

*Tutor*

*Alaa Mostafa*

*Just IT Bootcamp : Data Analysis*

*Students*

*Raziah Quallatein Mwawanga*

*Shakirat Abimbola Badmos*

# Objectives



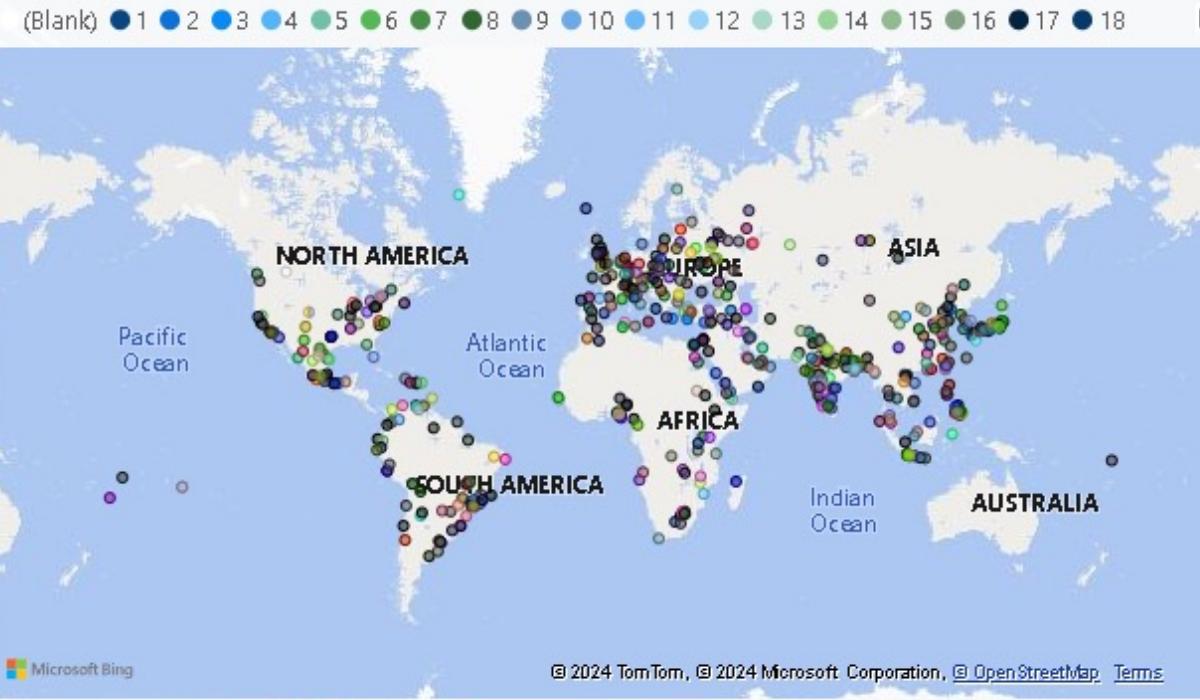
Analyse Cinemax Rentals' data using Data extracted from MySQL and Powerbi to visualise.



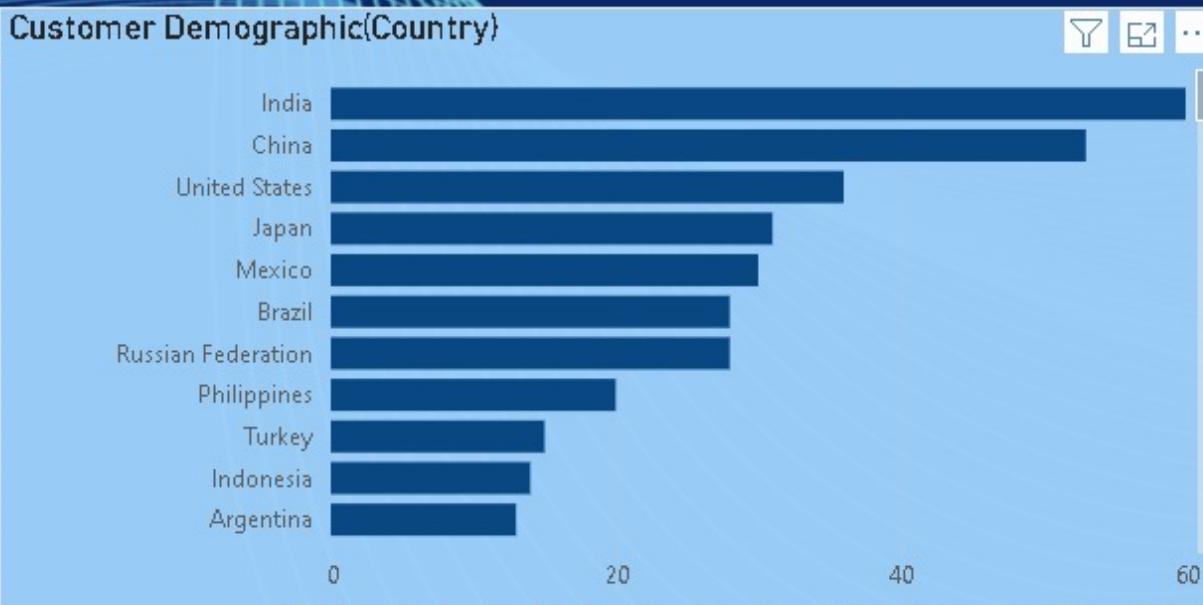
Analyse the data using descriptive, diagnostic and predictive data analysis.



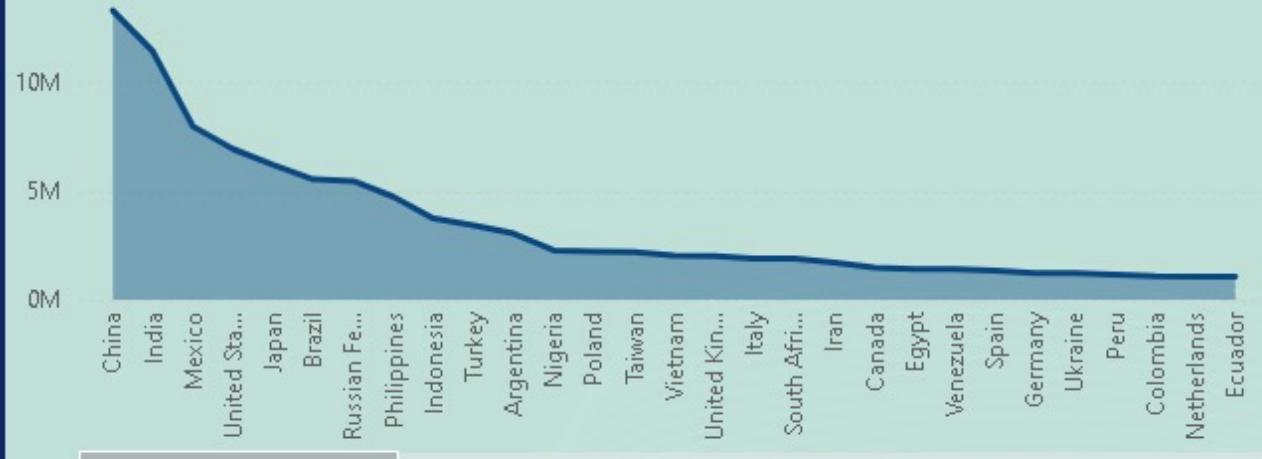
## Customers Demographic(City)



