



2024.09.01

# ROCKBUSTERS

ONLINE MOVIE RENTAL SERVICE 2025

by Daniel Mueller



## Context

# Objective

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Rockbuster Stealth LLC is planning to use their existing movie licenses to launch a online video rental service by 2020 to stay competitive against services like Netflix and Amazon Prime.

# Tools

- 
- Rockbuster's relational database management system
  - SQL tool
  - Excel
  - Tableau

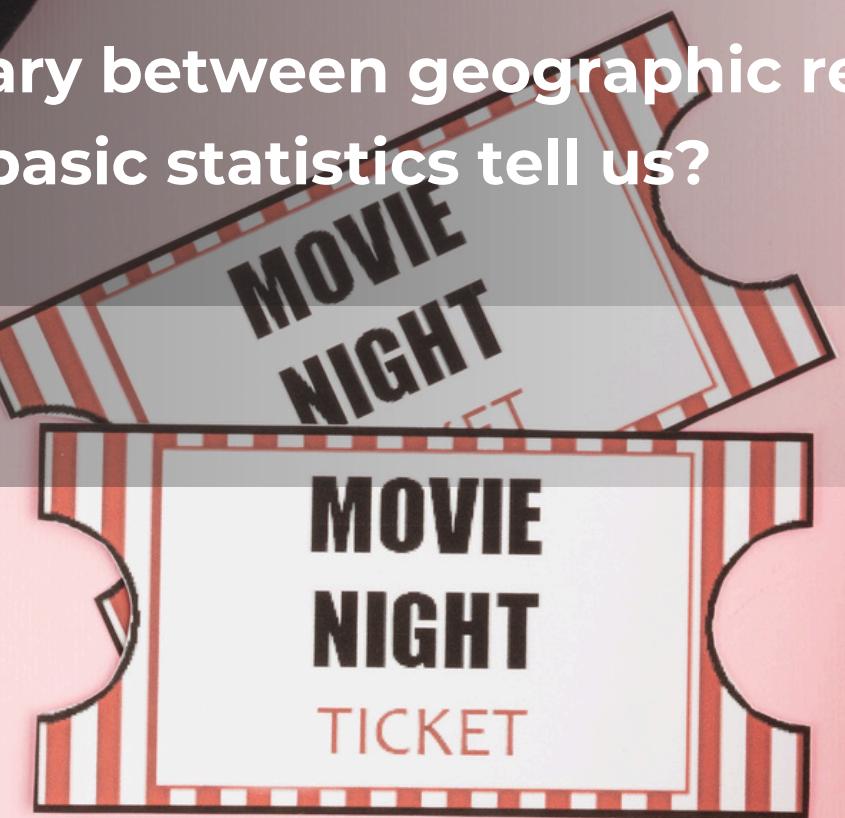


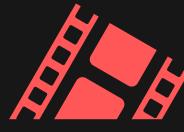
Rockbuster Stealth LLC



## Key Questions

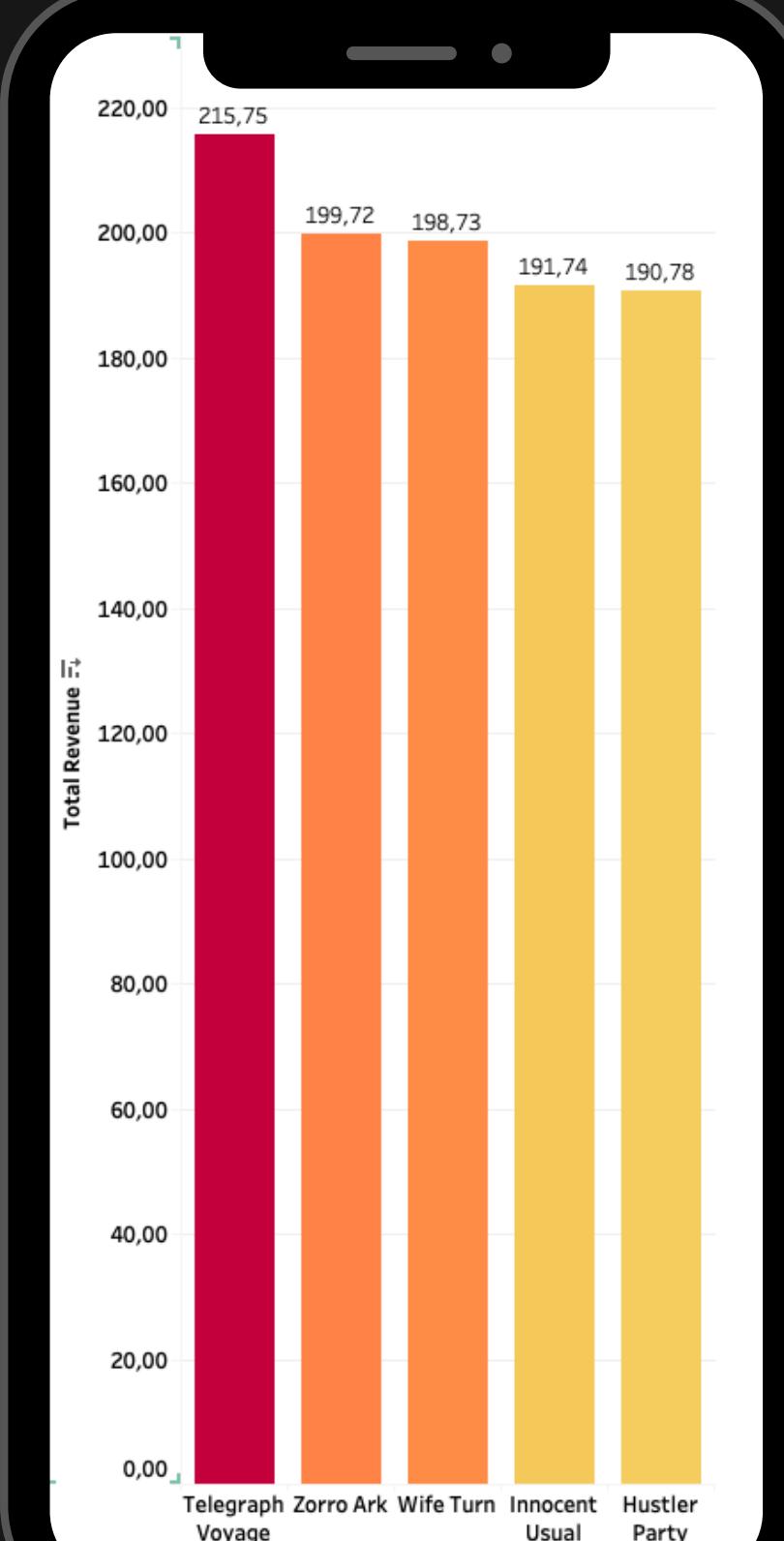
- Which movies contributed the most/least to revenue gain ?
- Which countries are Rockbuster customers based in?
- Where are customers with a high lifetime value based?
- Do sales figures vary between geographic regions?
- What does these basic statistics tell us?



