Data Immersion Ach 03.10

Ryan Wick – 02/011/2025

**Directions**

* **Step 1: Create a presentation for the business managers**
  + Create visualizations of the most important findings from this Achievement in Tableau Public, then compile them into a presentation that tells a compelling story. Your presentation should include the following results:
    - The results from step 2 of task 3.6
* **3.6 step 2: Summarize your data:** Use SQL to calculate descriptive statistics for both the film table and the customer table. For numerical columns, this means finding the minimum, maximum, and average values. For non-numerical columns, calculate the mode value. Copy-paste your SQL queries and their outputs into your answers document.
* **Table: film**
  1. **film Numerical Variables:**

A screenshot of a computer program

Description automatically generated

A close-up of a computer screen

Description automatically generatedA screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screen shot of a computer

Description automatically generated

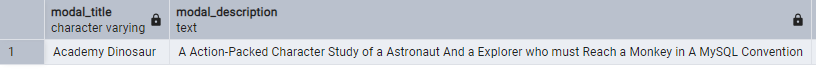
A close-up of a computer screen

Description automatically generated

* 1. **film Non-Numerical Variables:**

A screenshot of a computer

Description automatically generated



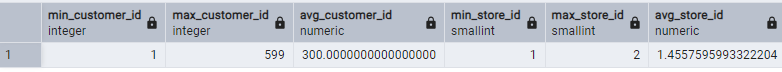
A screenshot of a computer

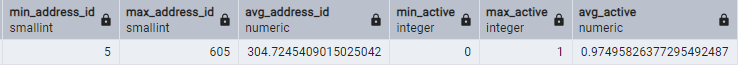
Description automatically generated

* **Table: customer**
  1. **customer Numerical Variables:**
     + **NOTE**: While likely not that useful I did include address\_id and active since they are technically numerical variables.

A screenshot of a computer program

Description automatically generated

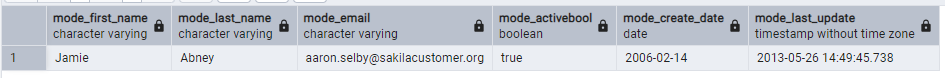




* 1. **customer Non-Numerical Variables:**
     + **NOTE:** While items like email and activebool likely wouldn’t be needed I figured since they are considered “non-numerical” that I would throw them in for fun.

A computer code with text

Description automatically generated with medium confidence



* + - The results from steps 1 to 3 of task 3.7
* Write a query to find the top 10 countries for Rockbuster in terms of customer numbers. (Tip: you’ll have to use GROUP BY and ORDER BY, both of which follow the join.)
  + Copy-paste your query and its output into your answers document.
    - **1. Query**

A screenshot of a computer code

Description automatically generated

* + - **1. Output**

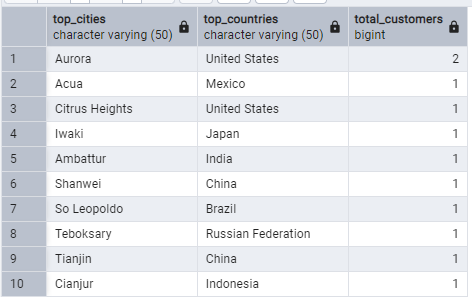


* + Write a few sentences on how you approached this query and why. You must be able to explain your thought process when writing queries, especially for future interviews.
    - To start off with the problem at hand I worked to identify all the tables needed from the ERD. Once I was able to figure out all the connections between customer, address, city, and country I was ready to start writing my query. My primary focus was the customer\_id and country columns. With these two in mind, I utilized the INNER JOIN function to sequentially join the tables referencing their foreign keys. Once that was working properly I added the GROUP BY, ORDER BY, and LIMIT commands to get the desired outcome.
* Next, write a query to identify the top 10 cities that fall within the top 10 countries you identified in step 1. (Hint: the top 10 cities can be in any of the countries identified—you don’t need to create a separate list for each country.)
  + Copy-paste your query and its output into your answers document.
    - **2. Query**