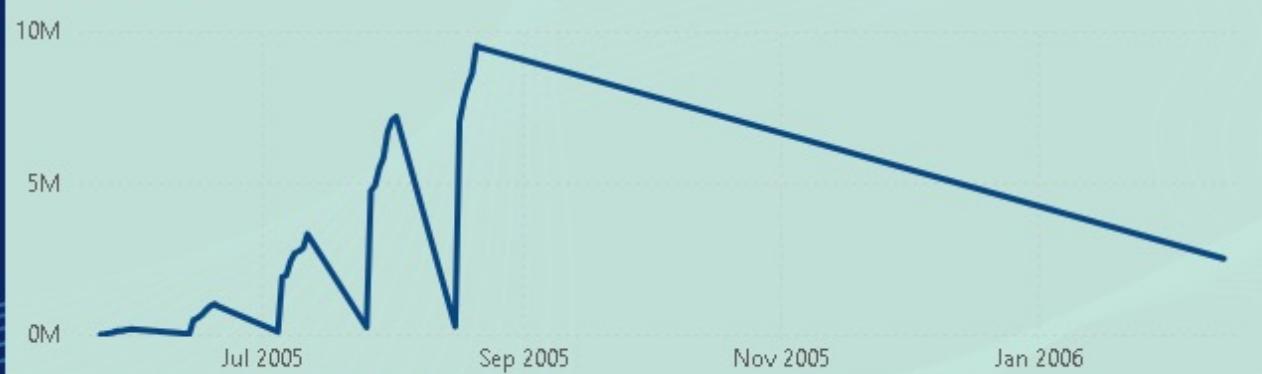
## Customer Demographic(Country)



## Payment by Country



## Rental Trends



## Forecast by Year



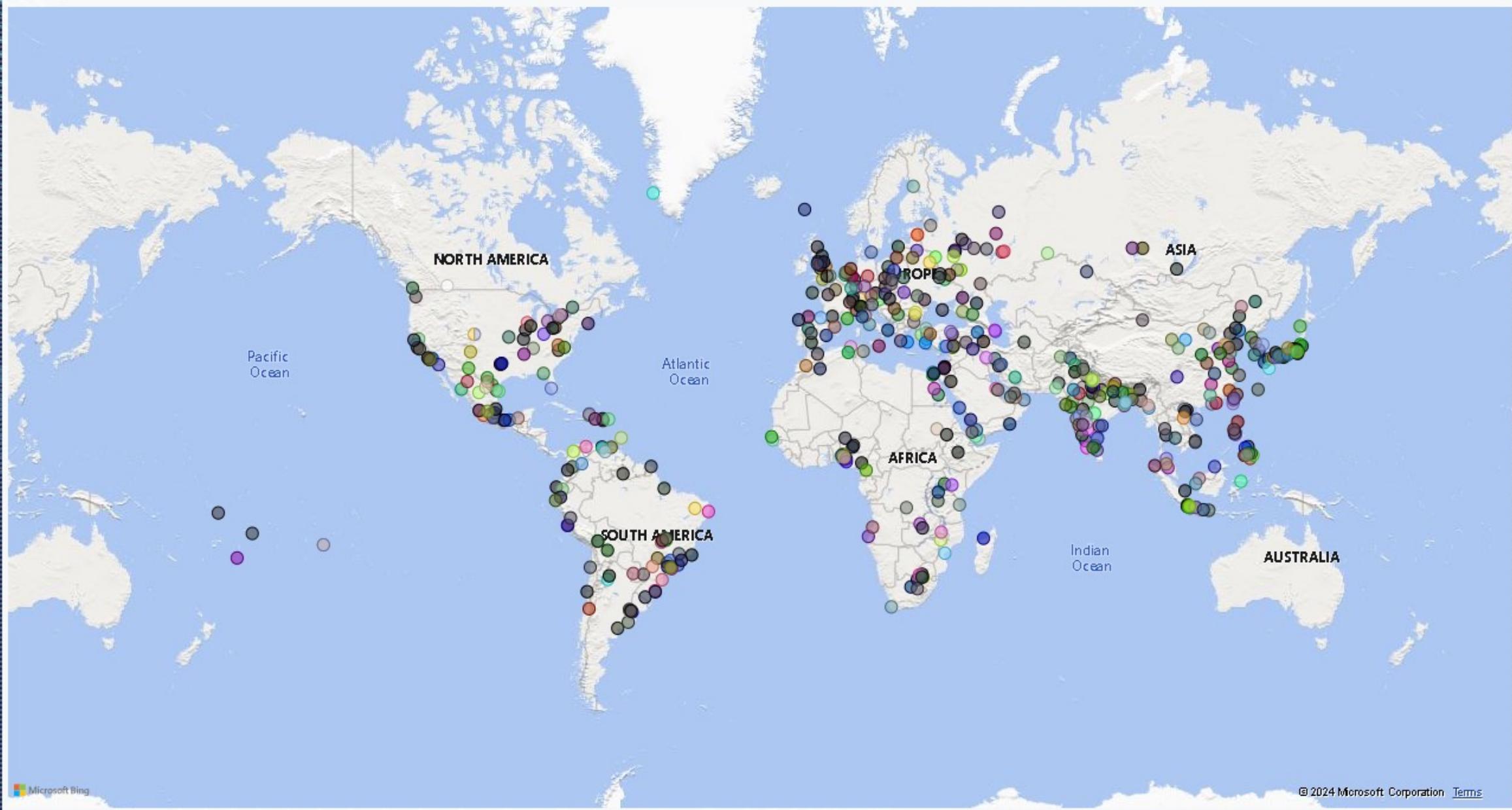
# Customer Demographics (City)

- Customers' demographics by the city show that Asian European cities have the most customers renting from CineMax Rentals.
- The South and North American cities also have more customers but fewer than the European and Asian cities.
- The African cities have fewer customers in cities renting from CineMax compared to Australian cities with no customers.



## Customers Demographic(City)

(Blank) ● 1 ● 2 ● 3 ● 4 ● 5 ● 6 ● 7 ● 8 ● 9 ● 10 ● 11 ● 12 ● 13 ● 14 ● 15 ● 16 ● 17 ● 18 ● 19 ● 20 ● 21 ● 22 ● 23 ● 24 ● 25 ● 26 ● 27 ● 28 ● 29 ● 30 ● 31 ● 32 ● 33 ● 34 ● 35 ● 36 ● 37 ● 38 ● 39