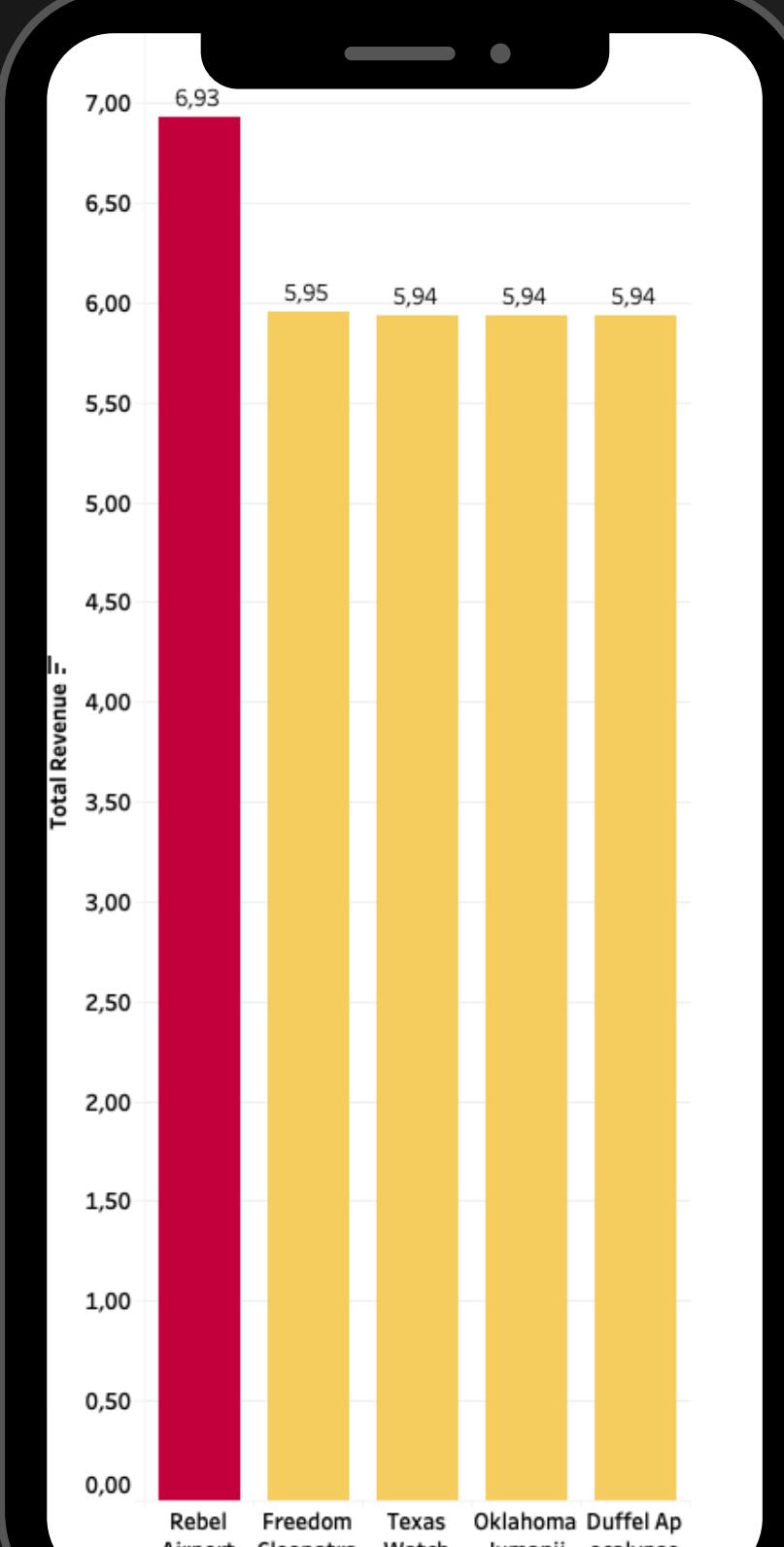


## Contribution to Revenue 2024

MOST

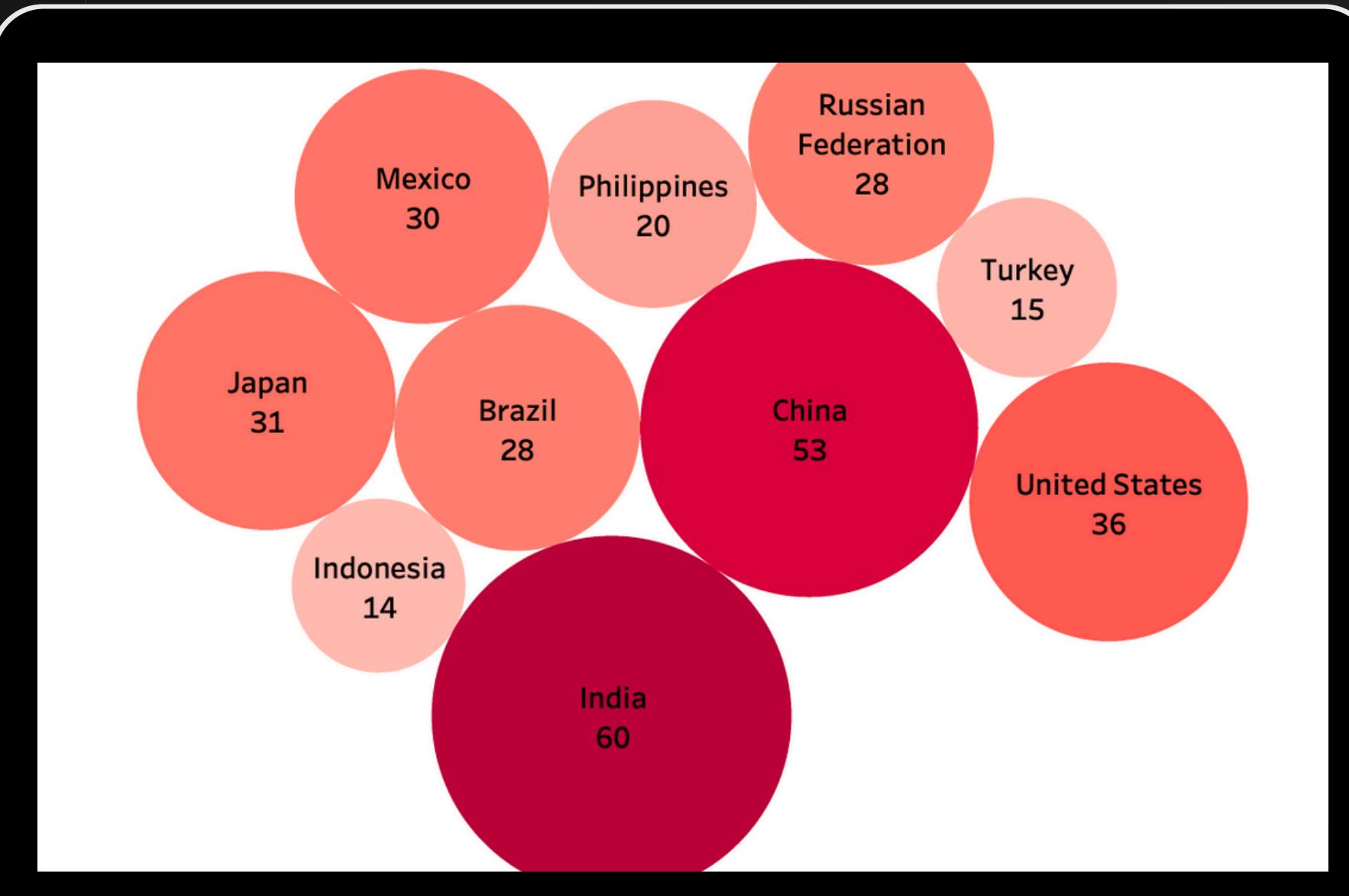


LEAST



Which movies contributed the least and the most to revenue gain?

