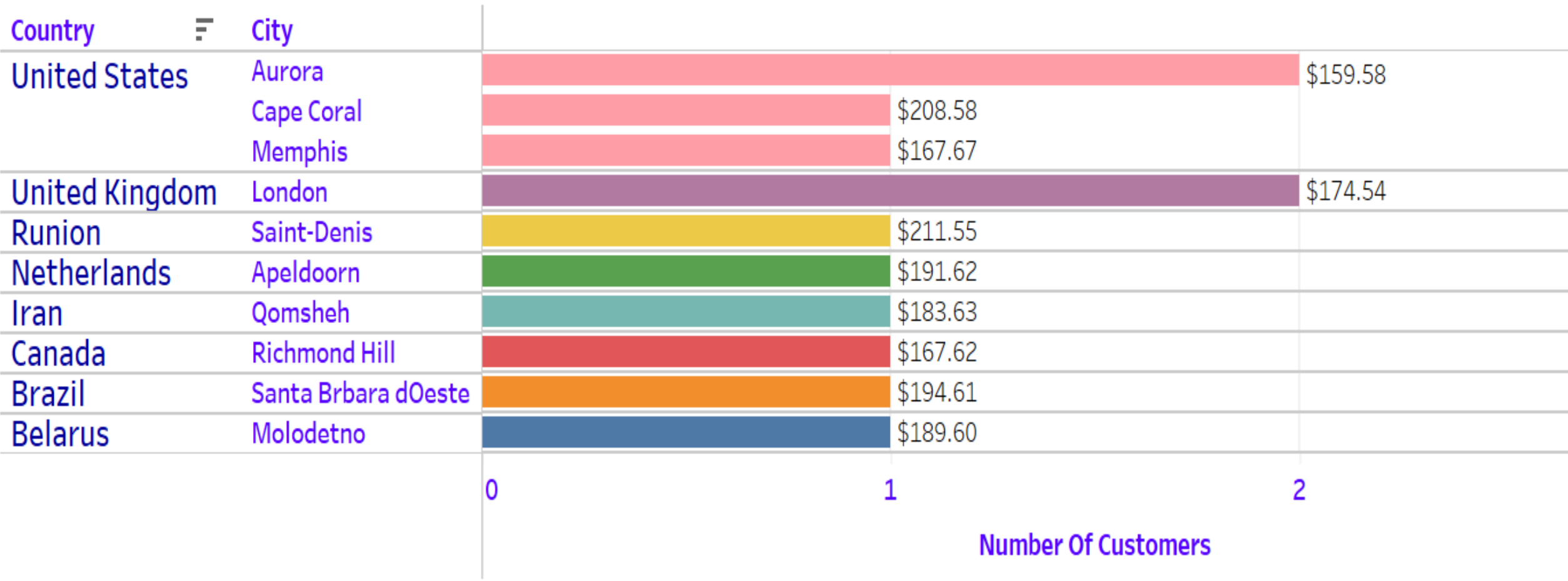
Countries by Revenue and Number of Customers



INDIA and CHINA are the best Countries By Revenue and Number of Customers.

