

ROCKBUSTER STEALTH LLC

Movie Rental Company

A movie rental company is planning to launch an online video rental service and needs analyses on their existing customer database to help them develop an effective launching strategy.

Click the links to view:

[Tableau Storyboard](#) | [Github Repository](#)
[Data Dictionary](#)

Project Overview

Customer's historical pattern Analysis

- Descriptive analyses of movie sales
- Customer behavior and loyalty investigation
- Customer geographical distribution

Data

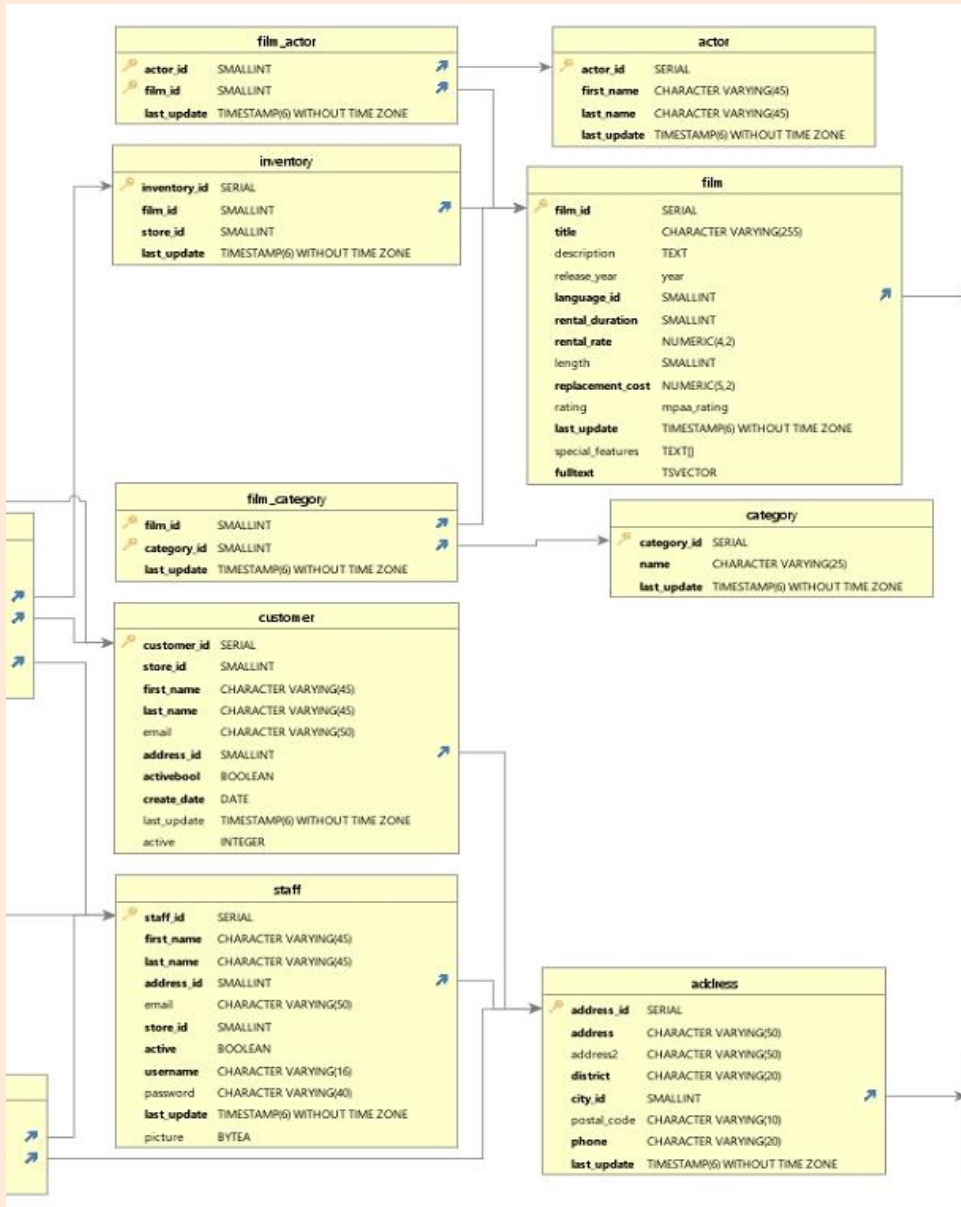
- Dataset: 15 Tables from TAR file
- Film-relevant: Titles, Categories, Languages, Actors, Inventory
- Customer-relevant: Rental, Payment, Stores, Address, City, Country, Staffs