Telegraph Voyage contributed the most to this years revenue followed by Zorro Ark. Whereas movies like Duffel Apocalypse are at the bottom of gaining revenue.



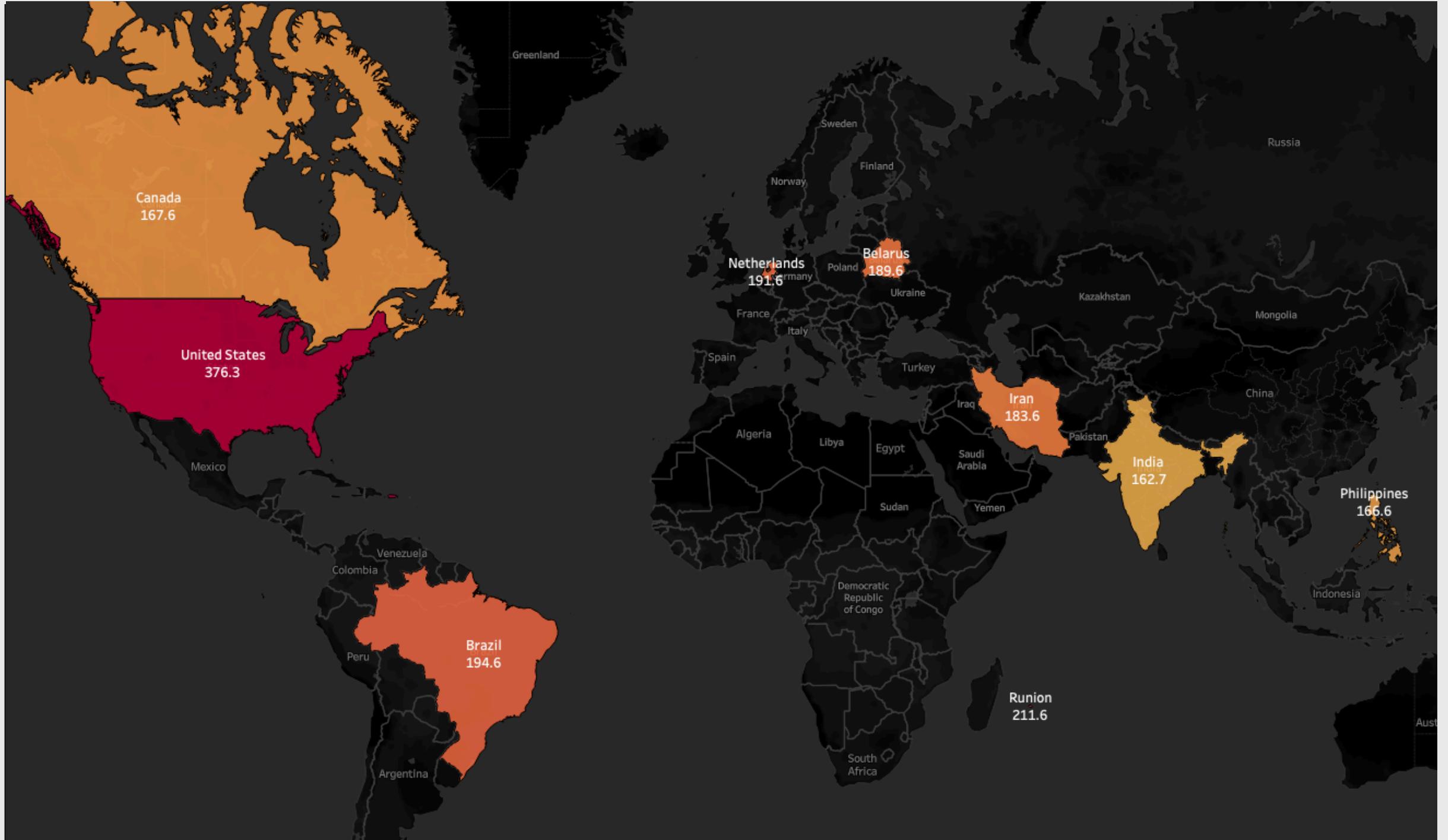
### Which countries are Rockbuster customers based in?

The bubble chart shows the top 10 countries with the highest customer count.

The most customers come from **India(60)** and **China (53)**, followed by the **US (36)**.



## Lifetime Value Customers



### Where are customers with a high lifetime value based?

The map shows where the customers with a high lifetime value are based.

Customers who contributed more than the average of the total sales are considered to have a high lifetime value.

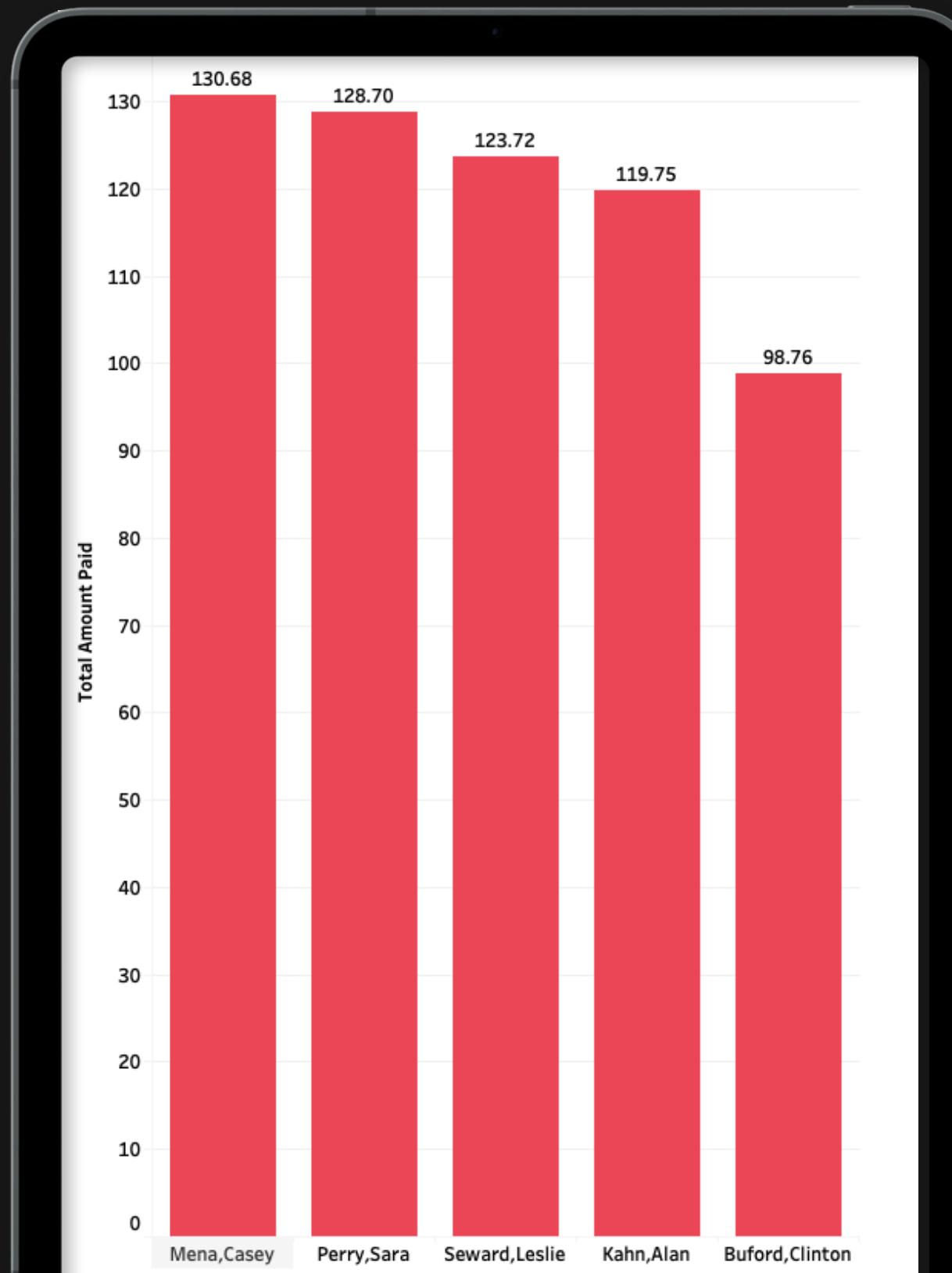
High lifetime customers are based across all continents, but especially in countries like the US, Reunion and Brazil.