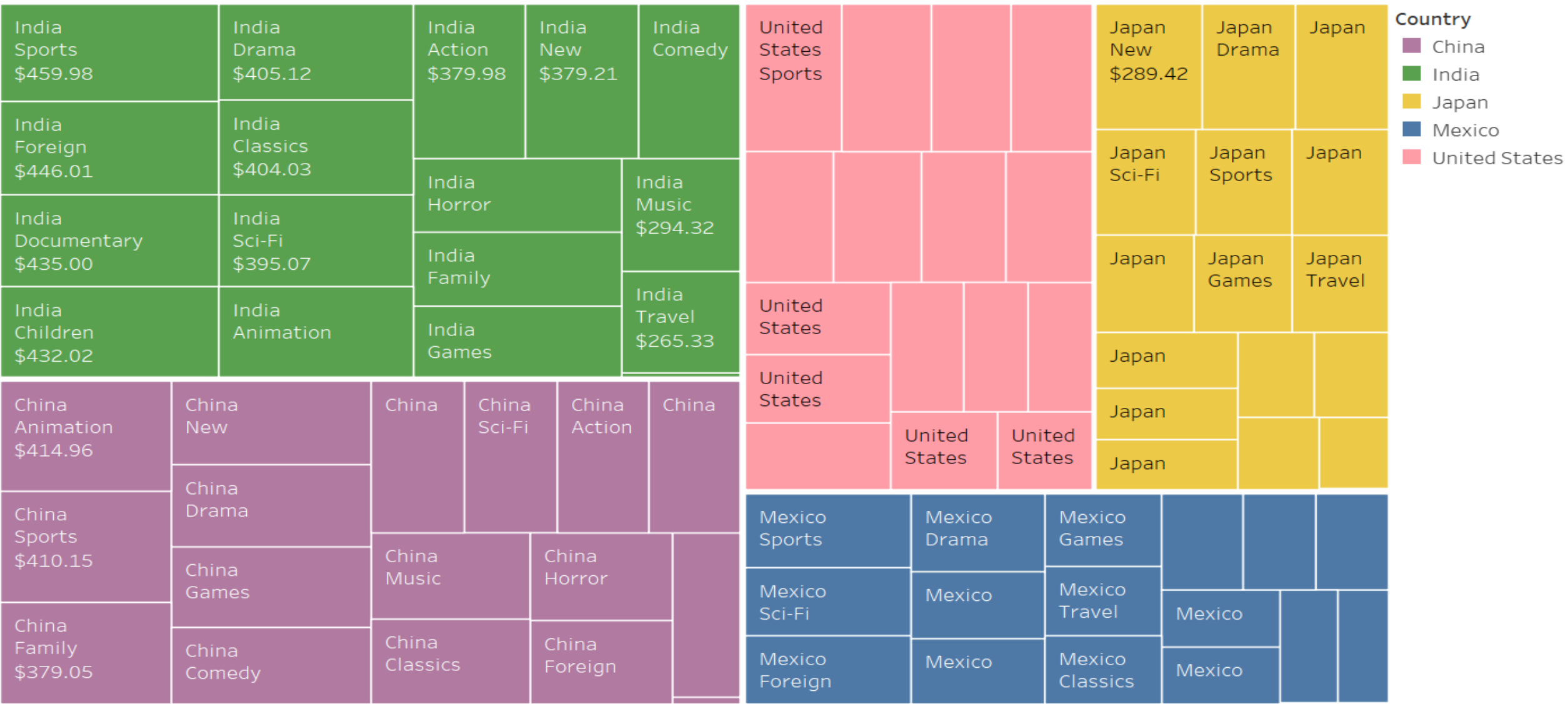
These Countries have highest Population gives more Customer as compare to other countries.