A screenshot of a computer program

Description automatically generated

* + - **2. Output**



* + Write a short explanation of how you approached this query and why.
    - Since we are looking for the top 10 cities that fall within our top 10 cities I started by reusing the previous query. Because we needed to ensure that the cities are from the top 10 countries I utilized the WHERE clause to perform a subquery. From here I knew I again needed to perform an INNER JOIN to get all the relevant tables together. Next it was time to utilize the GROUP BY command to have the results grouped based off country and city. Last but not least, I used ORDER BY to get everything in descending order and LIMIT to provide only the top ten desired outputs.
* Now write a query to find the top 5 customers from the top 10 cities who’ve paid the highest total amounts to Rockbuster. The customer team would like to reward them for their loyalty!
  + Tip: After the join syntax, you’ll need to use the WHERE clause with an operator, followed by GROUP BY and ORDER BY. Your output should include the following columns: Customer ID, Customer First Name and Last Name, Country, City, and Total Amount Paid.
  + Copy-paste your query and its output into your answers document.
    - **3. Query**

A screenshot of a computer program

Description automatically generated

* + **3. Output**

A screenshot of a computer

Description automatically generated

* **Task 3.6 Step 2: Numerical Columns find Min, Max, Avg / Non-Numerical Columns find Mode**
  + For numerical columns, this means finding the minimum, maximum, and average values.
  + For non-numerical columns, calculate the mode value.
* **Task 3.7 Step 1**: **Top 10 Countries by Customer Numbers**
  + Write a query to find the top 10 countries for Rockbuster in terms of customer numbers
* **Task 3.7 Step 2: Top 10 Cities within the Top 10 Countries by Customer Numbers**
  + write a query to identify the top 10 cities that fall within the top 10 countries you identified in step 1.
* **Task 3.7 Step 3:** **Top 5 Customers from Top 10 Cities by who’ve paid the highest total amounts**
  + Now write a query to find the top 5 customers from the top 10 cities who’ve paid the highest total amounts to Rockbuster.

Story:

Slide 1:

Slide 2:

Slide 3:

Slide 4:

Slide 5:

* + - The url of your visualization in Tableau Public
  + You can use PowerPoint or Google Slides for this step; but feel free to be creative, drawing on your knowledge of visualization and storytelling.
* **Step 2: Prepare an Excel file for your technical colleagues**
  + Create an Excel file with the data outputs you shared in step 1 and the SQL queries you wrote to get those results.
* **Step 3: Finalize the data dictionary you drafted in Exercise 3.2**
  + Take another look at the [AdventureWorks data dictionary](https://banbao991.github.io/resources/DB/AdventureWorks.pdf" \t "_blank) to see what a professional data dictionary looks like. The tables on pages 9 and 10 will help you complete the fact/dimension tables in your dictionary.
  + Expand your dictionary by adding:
  + A cover page (if you haven’t done so already)
  + A table of contents
  + Each fact/dimension table you’ve listed with a subsection, indicating the columns it links to
  + Each fact/dimension table you’ve listed with a subsection, indicating the columns it links from
  + Each fact/dimension table you’ve listed with a subsection, indicating the columns acting as unique keys
  + Save your data dictionary as a PDF
* **Step 4:**
  + Upload your presentation, Excel file, and data dictionary here for your mentor to review.
* **Step 5:**
  + Please complete our brief [Exercise Feedback survey](https://careerfoundryteam.typeform.com/to/iKBnpwFh) to share your thoughts on the Spotlight on AI sections in this Achievement. Your feedback is valuable and helps us improve our curriculum.