# Customer Demographics ( Country)

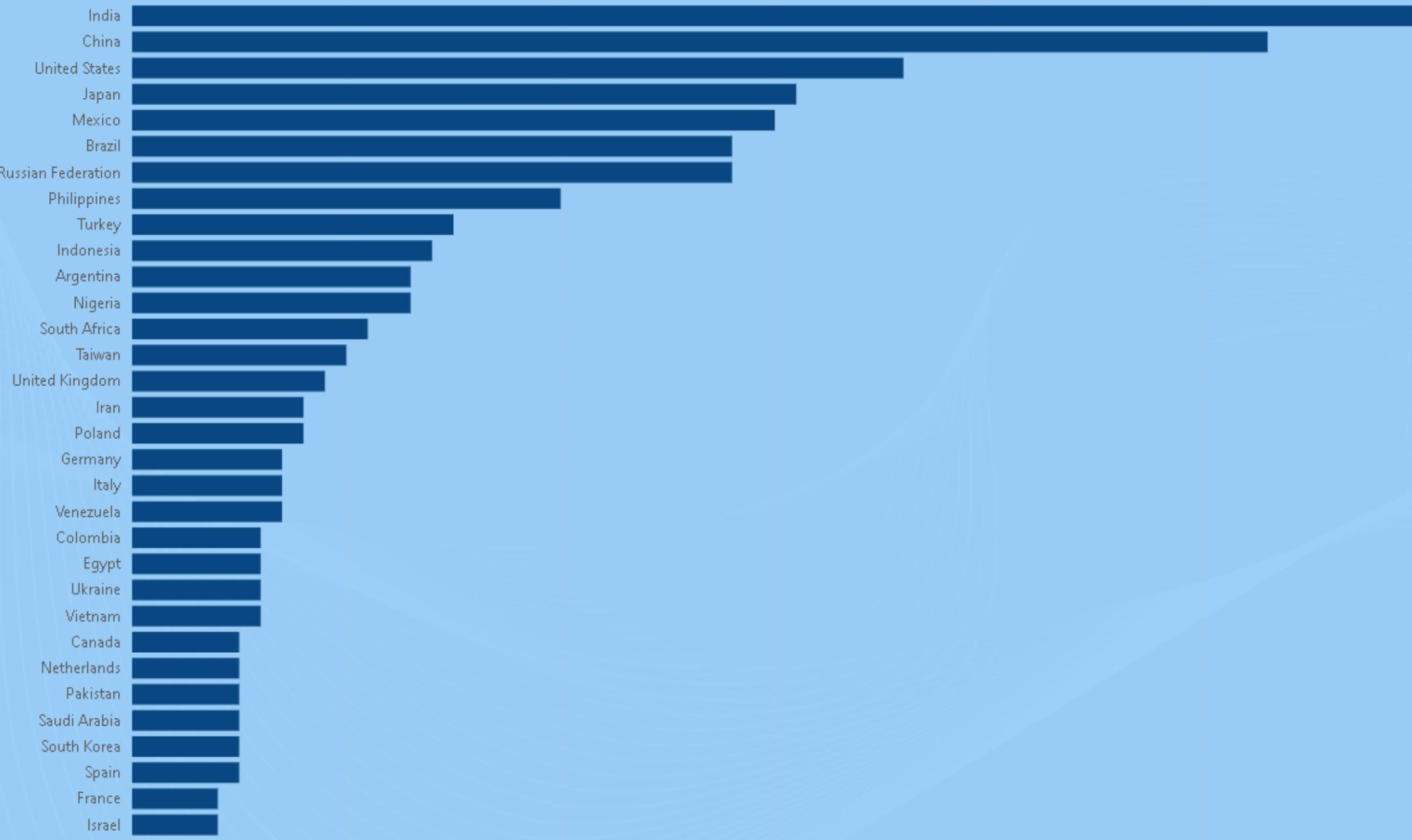
Customers' demographics by country show that India has the highest number of customers, followed by China, the United States, Japan, Mexico, Brazil, and the Russian Federation, respectively.

There are no Customers in Australia renting from CineMax Rentals.

The countries with more customers could be a result of the population of the countries.

## Customer Demographic(Country)

Y E ...



# Rental Trends

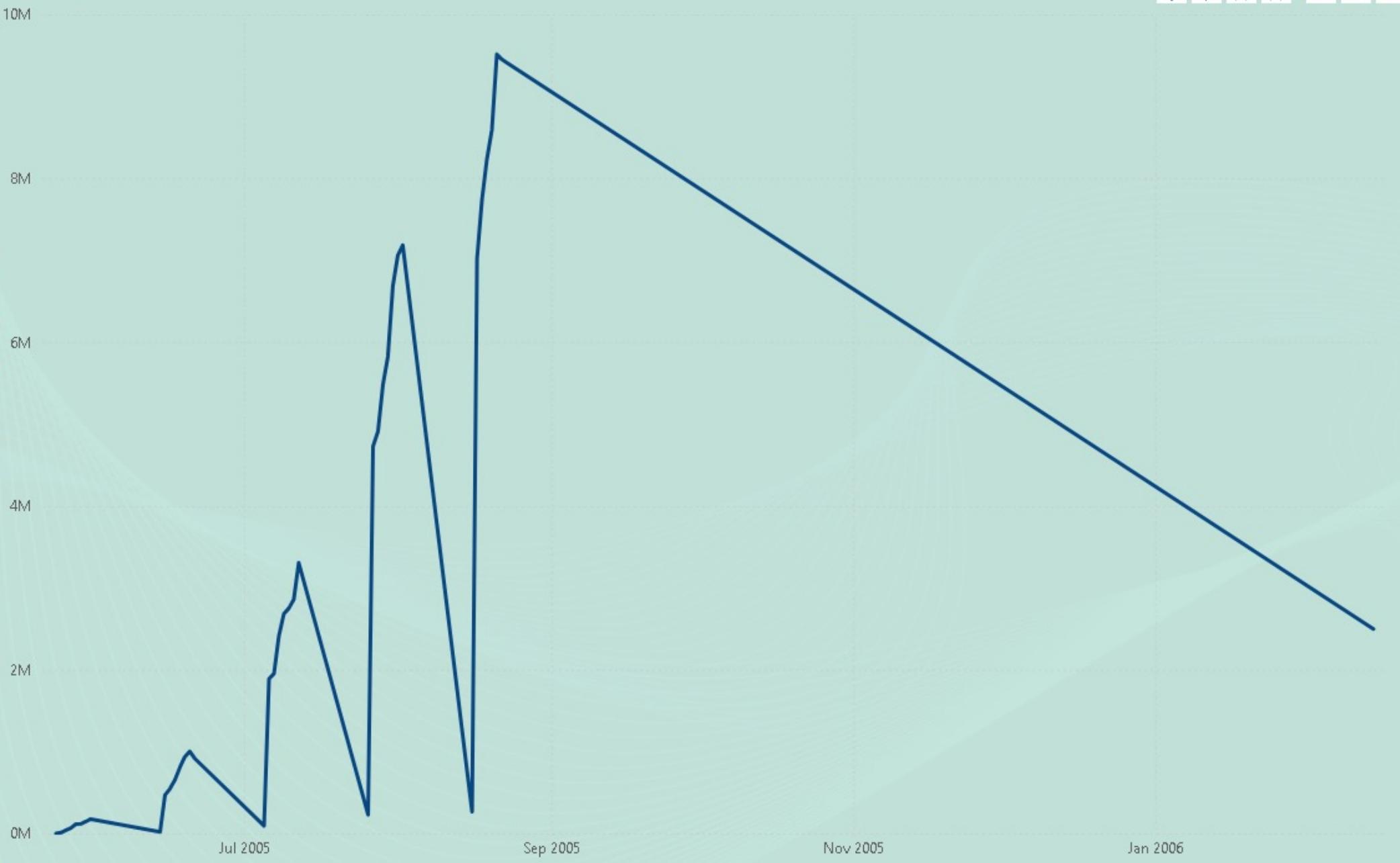
The past two years of CineMax Rentals renting have shown an unstable situation. August 2005 had the highest rentals, while May 2005 had the lowest.

New film releases could explain this trend between May 2005 and August 2006. When a new film is released, many customers rush to rent it.

Another possible reason for the decline from September 2005 could be technological advancement. As online streaming services such as Netflix, Sky, DSTV, and YouTube emerge, many people will probably stop renting and move on to the new technology.

