

Text2SQL AI Assistant

Quick Start - Sample Questions

Popular queries to get you started:

How many customers do we have?

Top 10 best-selling films?

Monthly rental trends

Which category has highest revenue?

Customers with most rentals

Average rental duration

Ask Your Question

Enter your question about the database: ?

Analyze seasonal rental patterns by month and category

Generate Query & Analyze

Clear

☒ Show SQL

☒ Show Analysis

Visualization:

Auto-detect

AI Processing

Results & Insights

Query executed successfully!

Generated SQL Query

```
SELECT MONTH(r.rental_date) AS rental_month, c.name AS category_name, COUNT(r.rental_id) AS rental_count FROM rental AS r JOIN inventory AS i ON r.inventory_id = i.inventory_id
```

Query Validation Notes

80

ROWS

3

COLUMNS

0.04s

EXEC TIME

Data Visualization

rental_count vs rental_month



Try other visualizations:



rental_count vs rental_month



rental_month by category_name

AI Insights & Analysis

Here is the analysis of the seasonal rental patterns by month and category:

1. Key findings and insights:

- The data provides a clear breakdown of rental volume across different movie categories for specific months (months 2 and 8 based on the sample, but the full dataset covers more).
- Rental activity varies significantly by both month and category.
- Some categories appear to have consistently higher rental counts than others across the observed months.
- There are indications of seasonal variations, with potentially higher rental volumes in certain months (e.g., month 8 shows significantly higher counts than month 2 in the sample).

2. Notable patterns or trends:

- **Overall Seasonality:** Based on the sample, month 8 shows substantially higher rental counts across all categories compared to month 2, suggesting a strong seasonal peak in August (assuming month 8 is August and month 2 is February).
- **Category Popularity:** Within the sample months, categories like 'Sports', 'Sci-Fi', and 'Action' appear to have higher rental counts compared to categories like 'Children' or 'Animation'. This suggests varying baseline popularity among categories.
- **Category-Specific Seasonality:** While overall volume increases in month 8, the *relative* popularity of categories might shift or remain consistent. For example, if 'Sports' is popular in month 2, it remains popular in month 8, but its absolute rental count increases significantly.

3. Business implications:

- **Inventory Management:** Understanding peak months (like month 8) allows for better stocking of popular titles and categories. Conversely, lower-demand months (like month 2) might require different strategies (e.g., promotions).
- **Marketing & Promotions:** Targeted marketing campaigns can be designed based on seasonal trends. Promote family-friendly movies during potential holiday seasons or action/sports during summer peaks. Promotions could also be used to boost rentals in lower-performing months or categories.
- **Content Acquisition:** Insights into category popularity can inform decisions about acquiring new titles, focusing on categories that consistently perform well or show growth potential during peak seasons.
- **Staffing:** Higher rental volumes in peak months may necessitate increased staffing levels.

4. Recommendations for data visualization:


- **Stacked Bar Chart:** A stacked bar chart with months on the x-axis and total rental count on the y-axis, segmented by `category_name`, would effectively show the total rental volume per month and the contribution of each category.
- **Line Chart:** A multi-line chart with months on the x-axis and `rental_count` on the y-axis, with each line representing a different `category_name`, would clearly show the trend of each category over time and highlight category-specific seasonality.
- **Heatmap:** A heatmap with months on one axis and categories on the other, using color intensity to represent `rental_count`, could quickly reveal high and low performing month-category combinations.


5. Any anomalies or interesting observations:

- The significant difference in rental volume between month 2 and month 8 in the sample is a strong indicator of seasonality, warranting further investigation across all months in the dataset.
- The relative consistency in the *ranking* of category popularity between month 2 and month 8 (e.g., 'Sports' and 'Sci-Fi' high, 'Children' low in both) suggests that while the tide lifts all boats in peak season, the fundamental popularity hierarchy of categories might be stable.
- It would be interesting to see if any category exhibits a *counter-seasonal* trend or a unique peak outside the overall trend. (This cannot be determined from the sample but is a potential anomaly to look for in the full data).

View Raw Data

	rental_month		category_name	rental_count
0		2	Action	17
1		2	Animation	21
2		2	Children	6
3		2	Classics	9
4		2	Comedy	9
5		2	Documentary	6
6		2	Drama	7
7		2	Family	12

 Download CSV

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