Film Table:

Numerical Variables (Min, Max, Avg)

Earliest Released Year - 2006

Latest Released Year - 2006

Average Release Year - 2006

Minimum Rental Duration - 3

Maximum Rental Duration - 7

Average Rental Duration - 4.985

Minimum Rental Rate - .99

Maximum Rental Rate - 4.99

Average Rental Rate - 2.98

Minimum Film Length - 46 mins

Maximum Film Legnth - 185 mins

Average Film Length - 115.272 mins

Minimum Replacement Cost - 9.99

Maximum Replacement Cost - 29.99

Average Replacement Cost - 19.984

Non-Numerical Variables (MODE)

Modal Title - Academy Dinosaur

Modal Description - A Action-Packed Character Study of Astronaut And a Explorer who must Reach a Monkey in a MySQL Convention

Modal Rating - PG-13

Modal Special Features - (Trailers, Commentaries, 'Behind the Scenes')

Customer Table:

Numerical Variables (Min, Max, Avg)

Min Customer ID - 1

Max Customer ID - 599

Average Custoemr ID - 300

Minimum Store ID - 1

Maximum Store ID - 2

Average Store ID - 1.4558

Minimum Address ID - 5

Maximum Address ID - 605

Average Address ID - 304.725

Minimum Active - 0

Maximum Active - 1

Average Active - .975

Query to find the top 10 countries based on customer numbers (Output):

India - 60

China - 53

United States - 36

Japan - 31

Mexico - 30

Brazil - 28

Russian Federation - 28

Phillippines - 20

Turkey - 15

Indonesia - 14

Query to identify the top 10 cities that fall within the top 10 countries (Output):

Aurora, United States - 2

Acua, Mexico - 1

Citrus Heights, United States - 1

Iwaki, Japan - 1

Ambattur, India - 1

Shanwei, China - 1

So Leopoldo, Brazil - 1

Teboksary, Russian Federation - 1

Tianjin, China - 1

Cianjur, Indonesia - 1

Query to find the top 5 customers from the top 10 cities who've paid the highest total amounts (Output):

Top 5 Customer ID Customer First Name Customer Last Name Top Cities Top Countries Highest Payment

556 Casey Mena Tokat Turkey 130.68

84 Sara Perry Atilxco Mexico 128.70

506 Leslie Seward Pontianak Indonesia 123.72

389 Alan Kahn Emeishan China 119.75

537 Clinton Buford Aurora United States 98.76

Perplexity’s Suggestion for Task 1:

Thank you for providing the detailed information from tasks 3.6 and 3.7. Based on this data, I can suggest a more specific structure for your presentation. Here's how you might organize your slides:

1. Introduction

- Title slide: "Data Analysis Insights for [Company Name]"

- Brief overview of the project objectives

2. Film Inventory Analysis (Task 3.6)

- Slide: "Film Inventory Overview"

- Use a combination chart to show:

- Release Year (single point at 2006)

- Rental Duration (min, max, avg)

- Rental Rate (min, max, avg)

- Film Length (min, max, avg)

- Replacement Cost (min, max, avg)

- Slide: "Film Characteristics"

- Pie chart for Rating distribution

- Bar chart for most common Special Features

3. Customer Demographics (Task 3.7)

- Slide: "Top 10 Countries by Customer Numbers"

- Bar chart showing customer counts for each country

- Slide: "Top 10 Cities in Key Markets"

- Map visualization showing the cities

- Include customer counts for each city

- Slide: "Top 5 Customers by Total Payment"

- Table or chart showing customer details and payment amounts

4. Key Insights

- Slide: "Customer Distribution Insights"

- Highlight the concentration of customers in India and China

- Slide: "City-Level Analysis"

- Discuss the spread of top cities across different countries

- Slide: "High-Value Customers"

- Emphasize the diversity in locations of top-paying customers

5. Tableau Public Visualization

- Embed or link to your Tableau Public dashboard

- Highlight key interactive features

6. Conclusions and Recommendations

- Summarize main findings

- Suggest strategies based on customer distribution and high-value customers

7. Q&A / Discussion

Remember to:

- Use consistent color coding (e.g., same color for each country across slides)

- Include descriptive titles for each visualization

- Add brief bullet points to highlight key takeaways on each slide

This structure will help you tell a compelling story with your data, moving from broad inventory insights to specific customer analysis, and concluding with actionable recommendations.

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Answer from Perplexity: pplx.ai/share

Gemini’s Suggestion for Task 1:

Okay, here's a suggested structure and flow for your presentation, incorporating the data you've provided. The goal is to tell a story about the film rental business, focusing on key performance indicators and customer behavior.