Year	Month
2005	January
2006	January
2005	February
2006	February
2005	March
2006	March
2005	April
2006	April
2005	May
2006	May
2005	June
2006	June
2005	July
2006	July
2005	August
2006	August
2005	September
2006	September
2005	October
2006	October
2005	November
2006	November
2005	December
2006	December

## Rental Trends



# Payment Analysis

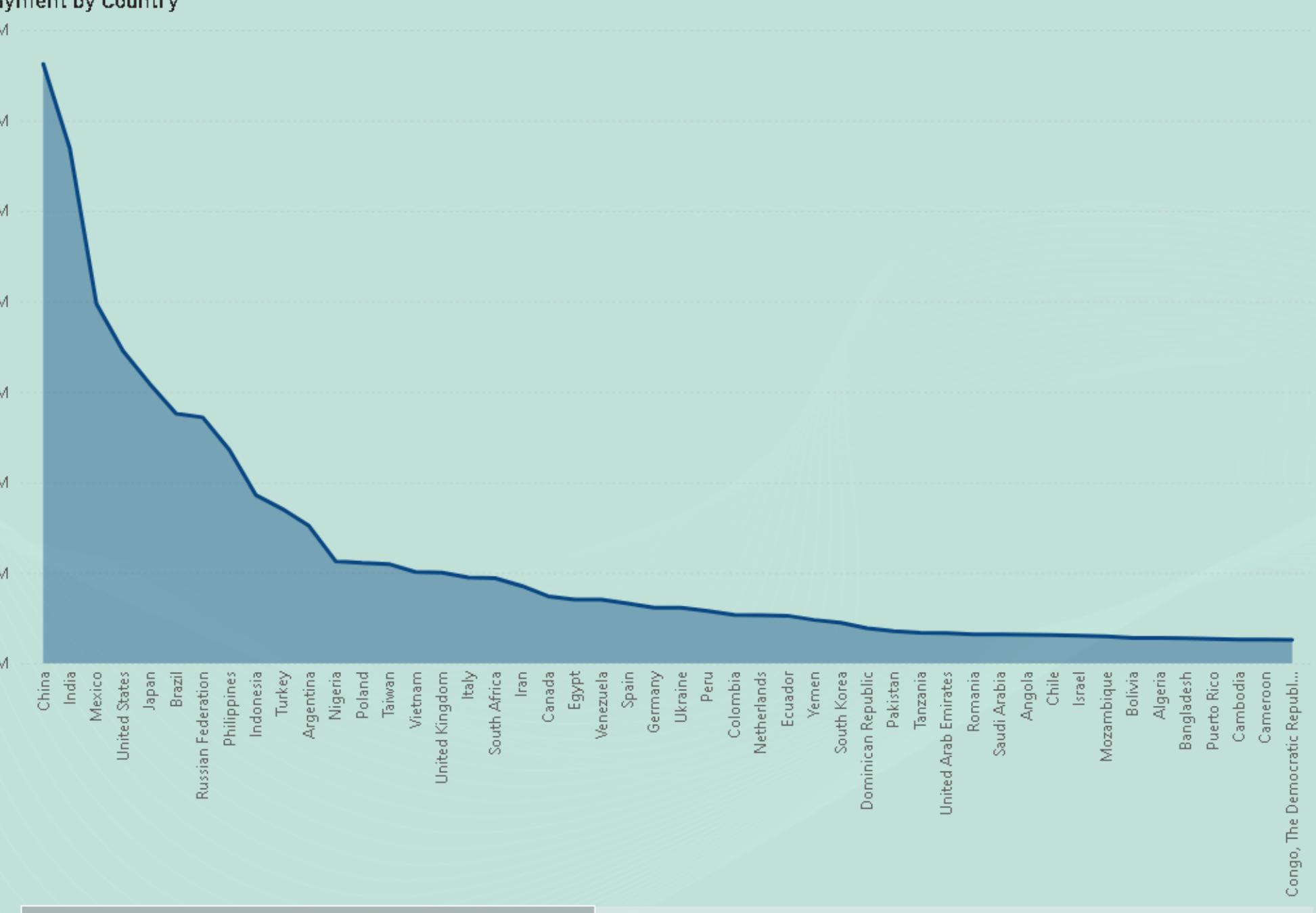
The payment visual shows that China, with 53 customers, contributed more to the revenue, followed by India, with 60 customers, the second-most contributor to the payment revenue. It does show that the number of customers is independent of an increase in revenue. Australia had no customers and did not contribute to the revenue. Zambia had 1 customer, which contributed to the revenue.