Top Customers 2024

# Who are the Top 5 Customers?



- 130,68\$**  
Mena, Casey from Turkey
- 128,70\$**  
Perry, Sara from Mexico
- 123,72\$**  
Seward, Leslie from Indonesia
- 119,75\$**  
Kahn, Alan from China
- 98,76**  
Bufford, Clinton from United States

These are the top 5 customers of the year 2024.

Important to notice is, that these customers are based in one of the top 10 countries where the most of Rockbuster customers come from



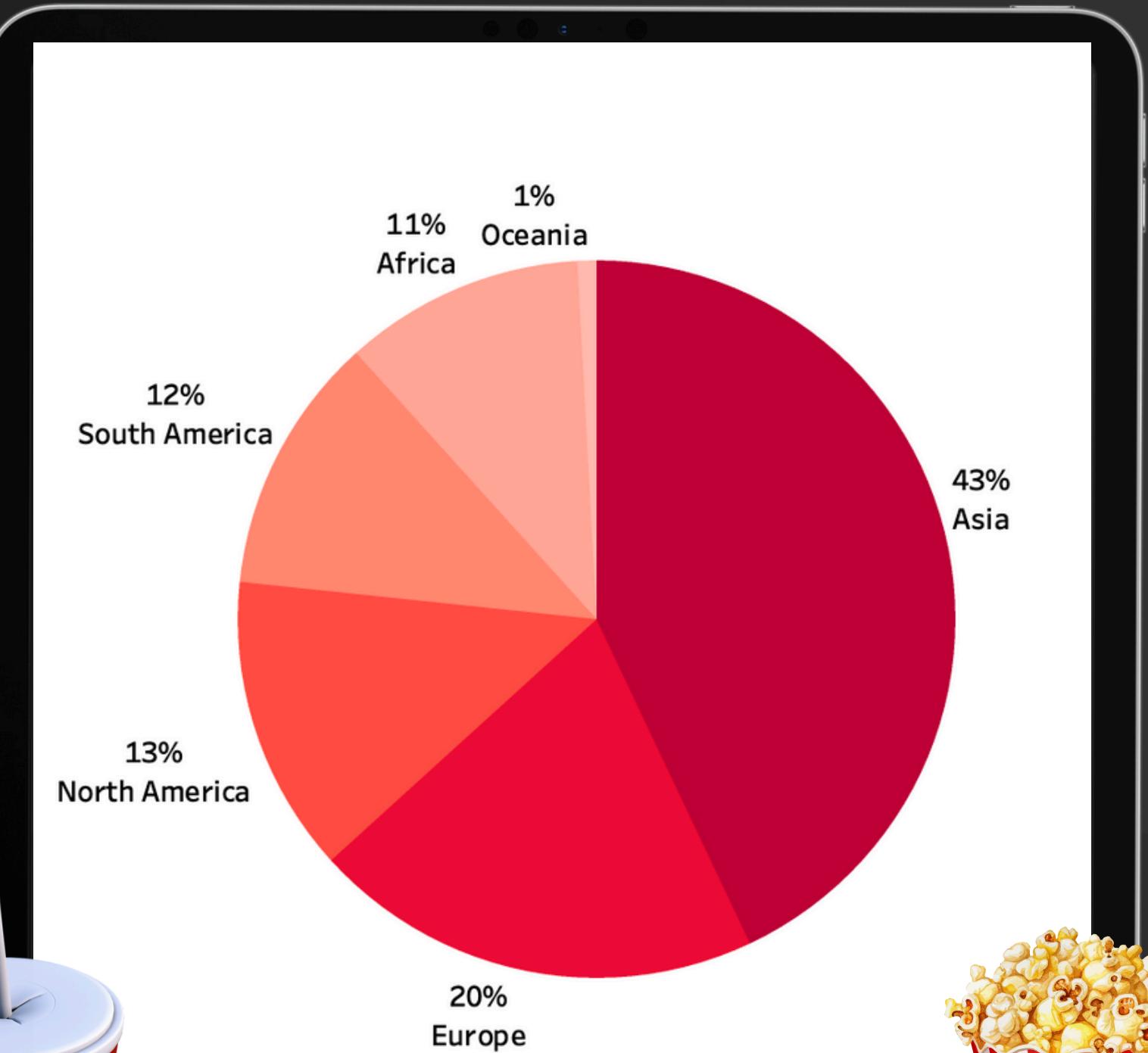
## Sales Figures

### Do sales figures vary between geographic regions?

The piechart groups all countries in their continental areas.