**Presentation Title:** Analyzing Film Rental Performance and Customer Insights

**I. Introduction (1-2 slides)**

* **Slide 1: Title Slide:** Include the title, your name, and the date. A visually appealing background related to film or data would be a nice touch.
* **Slide 2: Overview/Agenda:** Briefly state the purpose of the presentation: to analyze film rental data, identify key trends, and provide insights for business decisions. Briefly list the topics you'll cover (Film Data Overview, Customer Demographics, Top Performing Regions, High-Value Customers).

**II. Film Data Overview (2-3 slides)**

* **Slide 3: Descriptive Statistics - Numerical Data:** Present the numerical data for the Film table. Instead of listing every single statistic, focus on the most relevant ones. For example:
  + "Average rental duration is approximately 5 days."
  + "Rental rates range from $0.99 to $4.99, with an average of $2.98."
  + "Film lengths vary significantly, from 46 to 185 minutes, averaging around 115 minutes."
  + "Replacement costs range from $9.99 to $29.99, averaging around $20."
  + Consider using small charts or graphs to visualize the distributions of rental duration and film length.
* **Slide 4: Descriptive Statistics - Categorical Data:** Present the modal data for the Film table.
  + "The most frequent film title is 'Academy Dinosaur.'"
  + "The most common rating is PG-13."
  + "Trailers, Commentaries, and 'Behind the Scenes' are the most common special features."
  + Briefly discuss what these modal values might suggest about customer preferences.
* **Slide 5: Customer Table Data:** Focus on the relevant insights from the Customer table.
  + "We have data on nearly 600 customers."
  + "Customers are distributed across two stores."
  + "The average customer is active (97.5% active rate)." This is a good sign!

**III. Customer Demographics and Geographic Distribution (3-4 slides)**

* **Slide 6: Top Countries by Customer Count:** Present the top 10 countries. A bar chart is ideal here. Clearly label the axes and include the number of customers for each country. Highlight the top 3 (India, China, US). "India and China represent our largest customer bases."
* **Slide 7: Top Cities within Top Countries:** Present the top 10 cities. Again, a bar chart is a good visualization. Emphasize that these are cities *within* the top countries. The data suggests a very diverse geographic distribution within these countries. "Our customer base is spread across a wide range of cities within our key markets."
* **Slide 8: Geographic Visualization (Optional but Recommended):** If possible, create a map visualization showing the top countries and potentially even the top cities. This would add a strong visual element to your presentation. Tableau Public is great for this!

**IV. High-Value Customers (2-3 slides)**

* **Slide 9: Top Customers by Payment:** Present the top 5 customers, including their ID, name, city, country, and total payment. "These are our most valuable customers, generating the highest revenue."
* **Slide 10: Customer Segmentation (Future Analysis):** Briefly discuss the potential for further analysis. "Further analysis could segment customers based on their rental habits, demographics, and payment amounts to personalize marketing efforts and improve customer retention."

**V. Conclusion and Recommendations (1-2 slides)**

* **Slide 11: Key Findings:** Summarize the most important findings:
  + "We have a diverse customer base spread across multiple countries and cities."
  + "Our top customers represent a significant portion of our revenue."
  + "Further analysis of customer behavior can help us optimize our marketing strategies."
* **Slide 12: Recommendations:** Offer some actionable recommendations based on your findings. For example:
  + "Consider targeted marketing campaigns in our top performing countries and cities."
  + "Develop a loyalty program to reward high-value customers."
  + "Investigate the popularity of 'Academy Dinosaur' and consider similar film acquisitions."

**VI. Tableau Public Link (1 slide)**

* **Slide 13: Tableau Public Link:** Include the URL of your Tableau Public visualization. Make it easily accessible (QR code or shortened link).

**General Presentation Tips:**

* **Keep it concise:** Avoid overwhelming the audience with too much data on each slide.
* **Use visuals effectively:** Charts and graphs should be clear, easy to understand, and relevant to the message.
* **Tell a story:** Connect the data points to create a narrative that makes sense.
* **Practice your presentation:** Rehearse your delivery to ensure a smooth and confident presentation.