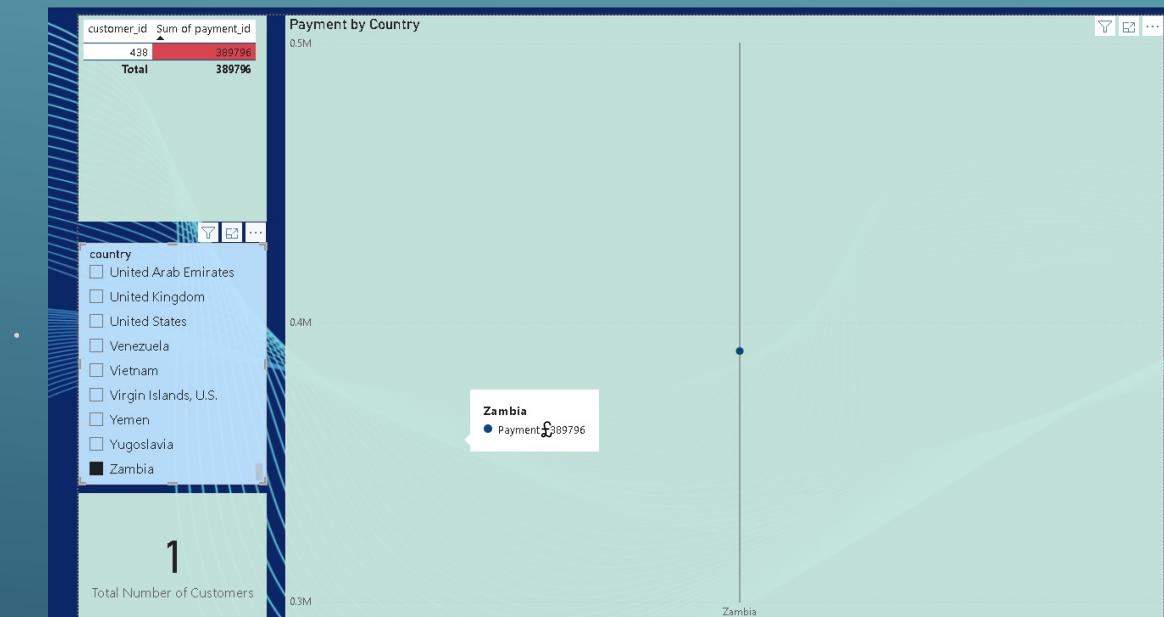
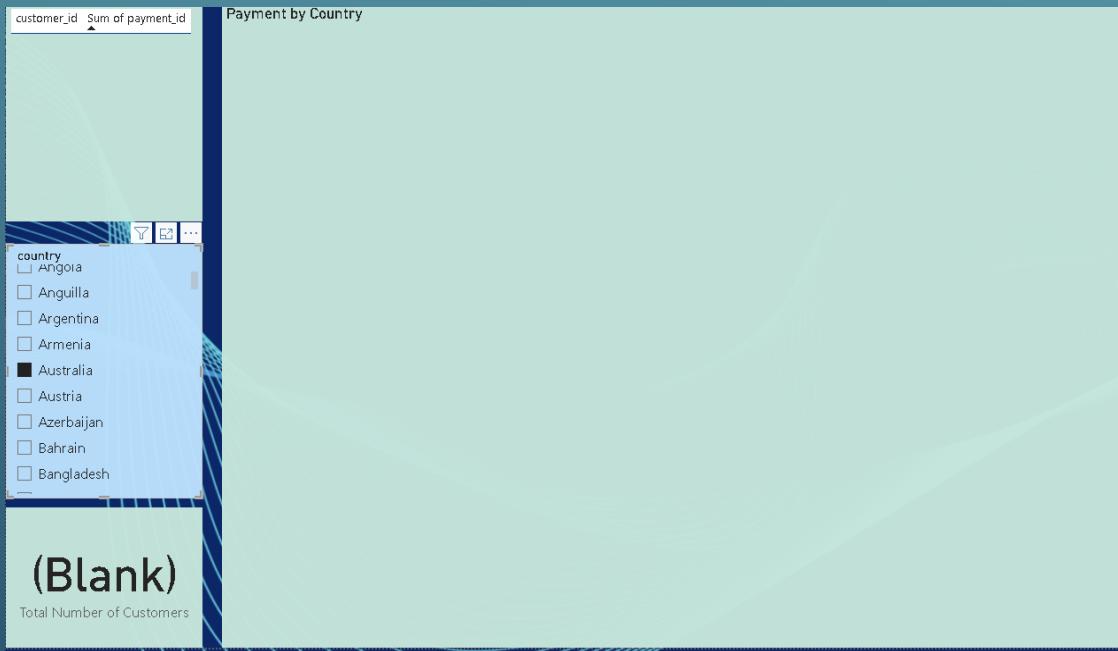
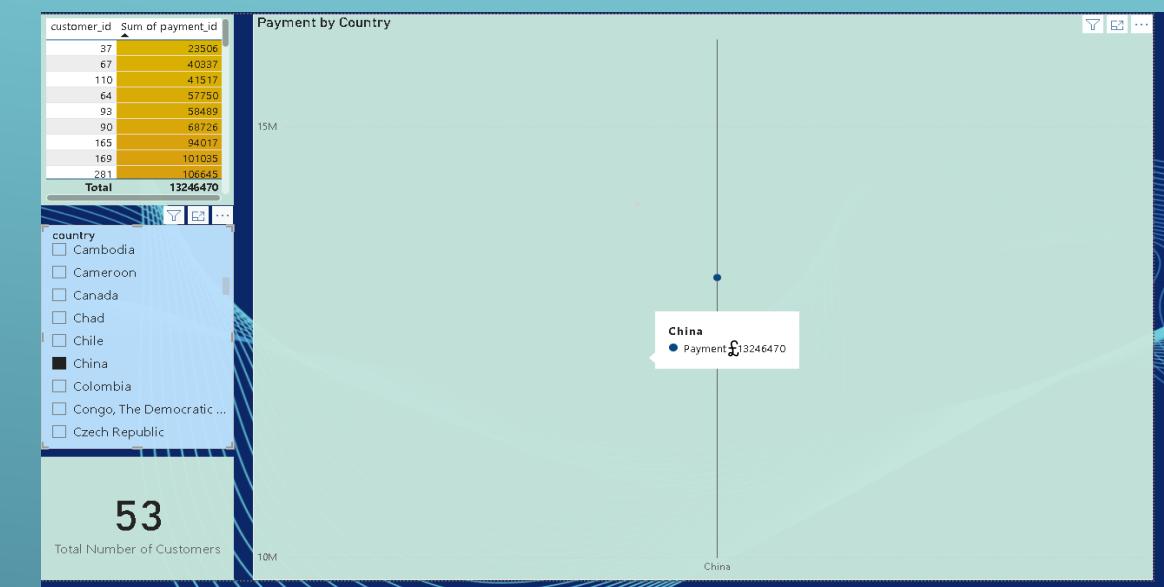
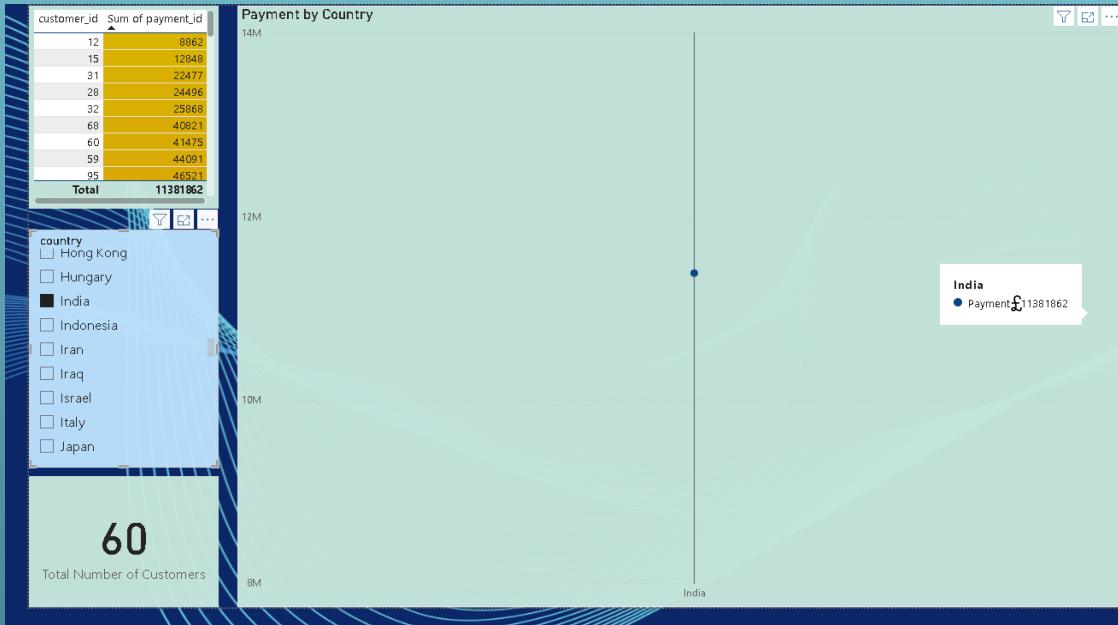
Customer ID	Sum of Payment ID
1	528
2	1242
3	1885
4	2123
6	4466
5	4807
8	5244
9	5566
7	6270
<b>Total</b>	<b>128744817</b>

Country
Afghanistan
Algeria
American Samoa
Angola
Anguilla
Argentina
Armenia
Australia
Austria