Number of Customers in top 10 countries By Revenue



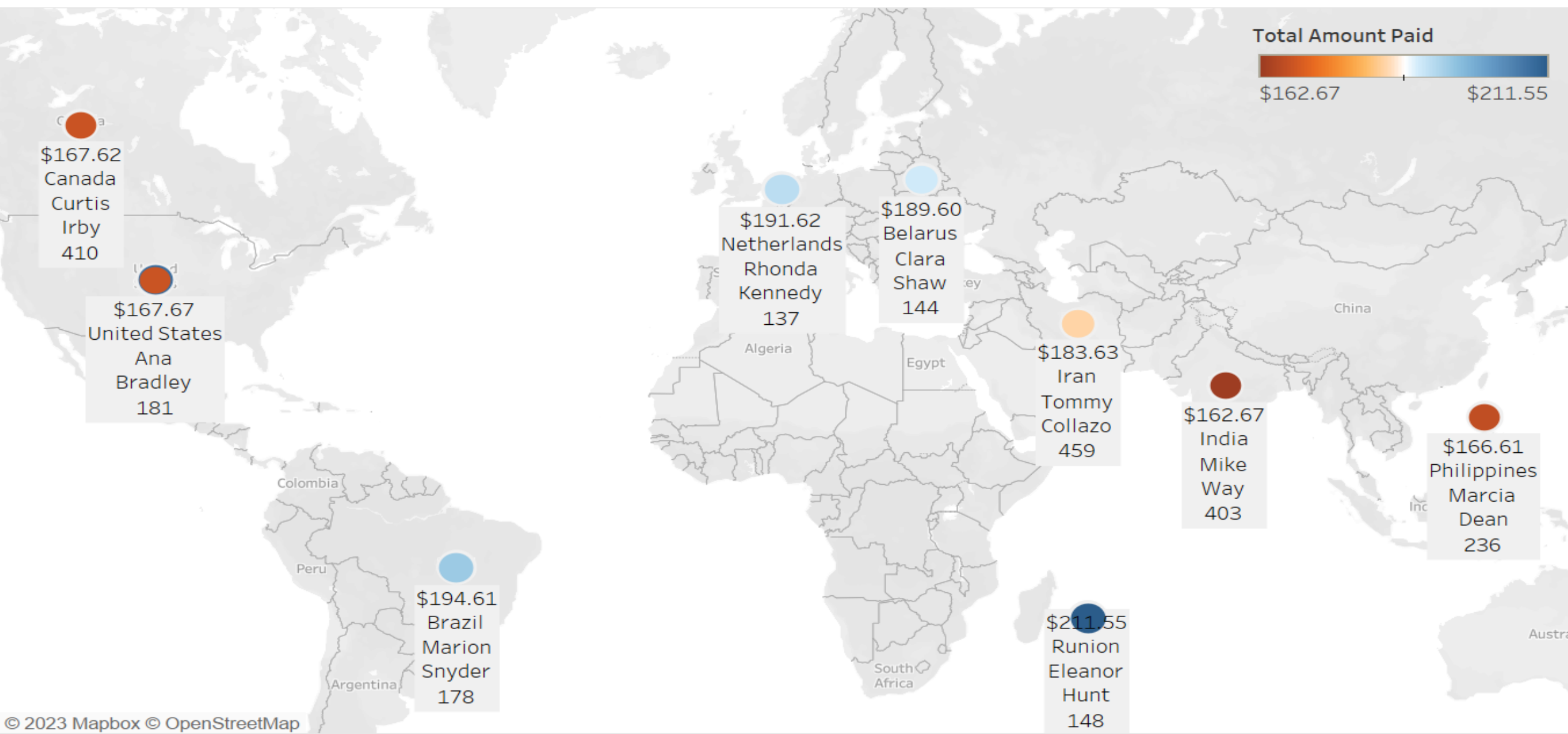
United States and United Kingdom have more Customers than other Top Countries By Revenue. United States and Reunion have highest Revenue amount by customers in Top 10 countries.

Leading Top 5 Countries By Category and Total Revenue



INDIA, CHINA, JAPAN, MAXICO and UNITED STATES has more Number of movies and Revenue amount By Movie Category.

Top 10 Customers With High LifeTime



United States and Reunion have highest value By Revenue amount in Top 10 Countries. These are the customers that have spent the most amount of money renting movies from Rockbuster Stealth from the top 10 countries by revenue.

RECOMMENDATIONS

- Avoid adding G and N rated films, since they have the lowest revenue generation of all ratings.
- Avoid Thriller Film because of Lowest Revenue amount.
- PG-13, N-17 and PG are best by rating so add film according to these rating best By Revenue.
- Sports & Sci-Fi Films are most Likely in compare to other genre.
- **Top 3 movies:** Telegraph Voyage ,Zorro Ark, Wife Turn
- **Top 3 customers:** Eleonor Hunt, Karl Seal, Marion Snyder.
- **Order count and shorter rental duration drive revenue**
Movie length and MPAA ratings do not have a significant influence on revenue

CONTACT INFORMATION:

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