Let me know if you'd like me to elaborate on any of these sections or provide more specific suggestions!

Copilot’s Suggestion for Task 1:

Great, thanks for sharing the details! Here’s a structured approach to creating your presentation:

**Slide 1: Title Slide**

* **Title**: Data Analytics Final Task Presentation
* **Subtitle**: Key Findings and Insights
* **Your Name**: [Your Name]
* **Date**: [Date]

**Slide 2: Introduction**

* **Objective**: Briefly explain the purpose of your analysis and what you aim to achieve with the presentation.

**Slide 3: Film Table Analysis (Task 3.6 Step 2)**

* **Title**: Film Table Analysis
* **Content**:
  + **Numerical Variables**: Use bar charts or tables to show Min, Max, and Avg values for Release Year, Rental Duration, Rental Rate, Film Length, and Replacement Cost.
  + **Non-Numerical Variables**: Use bullet points to list the modal values for Title, Description, Rating, and Special Features.

**Slide 4: Customer Table Analysis (Task 3.6 Step 2)**

* **Title**: Customer Table Analysis
* **Content**:
  + **Numerical Variables**: Use bar charts or tables to show Min, Max, and Avg values for Customer ID, Store ID, Address ID, and Active status.

**Slide 5: Top 10 Countries by Customer Numbers (Task 3.7 Step 1)**

* **Title**: Top 10 Countries by Customer Numbers
* **Content**:
  + **Visualization**: Use a bar chart to display the number of customers in each of the top 10 countries.

**Slide 6: Top 10 Cities within Top 10 Countries (Task 3.7 Step 2)**

* **Title**: Top 10 Cities within Top 10 Countries
* **Content**:
  + **Visualization**: Use a map or bar chart to show the top cities and their corresponding countries.

**Slide 7: Top 5 Customers by Highest Payments (Task 3.7 Step 3)**

* **Title**: Top 5 Customers by Highest Payments
* **Content**:
  + **Table**: Display a table with Customer ID, First Name, Last Name, City, Country, and Highest Payment.

**Slide 8: Tableau Public Visualization**

* **Title**: Tableau Public Visualization
* **Content**:
  + **URL**: Provide the URL of your visualization in Tableau Public.
  + **Screenshot**: Include a screenshot of your Tableau visualization.

**Slide 9: Conclusion**

* **Summary**: Summarize the key findings from your analysis.
* **Recommendations**: Provide actionable recommendations based on your insights.

**Slide 10: Q&A**

* **Title**: Questions and Answers
* **Content**: Open the floor for any questions from the audience.

**Design Tips:**

* **Consistency**: Use consistent colors, fonts, and styles throughout the presentation.
* **Clarity**: Ensure that each slide is clear and not cluttered with too much information.
* **Engagement**: Use visuals to make your presentation more engaging and easier to understand.

Feel free to adjust this structure based on your preferences and the specific requirements of your course. Good luck with your presentation! If you need any more help, just let me know.

Claude’s Suggestion for Task 1:

I'll help you structure a compelling presentation for the business managers. Let me break down how we could organize this data into a clear, impactful story.

```tsx

import React from 'react';

import { Card, CardHeader, CardTitle, CardContent } from '@/components/ui/card';

import { BarChart, Bar, XAxis, YAxis, CartesianGrid, Tooltip, ResponsiveContainer } from 'recharts';

const DataPresentation = () => {

const countryData = [

{ country: 'India', customers: 60 },

{ country: 'China', customers: 53 },

{ country: 'United States', customers: 36 },

{ country: 'Japan', customers: 31 },

{ country: 'Mexico', customers: 30 },

{ country: 'Brazil', customers: 28 },

{ country: 'Russian Federation', customers: 28 },

{ country: 'Philippines', customers: 20 },

{ country: 'Turkey', customers: 15 },

{ country: 'Indonesia', customers: 14 }

];

const filmMetrics = [

{ metric: 'Average Rental Rate', value: '$2.98' },

{ metric: 'Average Film Length', value: '115 mins' },

{ metric: 'Average Replacement Cost', value: '$19.98' },

{ metric: 'Average Rental Duration', value: '5 days' }

];

const topCustomers = [

{ name: 'Casey Mena', city: 'Tokat', country: 'Turkey', amount: 130.68 },

{ name: 'Sara Perry', city: 'Atilxco', country: 'Mexico', amount: 128.70 },

{ name: 'Leslie Seward', city: 'Pontianak', country: 'Indonesia', amount: 123.72 },

{ name: 'Alan Kahn', city: 'Emeishan', country: 'China', amount: 119.75 },

{ name: 'Clinton Buford', city: 'Aurora', country: 'United States', amount: 98.76 }

];

return (

<div className="space-y-6 p-6">

<h1 className="text-3xl font-bold mb-6">Movie Rental Business Analysis</h1>

{/\* Key Metrics \*/}

<div className="grid grid-cols-1 md:grid-cols-2 lg:grid-cols-4 gap-4">

{filmMetrics.map((metric) => (

<Card key={metric.metric}>

<CardHeader className="pb-2">

<CardTitle className="text-sm font-medium">{metric.metric}</CardTitle>

</CardHeader>

<CardContent>

<p className="text-2xl font-bold">{metric.value}</p>

</CardContent>

</Card>

))}

</div>

{/\* Customer Distribution Chart \*/}

<Card>

<CardHeader>

<CardTitle>Customer Distribution by Country</CardTitle>

</CardHeader>

<CardContent>

<div className="h-80">

<ResponsiveContainer width="100%" height="100%">

<BarChart data={countryData}>

<CartesianGrid strokeDasharray="3 3" />

<XAxis dataKey="country" angle={-45} textAnchor="end" height={70} />

<YAxis />

<Tooltip />

<Bar dataKey="customers" fill="#3b82f6" />

</BarChart>

</ResponsiveContainer>

</div>

</CardContent>

</Card>

{/\* Top Customers Table \*/}

<Card>

<CardHeader>

<CardTitle>Top 5 Customers by Revenue</CardTitle>

</CardHeader>

<CardContent>

<div className="overflow-x-auto">

<table className="w-full">

<thead>

<tr className="border-b">

<th className="text-left p-2">Customer Name</th>

<th className="text-left p-2">City</th>

<th className="text-left p-2">Country</th>

<th className="text-right p-2">Total Spent</th>

</tr>

</thead>

<tbody>

{topCustomers.map((customer, index) => (

<tr key={index} className="border-b">

<td className="p-2">{customer.name}</td>

<td className="p-2">{customer.city}</td>

<td className="p-2">{customer.country}</td>

<td className="p-2 text-right">${customer.amount.toFixed(2)}</td>

</tr>

))}

</tbody>

</table>

</div>

</CardContent>

</Card>

</div>

);

};

export default DataPresentation;

```

Here's a suggested structure for your presentation:

1. \*\*Introduction (1-2 slides)\*\*

- Title slide

- Brief overview of what will be covered

2. \*\*Film Library Overview (2-3 slides)\*\*

[Ryan\_Wick\_CF\_ACH 03.10\_Rating Distribution | Tableau Public](https://public.tableau.com/app/profile/ryan.wick4013/viz/Ryan_Wick_CF_ACH03_10_RatingDistribution/RatingDistribution?publish=yes)

- Key metrics about your catalog:

- Average rental rate: $2.98

- Average film length: 115 minutes

- Average replacement cost: $19.98

- Rental duration range: 3-7 days

3. \*\*Global Market Presence (2-3 slides)\*\*

[Ryan\_Wick\_CF\_ACH 03.10\_Customer Distribution | Tableau Public](https://public.tableau.com/app/profile/ryan.wick4013/viz/Ryan_Wick_CF_ACH03_10_CustomerDistribution/CustomerDistribution?publish=yes)

