Rockbuster Stealth Project

Answering business questions for an online video rental company

Case Study 3

Project Overview

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.

Objective

The Rockbuster Stealth Management Board has asked a series of business questions that need data-driven answers they can use for their 2020 company strategy. The data needs to be visualised in an easy-to-consume manner.

Key Questions

➢ 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?

Data & Tools

Open-source datasets from Rockbuster, including e.g. film inventory, customers and payment, accessed from zip file.

Excel Report KL//RockbusterStealthDataTechnical
PostgeSQL Database Queries Github Project Overview

KL Data Dictionary

Business Status Quo

- ➢ 599 customers in 108 countries generating >$61K Revenue
- ➢ 1000 available films (mostly english language and PG-13)
- ➢ Customers rent films for ~5 days on average at a rate of $2.98
- ➢ There are 2 physical stores, one in Canada and one in Australia

Remark on data quality: All customers were entered into the data base with the exact same time stamp 2/14/2006 12.00.00AM which points to a bulk upload of data which is likely not reflecting the real customer acquisition date.

All films in the data base have the same release year `2006 which could either be a data quality issue or it might have been a competitive advantage in 2006 and should be evaluated moving forward.
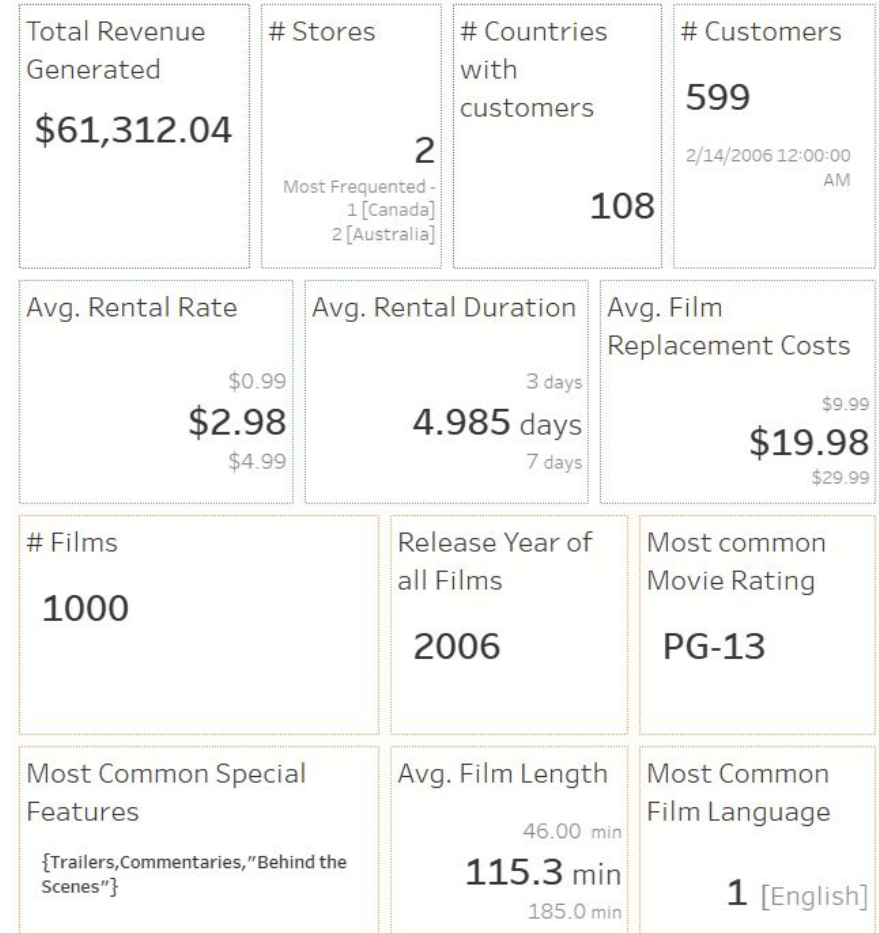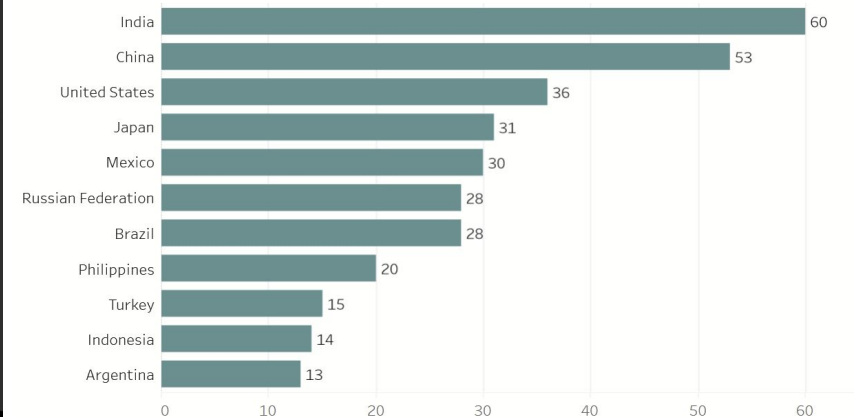
Rockbuster's Customer base