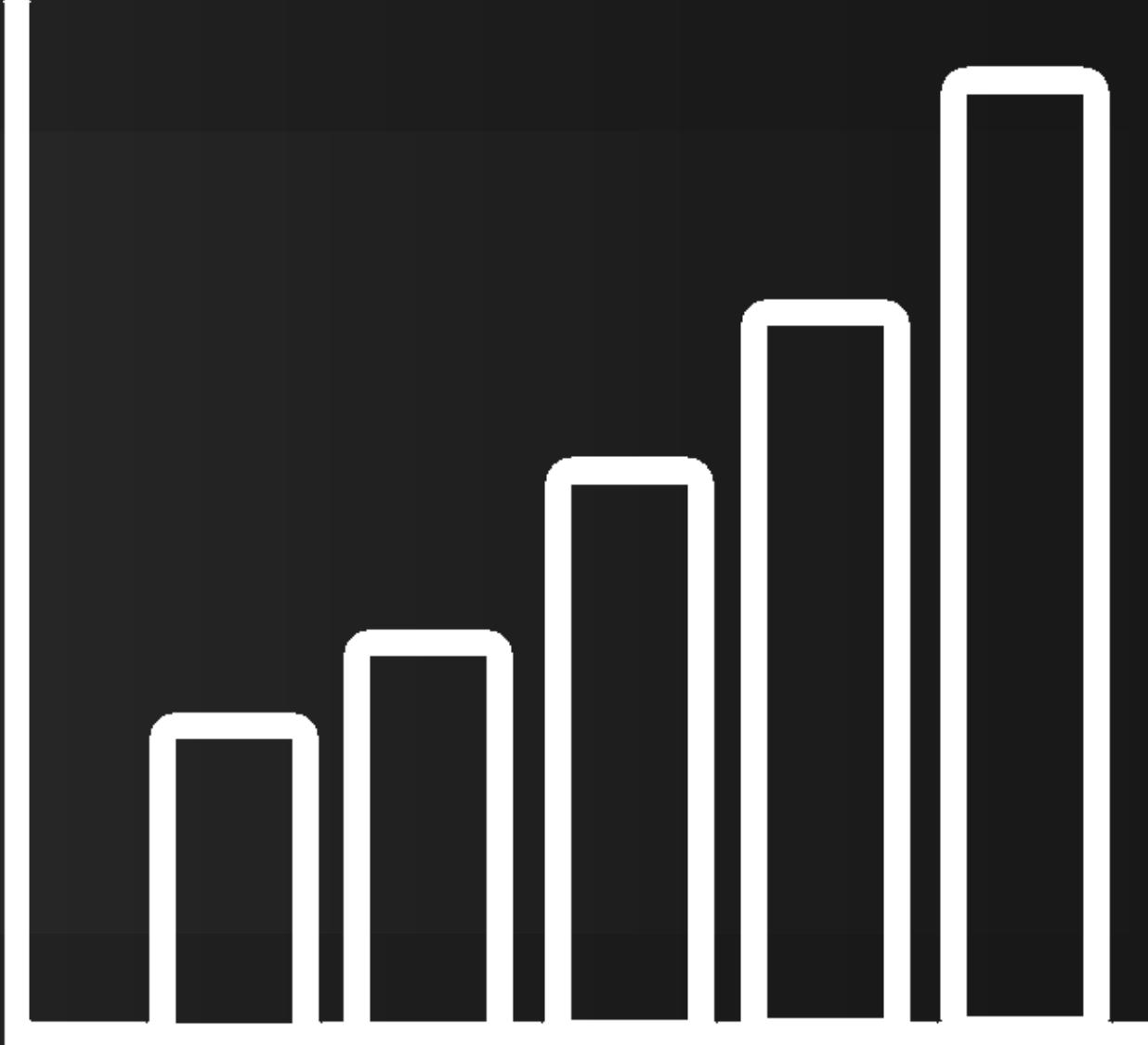
- Asia (43%)
- Europe (20%)
- North America (13%)
- South America (12%)
- Africa (11%)
- Oceania (1%)

Sales figures vary strongly between geographical areas, when looking at gap between of Asia, Europe and North America. It can be said that **Asia** accounts a higher sales than Europe and North America together.





## Basic Statistic Measurements



**What does these basic statistics tell us?**

### Rental\_Rate

Maximum: 4.99\$  
Minimum: 0.99\$  
Average: 2.98\$

### Rental\_Duration

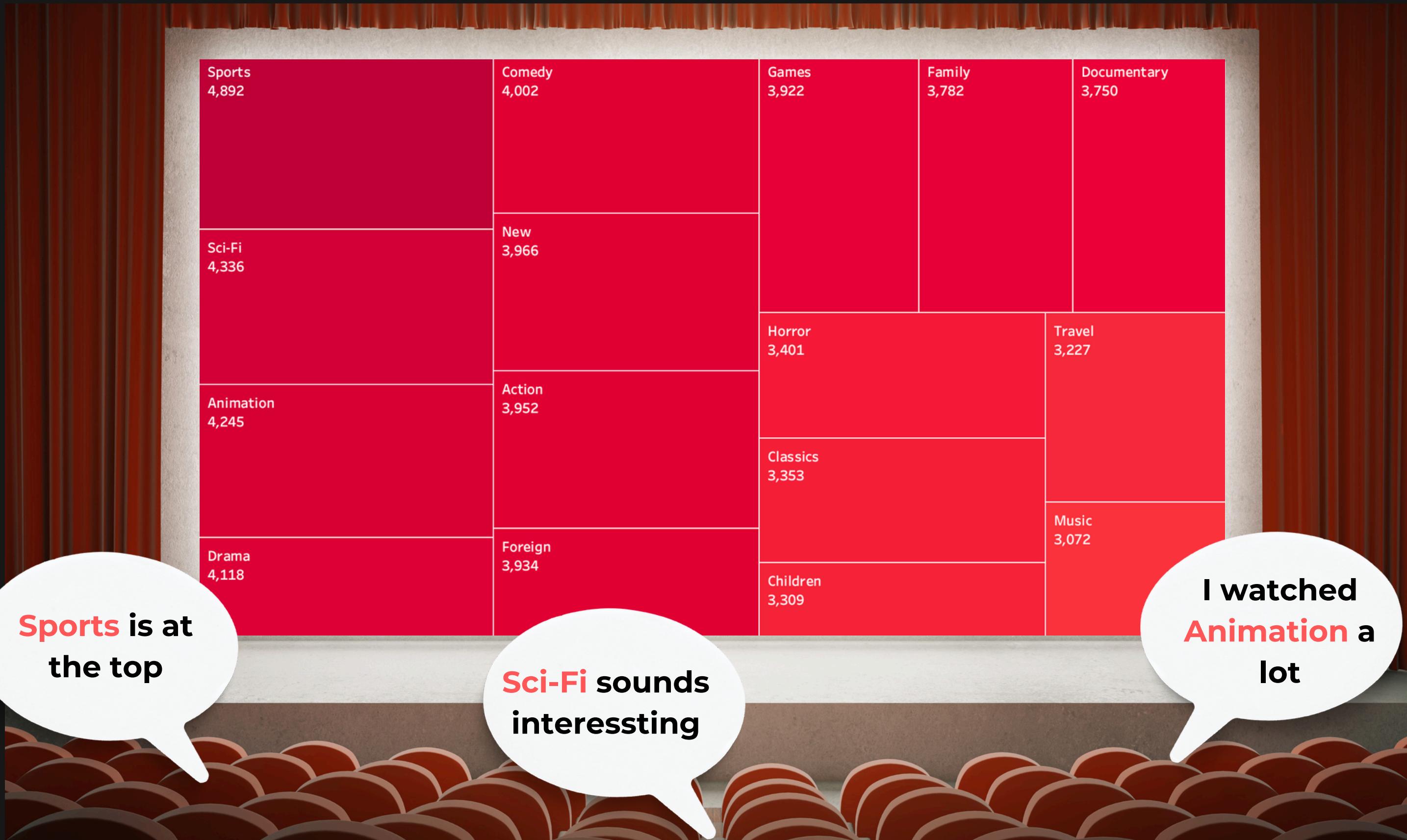
Maximum: 7 Days  
Minimum: 3 Days  
Average: 4.99 Days

Observing these measurements overtime can help to adapt the companies strategy and optimize pricing



Genre

# What genres made the highest sales?





## Rating

# Which ratings have the highest sales within the top genres?

1.  
2.  
3.  
4.  
5.