[Ryan\_Wick\_CF\_ACH 03.10\_Top 10 Countries | Tableau Public](https://public.tableau.com/app/profile/ryan.wick4013/viz/Ryan_Wick_CF_ACH03_10_Top10Countries/Top10Countries)

- Top 10 countries by customer base

- Highlight that India (60 customers) and China (53 customers) are your largest markets

- Show the geographic distribution

4. \*\*City-Level Analysis (1-2 slides)\*\*

[Ryan\_Wick\_CF\_ACH 03.10\_Top 10 Cities | Tableau Public](https://public.tableau.com/app/profile/ryan.wick4013/viz/Ryan_Wick_CF_ACH03_10_Top10Cities/Top10Cities?publish=yes)

- Highlight interesting insights about city distribution

- Note the diverse spread across different cities

- Point out that even top cities have relatively small numbers, suggesting room for growth

5. \*\*Customer Value Analysis (2 slides)\*\*

[Ryan\_Wick\_CF\_ACH 03.10\_Top 5 Customers | Tableau Public](https://public.tableau.com/app/profile/ryan.wick4013/viz/Ryan_Wick_CF_ACH03_10_Top5Customers/Top5Customers?publish=yes)

- Present top 5 customers and their spending

- Highlight that high-value customers come from different countries

- Note the range of spending ($98-$131)

6. \*\*Key Insights & Recommendations (1-2 slides)\*\*

- Opportunity for growth in existing markets

- Potential for expanding customer base in top cities

- Recommendations for customer retention strategies

Key Presentation Tips:

1. Use consistent color schemes throughout

2. Include clear titles and labels

3. Keep text minimal - let the data tell the story

4. Use animation sparingly and purposefully

5. Include your Tableau Public URL on the final slide

Would you like me to elaborate on any of these sections or provide specific visualization recommendations for certain slides?

I'll break down each section with specific visualization recommendations and key talking points.

1. \*\*Introduction Slides\*\*

- Title: "Global Movie Rental Business Analysis"

- Use a clean, professional design

- Include a single impactful metric, like "Analyzing 599 customers across 10 key markets"

- Overview slide showing the 3 main areas you'll cover: Film Library, Global Presence, Customer Analysis

2. \*\*Film Library Overview\*\*

Visualization Recommendations:

- Create a "dashboard-style" slide with 4 large metric boxes showing:

```

Rental Rate Range: $0.99 - $4.99 (Avg: $2.98)

Film Length: 46-185 mins (Avg: 115 mins)

Replacement Cost: $9.99-$29.99 (Avg: $19.98)

Rental Duration: 3-7 days (Avg: 5 days)

```

- Use a horizontal bar chart to show film ratings distribution

- Consider a small pie chart showing special features distribution

Key Talking Points:

- Diverse price points catering to different customer segments

- Good range of film lengths

- Reasonable replacement costs

- Flexible rental duration options

3. \*\*Global Market Presence\*\*

Visualization Recommendations:

- World map with color intensity showing customer concentration

- Bar chart showing top 10 countries:

```

India (60)

China (53)Stron

United States (36)

Japan (31)

Mexico (30)

Brazil (28)

Russian Federation (28)

Philippines (20)

Turkey (15)

Indonesia (14)

```

Key Talking Points:

- Strong presence in emerging markets

- Diverse geographic spread

- Potential for growth in existing markets

4. \*\*City-Level Analysis\*\*

Visualization Recommendations:

- Bubble map showing top 10 cities

- Size bubbles based on customer numbers

- Include city-country pairs in a clean table format

Key Talking Points:

- Wide distribution across cities

- No single city dominates

- Opportunity for city-specific marketing

5. \*\*Customer Value Analysis\*\*

Visualization Recommendations:

- Create a detailed but clean table showing:

```

Name City Country Total Spent

Casey Mena Tokat Turkey $130.68

Sara Perry Atilxco Mexico $128.70

Leslie Seward Pontianak Indonesia $123.72

Alan Kahn Emeishan China $119.75

Clinton Buford Aurora United States $98.76

```

- Add a bar chart showing these values

- Consider adding trend lines or patterns if available

Key Talking Points:

- High-value customers from diverse locations

- Relatively close spending patterns ($98-$131)

- Potential for customer loyalty programs

6. \*\*Key Insights & Recommendations\*\*

Create a clean, bullet-point slide with actionable insights:

- Market Expansion: Room for growth in existing cities

- Customer Development: Opportunity to develop more high-value customers

- Geographic Strategy: Focus on areas with proven success

- Pricing Strategy: Current pricing structure supports good customer spending

7. \*\*Final Slide\*\*

- Include your Tableau Public URL

- Add contact information

- Thank your audience

- Open for questions

Additional Tips:

1. Use consistent colors throughout - perhaps choose 2-3 main colors

2. Keep font sizes large enough to read (minimum 18pt)

3. Use white space effectively

4. Include short, impactful titles for each slide

5. Consider adding transition slides between major sections

Would you like me to dive deeper into any of these sections or provide specific guidance on creating any of the visualizations in Tableau?

INFORMATION FOR EXCEL DOCUMENT

**SLIDE 1:**

Title Page

**SLIDE 2:**

Objective & Agenda

**SLIDE 3:**

**Query:**

SELECT rating, COUNT(\*) as count

FROM film

GROUP BY rating;

**Output**:

A screenshot of a computer

AI-generated content may be incorrect.

**SLIDE 4:**

**Query:**

SELECT co.country,

COUNT(c.customer\_id) as customer\_count

FROM customer c

JOIN address a ON c.address\_id = a.address\_id

JOIN city ci ON a.city\_id = ci.city\_id

JOIN country co ON ci.country\_id = co.country\_id

GROUP BY co.country

ORDER BY customer\_count DESC;

**Output**:

A screenshot of a computer

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AI-generated content may be incorrect.

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AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect. **SLIDE 5:**

**Query:**

SELECT D.country,

COUNT(A.customer\_id) as customers

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D ON C.country\_id = D.country\_id

GROUP BY D. Country

ORDER BY COUNT (A.customer\_id) DESC

LIMIT 10

**Output**:

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AI-generated content may be incorrect.

**SLIDE 6:**

**Query:**

SELECT C.city AS Top\_Cities,

D.country AS Top\_Countries,

COUNT (A.customer\_id) as total\_customers

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D ON C.country\_id = D.country\_id

WHERE D.country IN (

SELECT D.country

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D ON C.country\_id = D.country\_id

GROUP BY D.country

ORDER BY COUNT (A.customer\_id) DESC

LIMIT 10)

GROUP BY D.country, C.city

ORDER BY COUNT (A.customer\_id) DESC

LIMIT 10;

**Output**:

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AI-generated content may be incorrect.

**SLIDE 7:**

**Query:**

SELECT B.customer\_id AS top\_5\_Customer\_id,

B.first\_name AS customer\_first\_name,

B.last\_name AS customer\_last\_name,

D.city AS top\_Cities,

E.country AS top\_countries,

SUM(A.amount) AS highest\_payment

FROM payment A

INNER JOIN customer B ON A.customer\_id = B.customer\_id

INNER JOIN address C ON B.address\_id = C.address\_id

INNER JOIN city D ON C.city\_id = D.city\_id

INNER JOIN country E ON D.country\_id = E.country\_id

WHERE D.city IN

(

SELECT C.city

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D ON C.country\_id = D.country\_id

WHERE D.country IN

(

SELECT D.country

FROM customer A

INNER JOIN address B ON A.address\_id = B.address\_id

INNER JOIN city C ON B.city\_id = C.city\_id

INNER JOIN country D ON C.country\_id = D.country\_id

GROUP BY D.country

ORDER BY COUNT (A.customer\_id) DESC

LIMIT 10

)

GROUP BY C.city

ORDER BY COUNT (A.customer\_id) DESC

LIMIT 10

)

GROUP BY B.customer\_id, B.First\_name, B.last\_name, D.city, E.country

ORDER BY SUM(A.amount) DESC

LIMIT 5;

**Output**:

A screenshot of a computer

Description automatically generated