Total Payment
$47.85 $6,034.78

Customer Count
• 1
• 20
• 40
• 60
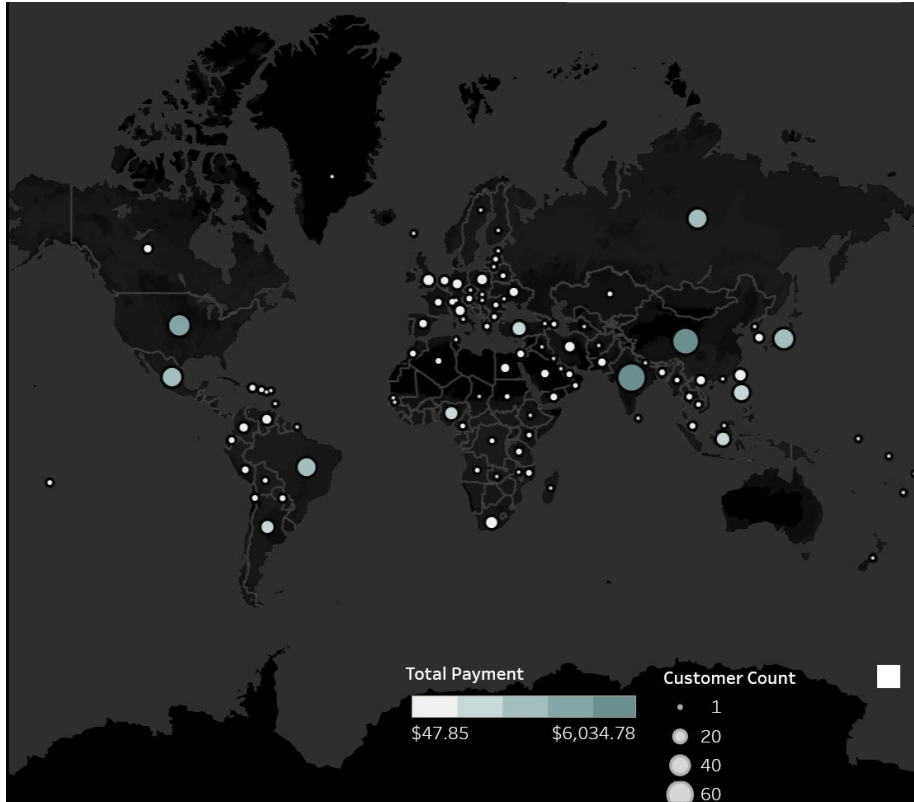
> ➢ Rockbuster has 599 customers in 108 countries around the world.
> ➢ The customer base is fairly decentralised. For reference, there are 41 - countries with just 1 single customer.
> ➢ There is no specific city among the top 1 countries that stands out
> ➢ The top 5 customers are located in 5 different countries

Top 10 Countries by #Customer

Country	#Customer
India	60
China	53
United States	36
Japan	31
Mexico	30
Russian Federation	28
Brazil	28
Philippines	20
Turkey	15
Indonesia	14
Argentina	13

Rockbuster Summary & Recommendations

Rockbuster's current customer base is very decentralised across the globe.

While this shows a very big market potential for Rockbuster, a focus on the most successful core markets with a dedicated marketing strategy could help boost brand awareness and increase the customer base more strategically.

The product portfolio should also be checked and updated in this regard.

This will be crucial if Rockbuster wants to compete with other well-known streaming services in the future.

As a follow up on the posed data quality questions, it would be recommended to check up on the update schedule and restrictions of Rockbuster's database to ensure that all data is up-to-date and correct.

My Project Reflections

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This project gave me the opportunity to work with a relational database management system and make use of SQL to answer the business questions. The entity relationship diagram became my best friend (I considered making it my screensaver ;)) in understanding the database relations and ultimately building the data dictionary. I really appreciated the efficiency of writing queries to extract information from multiple tables and the challenge to make that code clean, easy-to-understand and time/cost-efficient. I'm not convinced Rockbuster could take on Netflix or Amazon prime any time soon, but it was a nice example of a smaller company database and its use cases for data analytics.

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