Skills

- SQL • Relational database management systems (RDBMS) • Database querying • Filtering • Cleaning and summarizing • Joining tables • Subqueries • Common table expressions • Data dictionary • Tableau • Excel

Data Dictionary

Apply DB Visualizer to investigate the relationship among datasheets and further segment them into fact and dimension tables



2. Fact tables

2.1 Payment

Columns

Key	Column	Data Type	Description
	payment_id	SERIAL	Automatically generated identification number to individual payment
	customer_id	SMALLINT	Unique identification number assigned to individual customer
	staff_id	SMALLINT	Unique identification number assigned to individual staff member
	rental_id	INTEGER	Unique identification number assigned to individual rental
	amount	NUMERIC(5,2)	Total amount paid
	payment_date	TIMESTAMP(6) WITHOUT TIME ZONE	Autogenerated latest updated date

3. Dimension tables

3.1 Category

Columns

Key	Column	Data Type	Description
	category_id	SERIAL	Automatically generated identification number to individual genre
	name	CHARACTER VARYING (25)	Genre's name
	last_update	TIMESTAMP(6) WITHOUT TIME ZONE	Autogenerated latest updated date

Linked from

Key	Table	Join
	film_category	film_category.category_id = category.category_id

SQL Coding & Output

Write INNER JOIN statements to extract the information of top 10 loyal customers

Query Editor	Query History	Scratch Pad
1	-- Who are our top 10 most loyal customers?	
2		
3	SELECT A.customer_id,	
4	B.first_name,	
5	B.last_name,	
6	D.city,	
7	E.country,	
8	SUM(amount) AS total_amount_paid	
9	FROM payment A	
10	INNER JOIN customer B ON A.customer_id = B.customer_id	
11	INNER JOIN address C ON B.address_id = C.address_id	
12	INNER JOIN city D ON C.city_id = D.city_id	
13	INNER JOIN country E ON D.country_ID = E.country_ID	
14		
15	GROUP BY A.customer_id,	
16	B.first_name,	
17	B.last_name,	
18	E.country,	
19	D.city	
20	ORDER BY SUM(amount) DESC	
21	LIMIT 10	
22		

last_name	city	country	Revenue
Hunt	Saint-Denis	Runion	\$211.55
Seal	Cape Coral	United States	\$208.58
Snyder	Santa Brbara dOeste	Brazil	\$194.61
Kennedy	Apeldoorn	Netherlands	\$191.62
Shaw	Molodetno	Belarus	\$189.60
Collazo	Qomsheh	Iran	\$183.63
Bradley	Memphis	United States	\$167.67
Irby	Richmond Hill	Canada	\$167.62
Dean	Tanza	Philippines	\$166.61
Way	Valparai	India	\$162.67

Conclusion

Insights and Recommendations

Insights

- Average movie rental duration is 5 days.
- Top 10 best sellers including Telegraph Voyage, Zorro Ark, and Wifi Turn represent 3% of total revenue.
- Top 10 worst sellers such as Duffel Apocalypse, Oklahoma Jumanji only represent 0.1 % of total revenue.
- **India, China, USA, Japan, and Mexican** make up 35 % of Rockbuster's total customers.
- The top 5 genres (**Sports, Sci-Fi, Animation, Drama, Comedy**) make up 35 % of total revenue.

Recommendations

- At the beginning, only put 10 top sellers for online rental service to test the water.
- Increase media exposure or provide a discount to lure additional new customers for its top sellers. Discounts can help with pricing strategy improvement.
- Providing movies in **different language versions** and **recruiting global staffs** in concerning countries are required to expand Rockbuster's global markets.

Further Step

Track key metrics revealing how customers react to the rental service for a period and change marketing and pricing strategies according to the investigated result.