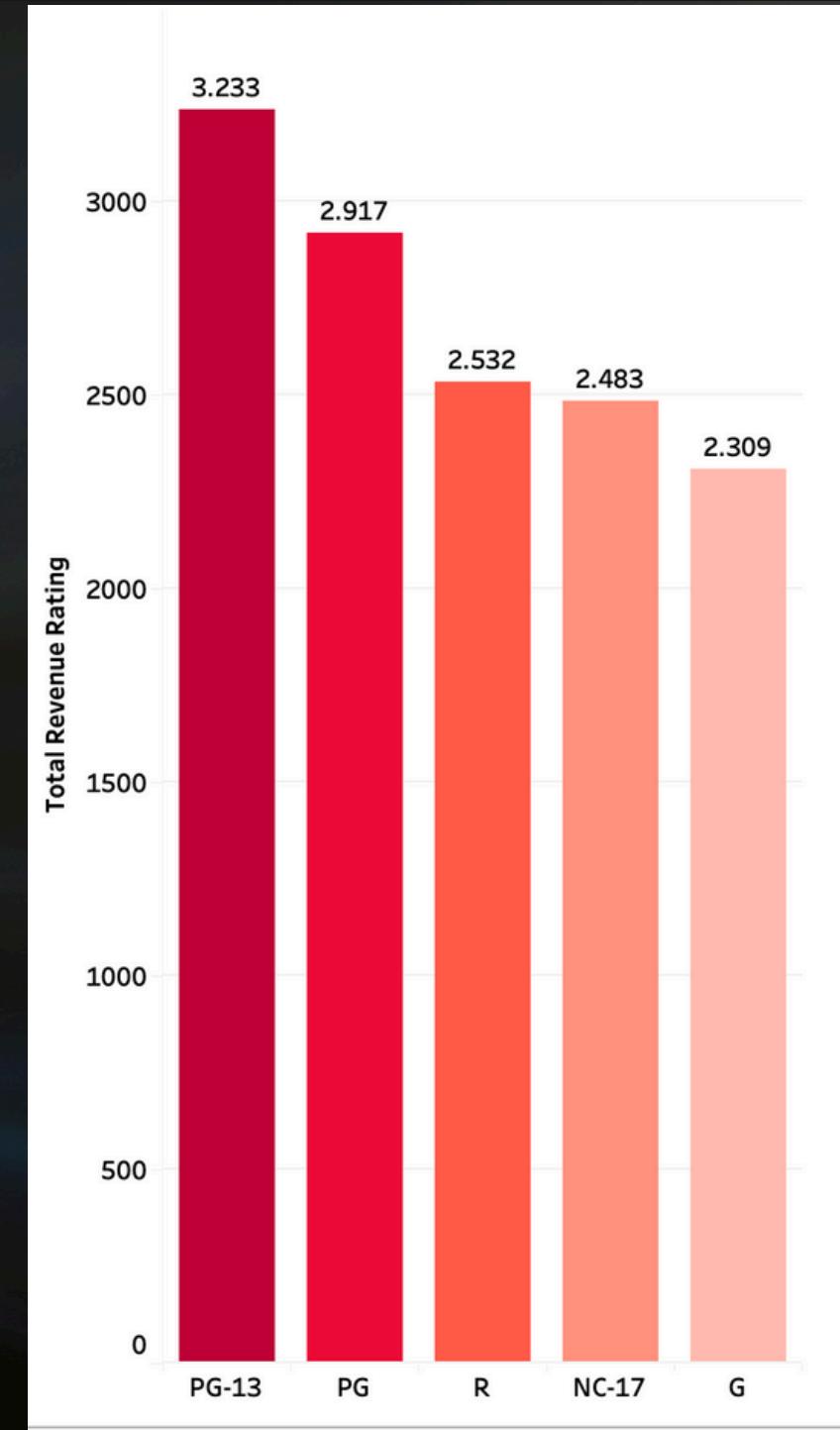
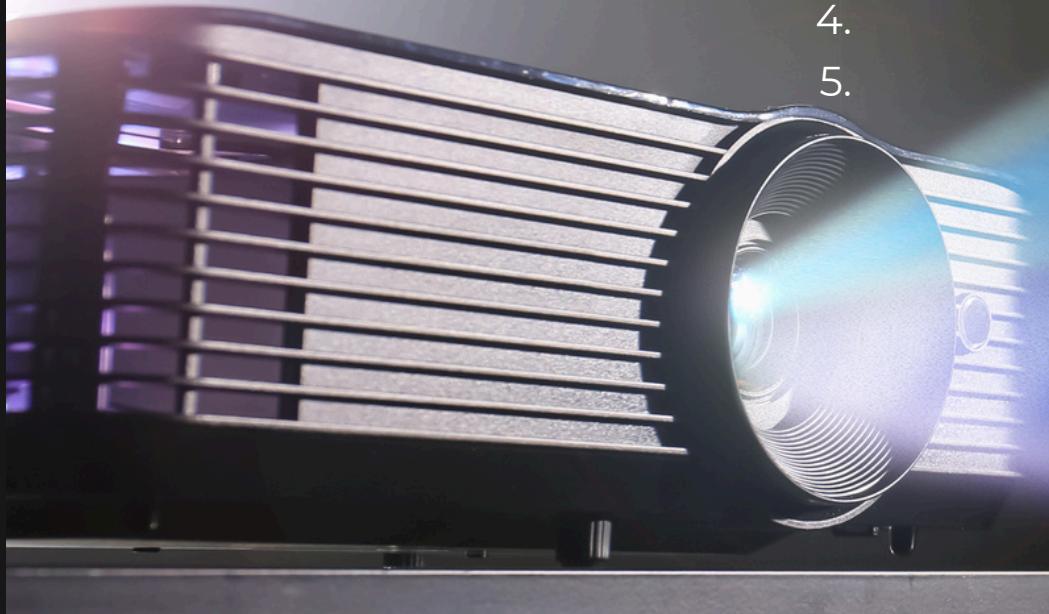
**PG-13:** Inappropriate for children under 13