599

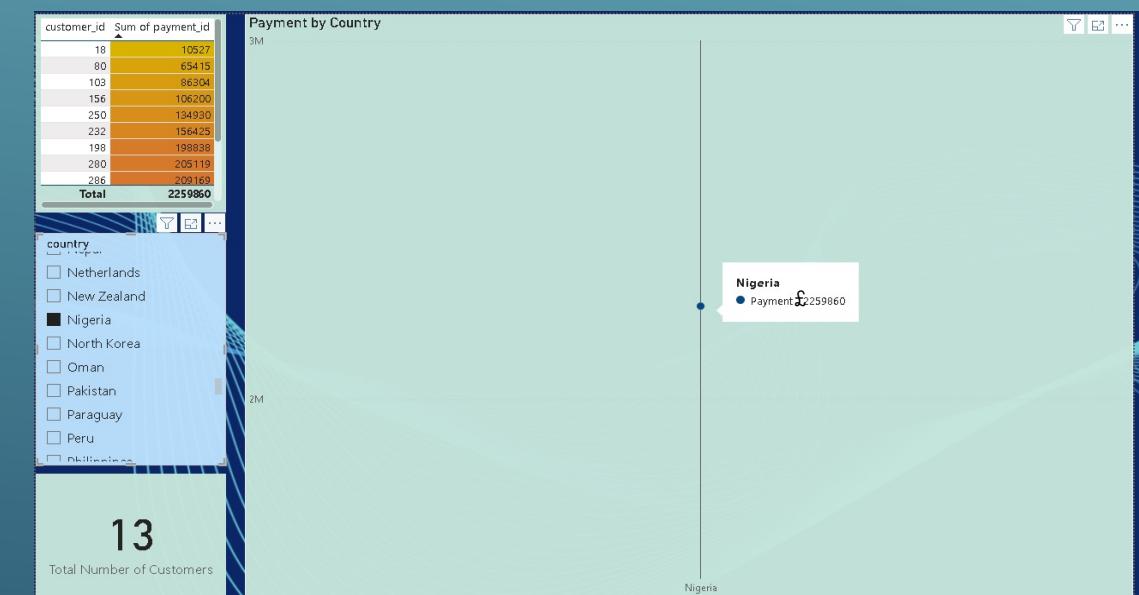
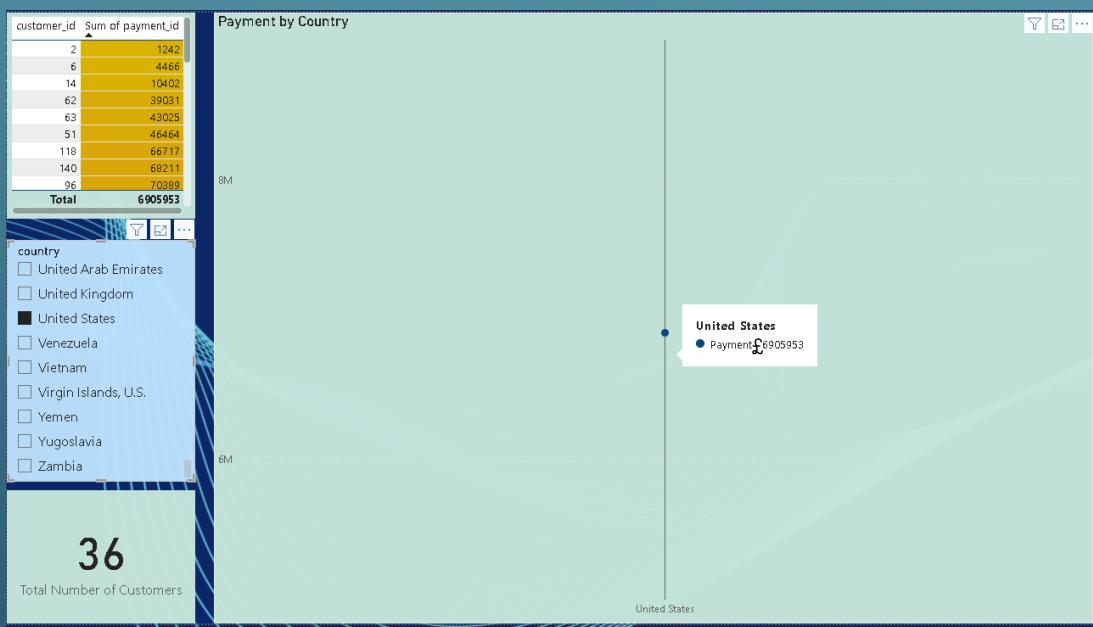
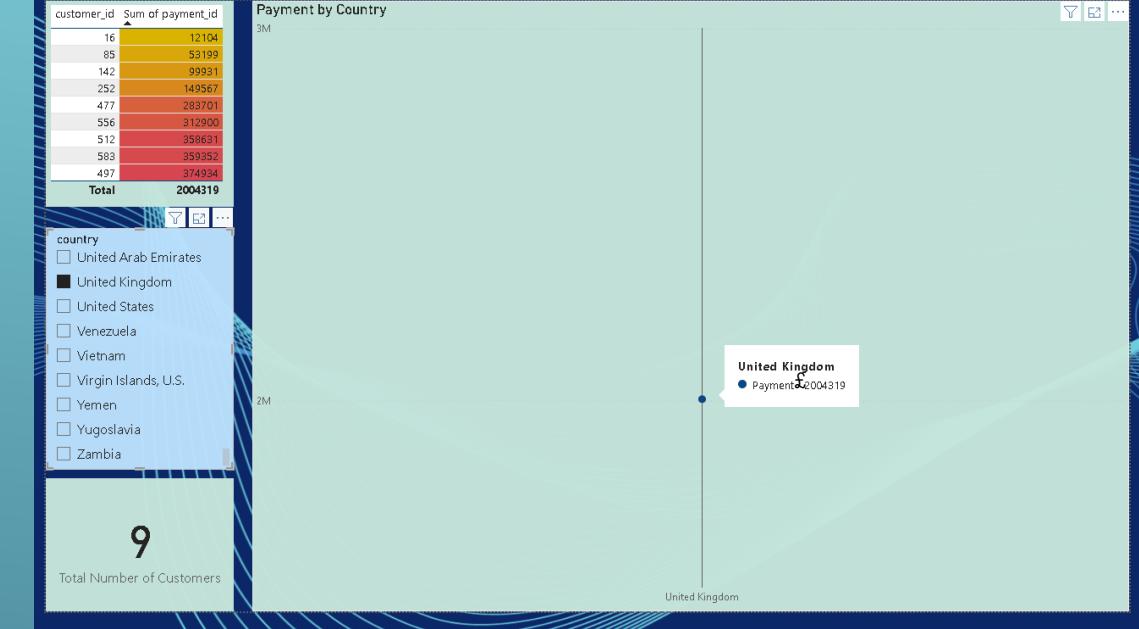
Total Number of Customers





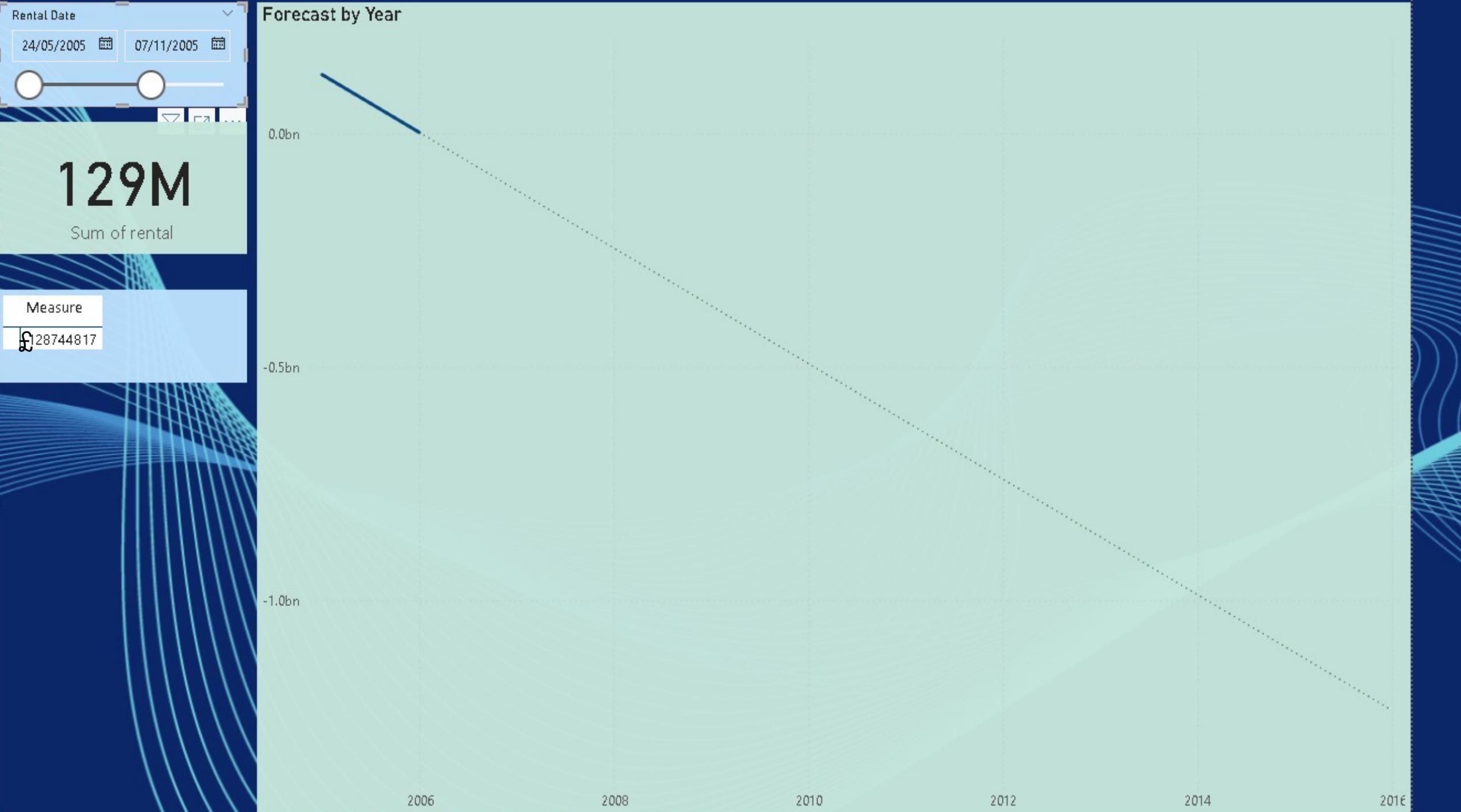
# Payment Analysis

Tanzania, the United Kingdom, the United States, and Nigeria contributed to the revenue, with each country having 3,9,36 and 13 customers, respectively.



# Revenue Forecast

Based on the rental revenue for the past two years, the visuals show that there will be a decline in the next quarter's revenue. The rental trends will continue to decline, and CineMax will no longer have customers.



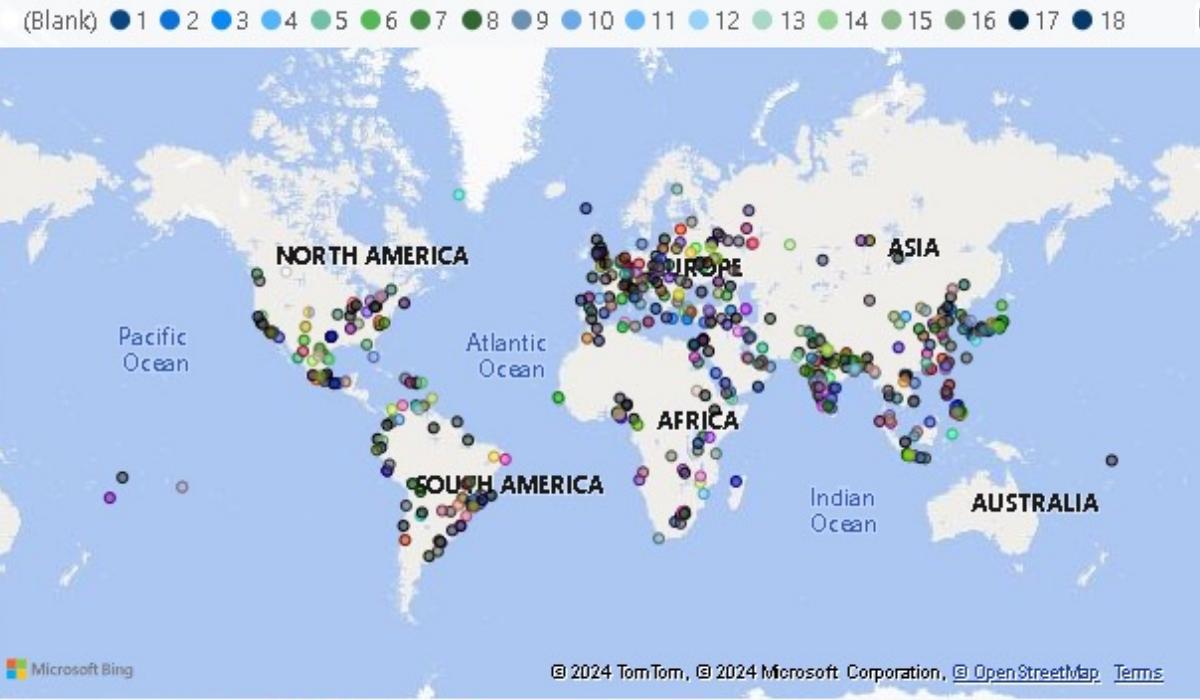
# CineMax Rentals Data Analysis

**Descriptive Analysis** shows that Asian and European cities have the most customers based on their high population and income, led by India, China, the United States, Japan, Mexico, Brazil, and the Russian Federation, respectively. South and Northern America follow this, compared to the African Continent, which has fewer customers and none in Australia.

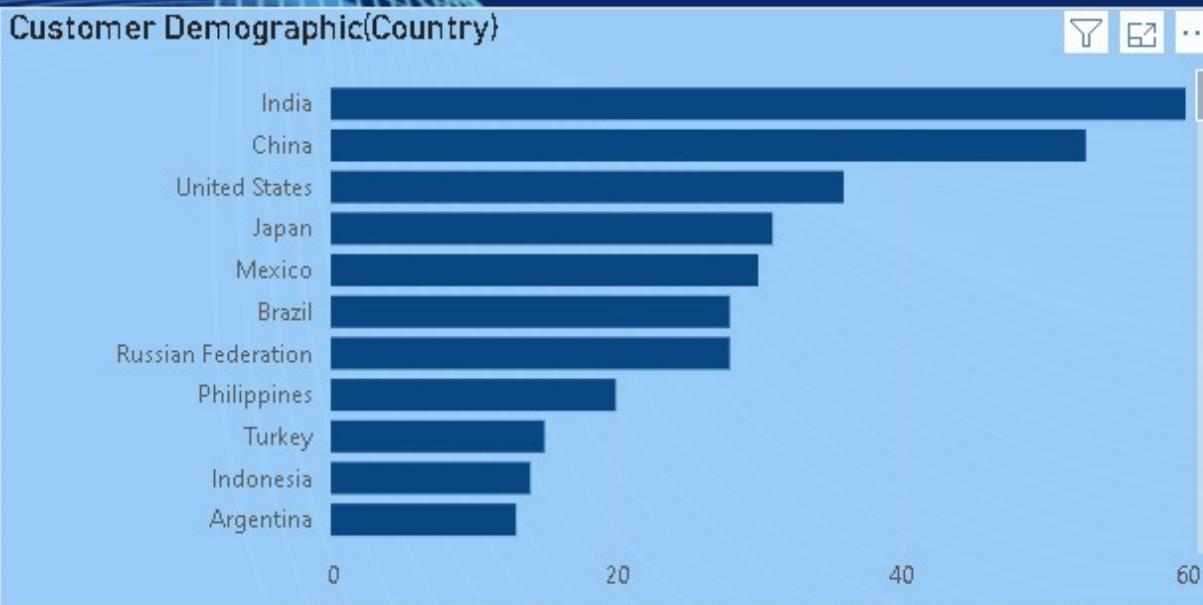
**Diagnostic Analysis** shows decreasing and unstable business growth in the past two years, with August 2005 having the highest rentals and May 2005 having the lowest based on new film releases and customers' renting patterns. Another reason for the decline in business since September 2005 could be new technological innovations and advancements, such as customers opting for online streaming services such as Netflix, Sky, DSTV, and YouTube instead of renting.

**Predictive Analysis** shows a rental revenue decline for the past two years and a subsequent decline in the next quarter's revenue. Rental trends will continue to decline, and CineMax will no longer have customers. The business will no longer be profitable and will probably go bankrupt.