**PG:** Parents should provide supervision

**R:** Restricted to viewer over 18

**NC-17:** No one under 17

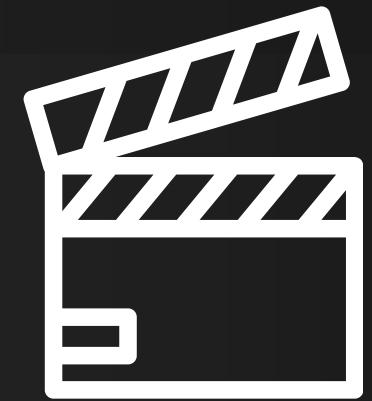
**G:** Suitable for all viewers





## Results

# Findings and Results



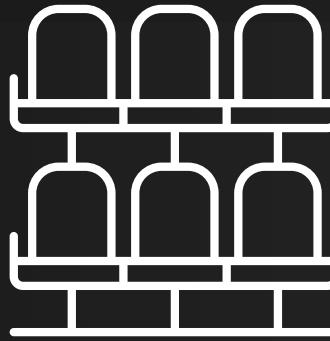
## Top Genres/Ratings

- Movies in the Sports, Sci-Fi and Animation account the highest sales
- PG-13, PG, R are the most represented within the top 5 genres



## Asia on Demand

- Asia accounts the highest sales value for 2019

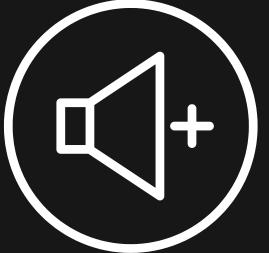


## Watch USA

- Highest LTV
- Top 3 countries most customers
- Top 5 customer based in the US



## Recommendations



# How to perform in 2025?

Increasing online store by movies of the following genres **Sports**, **Sci-Fi** and **Animation** and promoting them on the website.

Selecting movies for the online streaming service by paying attention to the mpaa\_rating (**PG-13**, **PG**, **R**) and keeping track of changes.

Potential raise of the average price (**2.98\$**) and rental duration of (**5 Days**) movies by implementing bigger price difference between latest and older movies.



**Asia** contributes **40%** of the total revenue, keeping the performance up to assure that Asia stays sustainable for Rockbusters. Furthermore, investing time and money in marketing to raise the sales figures across lower performance regions.

Conducting social media campaigns and lotteries for customers based within **high-LTV** countries like **Reunion**, **USA**, **Brazil** and **Top 5 Customers** around the world to reward their loyalty and increase the LTV over time.

Executing an analysis of competitors (Netflix, Amazon Prime) performance to identify potential **niche markets**, strength and weak points for adapting marketing strategy.

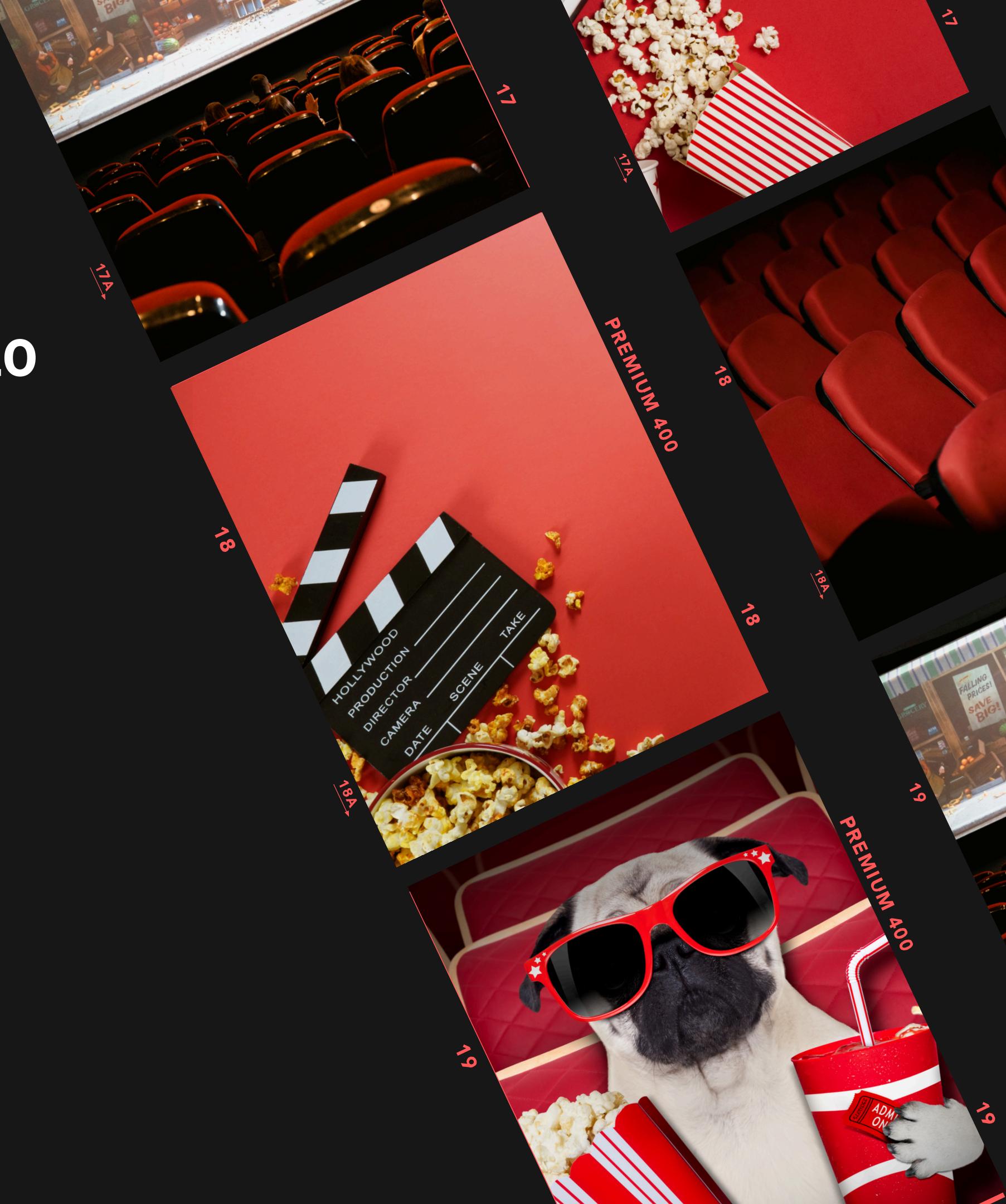


## Conclusion

# Online Movie Rental Service 2020

Rockbuster can launch their online movie rental service with a head start by performing in way a considering the statements in the recommendation section.

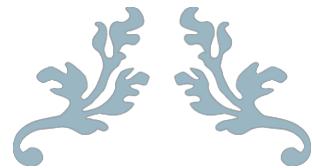
Press Play for 2025





**THANK YOU**

FOR BEING HERE WITH ME TODAY



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# DATA DICTIONARY

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By Daniel Mueller



SEPTEMBER 1, 2024  
ROCKBUSTER STEALTH LLC



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# 1 ERD (Entity Relationship Diagram)



## 2 Legend

	<b>Primary key</b>	A primary key is a unique identifier for each record in a database table, ensuring that no two records can have the same value in this column or set of columns.
	<b>Foreign key</b>	A foreign key is a column or set of columns in a database table that establishes a link between data in two tables, enforcing referential integrity by referencing the primary key of another table.

## 3 Tables

### 3.1 Fact Tables

#### 3.1.1 Payment

payment			
Columns	Key	Data Type	Description

payment_id		SERIAL	The column stores the id of the payment
customer_id		SMALLINT	The column stores the id of the customer
staff_id		SMALLINT	The column stores the id of the staff
rental_id		INTEGER	The column stores the id of the rental invoice
amount		NUMERIC (5,2)	The column stores the information of the amount of payment with decimal point
payment_date		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores information when the payment must be done. Just the date, no time zone
<b>Links to</b>			
<a href="#">Rental</a> <a href="#">Customer</a> <a href="#">Staff</a>			
<b>Links from</b>			
-			

### 3.1.2 Rental

rental			
Columns	Key	Data Type	Description
rental_id		SERIAL	The column stores the rental ID of the movies
rental_date		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores information when the film was rented

inventory_id		INTEGER	The column stores the id of the inventory
customer_id		SMALLINT	The column stores the id of the customer
return_date		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores date when a film was returned
staff_id		SMALLINT	The column stores the id of the staff
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
Inventory Customer Staff			
<b>Links from</b>			
Payment			

### 3.1.3 Inventory

inventory			
Columns	Key	Data Type	Description
inventory_id		SERIAL	The column stores the id of the inventory
film_id		SMALLINT	The column stores the film id of the movies
store_id		SERIAL	The column stores the id of the store
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			

Film
Links from
Rental

### 3.1.4 Film category

film_category			
Columns	Key	Data Type	Description
film_id	 	SMALLINT	The column stores the film id
category_id	 	SMALLINT	The column stores the category id of the movies
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
Links to			
Film			
Category			
Links from			
-			

### 3.1.5 Film actor

film_actor			
Columns	Key	Data Type	Description
actor_id	 	SMALLINT	The column stores the id of the actors
film_id	 	SMALLINT	The column stores the film id

last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
Film Actor			
<b>Links from</b>			
-			

## 3.2 DIMENSION TABLES

### 3.2.1 Actor

actor			
Columns	Key	Data Type	Description
actor_id		SERIAL	The column stores the id of the actors
first_name		CHARACTER VARYING(45)	The column stores the first name of the actor (max. 45 char.)
last_name		CHARACTER VARYING(45)	The column stores the last name of the actor (max. 45 char.)
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
-			
<b>Links from</b>			
Film Actor			

### 3.2.2 Film

film			
Columns	Key	Data Type	Description
film_id		SERIAL	The column stores the film id
title		CHARACTER VARYING(225)	The column stores the title of the film (max. 225 char.)
description		TEXT	The column stores a description of the film with a variable-length character string
release_year		Year	The column stores the year when the film was released
language_id		SMALLINT	The column stores the language id of the film
rental_duration		SMALLINT	The column stores the rental duration of the film. How long was it rented for?
rental_rate		NUMERIC (2,4)	The column stores information of the rental rate. How often a film was rented for?
length		SMALLINT	The column stores information of length of the movie.
replacement_cost		NUMERIC (5,4)	The column stores information of the costs if the film is damaged or broken after a rental
rating		Mpaa_rating	The column stores the film ratings (e.g. G, PG, PG-13, R, NC-17)
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
special_features		TEXT()	The column stores information about any special feature of the film (e.g. trailers, comments, deleted scenes)
fulltext		TSVECTOR	The column stores prompt about the movie

Links to
Inventory Film Actor
Links from
Language

### 3.2.3 Language

language			
Columns	Key	Data Type	Description
language_id		SMALLINT	The column stores the language id of the film
name		CHARACTER VARYING(20)	The column stores the languages of the film (max. 45 char.)
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation

### 3.2.4 Category

category			
Columns	Key	Data Type	Description
category_id		SMALLINT	The column stores the category ID of the movies
name		CHARACTER VARYING(25)	The column stores the category of the film (e.g. action) (max. 45 char.)

last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
-			
<b>Links from</b>			
<b>Film Category</b>			

### 3.2.5 Customer

customer			
Columns	Key	Data Type	Description
customer_id		SERIAL	The column stores the id of the customer
store_id		SMALLINT	The column stores the id of the store
first_name		CHARACTER VARYING(45)	The column stores the first name of the customer (max. 45 char.)
last_name		CHARACTER VARYING(45)	The column stores the last name of the customer (max. 45 char.)
email		CHARACTER VARYING(50)	The column stores the last email address of the customer (max. 50 char.)
address_id		SMALLINT	The column stores the address id of the customer
activebool		BOOLEAN	The column stores true or false values
create_date		Date	The column stores the date when the dataset of the customer was created
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
active		INTEGER	The column stores the numbers for activity
<b>Links to</b>			

<b>Address</b>
<b>Links from</b>
<b>Payment</b>
<b>Rental</b>

### 3.2.6 Staff

staff			
Columns	Key	Data Type	Description
staff_id		SERIAL	The column stores the id of the staff
first_name		CHARACTER VARYING(45)	The column stores the first name of the staff (max. 45 char.)
last_name		CHARACTER VARYING(45)	The column stores the last name of the staff (max. 45 char.)
address_id		SMALLINT	The column stores the address id of the staff
email		CHARACTER VARYING(50)	The column stores the last email address of the staff (max. 50 char.)
store_id		SMALLINT	The column stores the id of the store
username		CHARACTER VARYING(16)	The column stores the last username used by the staff (max. 16 char.)
password		CHARACTER VARYING(16)	The column stores the last password selected by the staff (max. 40 char.)
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
picture		BYTEA	The column stores a picture of staff
<b>Links to</b>			
<b>Address</b>			

Links from
Payment
Rental

### 3.2.7 Store

store			
Columns	Key	Data Type	Description
store_id		SERIAL	The column stores the id of the store
manager_staff_id		SMALLINT	The column stores the id of manger of the staff
address_id		SMALLINT	The column stores the address id of the store
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
Links to			
Address Staff			
Links from			
-			

### 3.2.8 Address

address			
Columns	Key	Data Type	Description
address_id		SERIAL	The column stores the address id of the staff

address		CHARACTER VARYING(50)	The column stores the first address of the staff (max. 50 char.)
address 2		CHARACTER VARYING(50)	The column stores additional information about address (max. 50 char.)
district		CHARACTER VARYING(20)	The column stores the district where the staff lives
city_id		SMALLINT	The column stores the id of the city
postal_code		CHARACTER VARYING(10)	The column stores the postal code of the city (max. 10 char.)
phone		CHARACTER VARYING(20)	The column stores the last phone number of the staff (max. 20 char.)
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
City			
<b>Links from</b>			
Customer Staff Store			

### 3.2.9 City

city			
Columns	Key	Data Type	Description
city_id		SERIAL	The column stores the id of the city
city		CHARACTER VARYING(50)	The column stores the name of city (max. 50 char.)

country_id		SMALLINT	The column stores the id of the country where the city is located
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
<b>Address</b>			
<b>Links from</b>			
<b>Country</b>			

### 3.2.10 Country

country			
Columns	Key	Data Type	Description
country_id		SERIAL	The column stores the id of the country
country		CHARACTER VARYING(50)	The column stores the name of country (max. 50 char.)
last_update		TIMESTAMP (6) WITHOUT TIME ZONE	The column stores the time of the last data manipulation
<b>Links to</b>			
-			
<b>Links from</b>			
<b>City</b>			