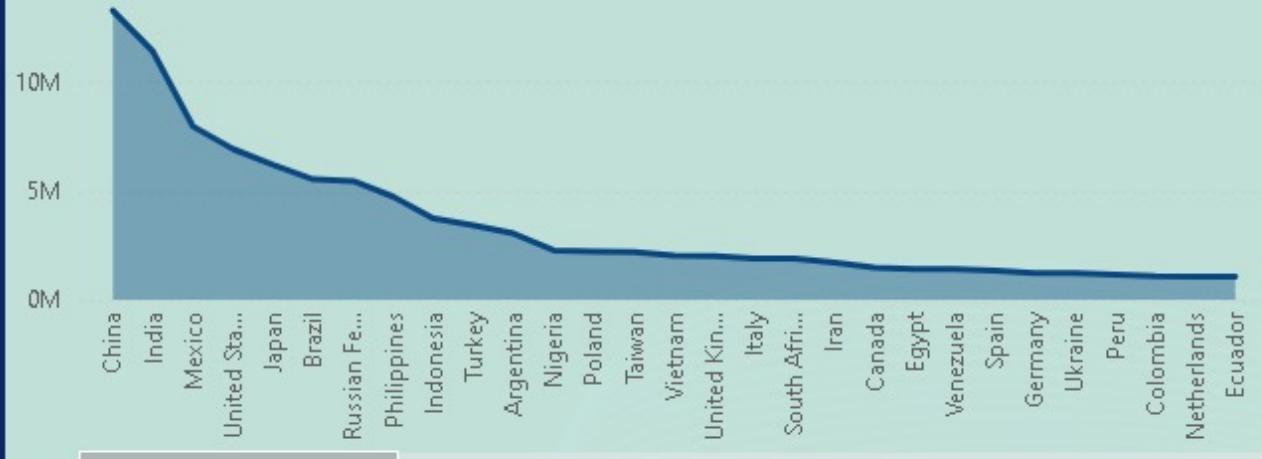
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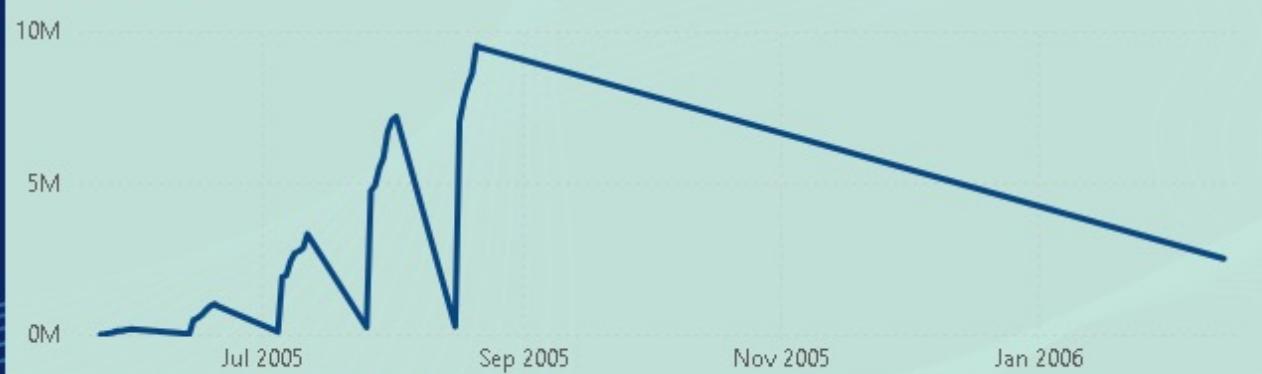
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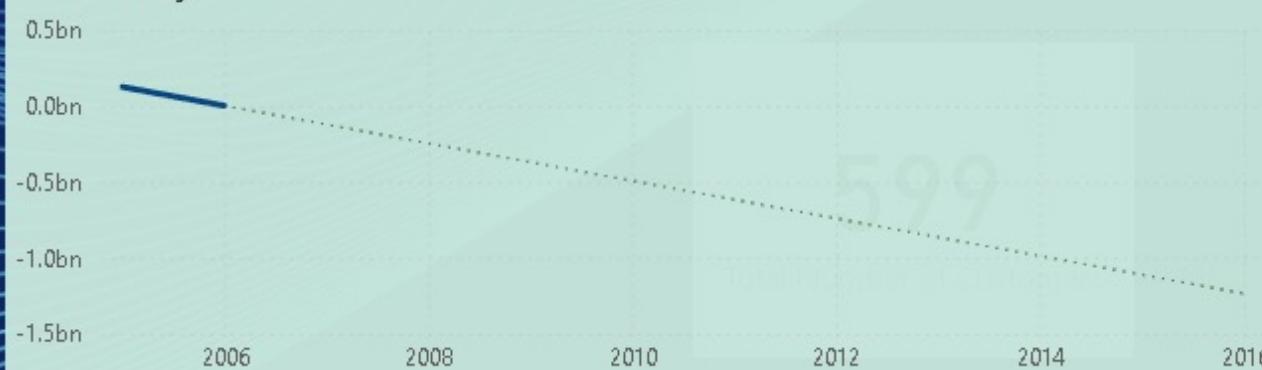
## Payment by Country



## Rental Trends



## Forecast by Year



# Recommendations

Data analysis for CineMax Rentals indicates a decline in business trends and revenue because of the rise of new technological advancements.

Customers are moving to online streaming and subscription platforms rather than renting films, which is dangerous for the business because film rentals are the only profit source.

The business needs to consider innovative alternative revenue sources and new business models to remain relevant, keep up with technological advancements, retain customers, and attract new customers.

Propose introducing and creating its own paid online streaming subscription platform model to tap into new films and convert old films to digital formats to maintain old clients, increase new customers, and maintain two revenue streams to keep the business running and profitable.

Cinemax must diversify into other businesses because rental and customer numbers will decline in subsequent quarters and years, leading to loss and the company's possible bankruptcy.

## FILM INVENTORY

- The current inventory status shows 4.581k for both stores, with 1000 for each film title in each store.

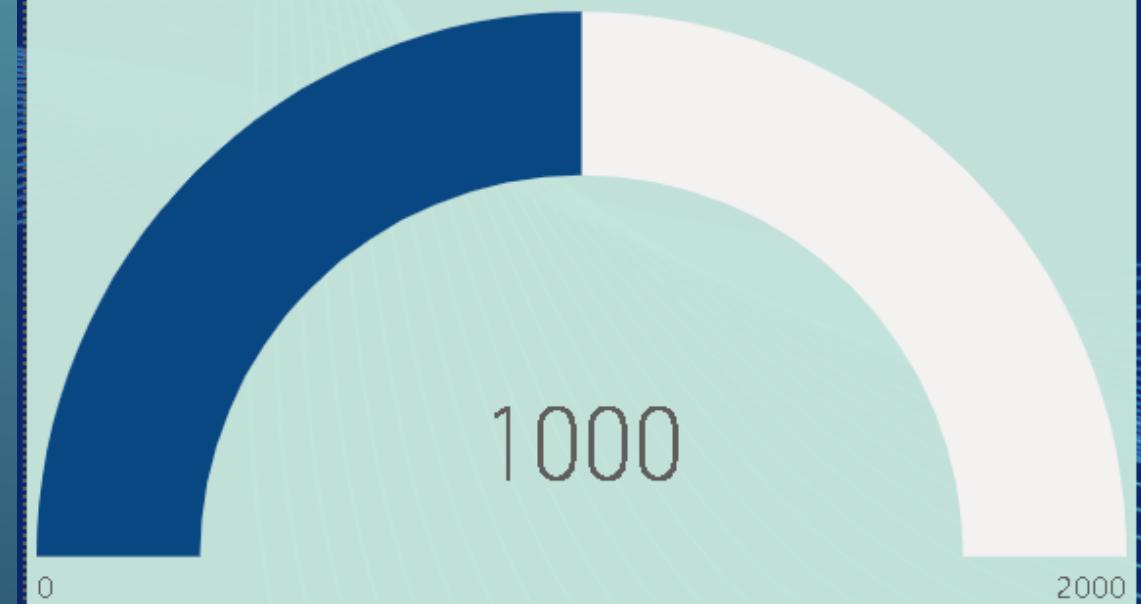
Inventory

4.581K

2

Number of Store

Number of film available in each store



Number of Store by ID

