

SKILLS APPLIED

1. MySQL Integration with DBeaver:

Imported and queried a structured dataset using MySQL database through the DBeaver SQL client for efficient query management and result visualization.

2. Data Import & Preprocessing:

Loaded CSV files into MySQL tables, handled data type conversions, and ensured clean schema structure for relational operations.

3. Data Aggregation Using GROUP BY & ORDER BY:

Performed aggregations like total revenue, sales count, and quantity sold, and sorted results to uncover trends and top performers.

4. Advanced Filtering Using Subqueries:

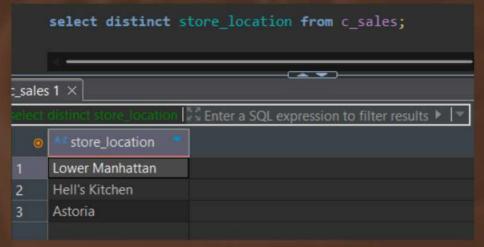
Applied subqueries to extract specific data insights such as top-selling products, high-revenue customers and revenue contribution for each product.

5. Analytical Queries with Window Functions:

Used RANK() and DENSE_RANK() to create leaderboards and rank entities (e.g., top stores per month), enabling powerful comparative insights.



Query 1: List all unique store locations.



Business Problem Solved :

Identify all operational retail store locations for analysis or expansion strategy.

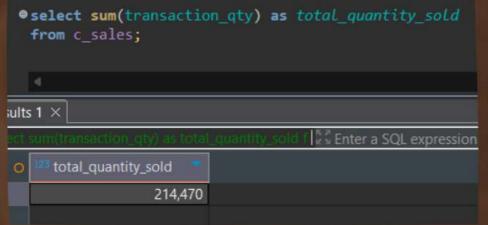
Count total no. of transactions: Query 2

Business Problem Solved :

Understand the overall transaction volume to evaluate customer activity and store performance.

	<pre>select count(*) as total_transactions from c_sales;</pre>	
Result	s1 ×	
elect	count(+) as total_trans 🔯 Enter a SQL expression to filter results 🕨 🔻 🗸	
O	total_transactions **	
	149,116	

Query 3: Find the total quantity sold



Business Problem Solved:

Measure total sales volume to assess product movement and inventory requirements.

Find the earliest and latest transaction date of order: Query 4

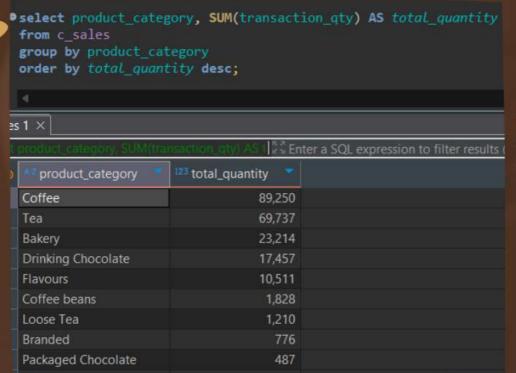
	<pre>select min(trans from c_sales;</pre>	action_date) ean	rliest_date, max(transaction_date) latest_date
ults	:1 ×		
et l	min(transaction_date)	earliest date, max(tra	Enter a SQL expression to filter results (use Ctrl+Space)
O	earliest_date	② latest_date	
	2023-01-01	2023-06-30	

Business Problem Solved:

Define the time range of the dataset for accurate timeseries or trend analysis



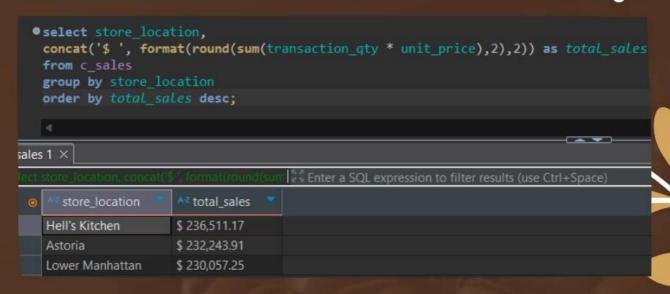
Query 5: Count how many products were sold per category.



Business Problem Solved:

Evaluate which product categories perform best in terms of units sold.

Find the total sales revenue (qty * unit_price) by store location: Query 6



Business Problem Solved : Compare store performance based on revenue to allocate resources and plan marketing.

Query 7: Top 5 Products by Revenue Generated

\$ 91,406.20

\$77,081.95

\$72,416.00

\$ 47,932.00

product_type

Gourmet brewed coffee \$ 70,034.60

Barista Espresso Brewed Chai tea

Hot chocolate

sales 1 ×

Brewed Black tea

```
• select product type,
   concat('$ ', format(sum(transaction_qty * unit_price), 2)) as revenue
   from c_sales
   group by product type
   order by sum(transaction_qty * unit_price) desc
   limit 5;
sales 1 ×
                                       Enter a SQL expression to filter results (use Ctrl
                         AZ revenue
```

Business Problem Solved:

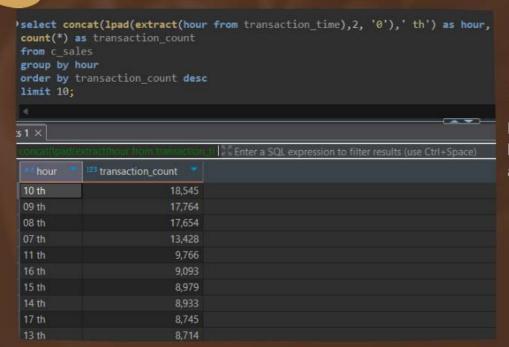
Identify the most profitable products to optimize inventory and marketing focus.

Daily Revenue Trend (February 2023): Query 8

```
select transaction_date,
 concat('$ ', format(round(sum(transaction_qty * unit_price),2),2)) AS daily_revenue
 from c_sales
 where transaction_date like '2023-02-%%'
 group by transaction date
 order by transaction_date;
```

	[▲] daily_revenue ▼	transaction_date	•
	\$ 2,466.30	2023-02-01	
	\$ 2,506.90	2023-02-02	
	\$ 2,591.45	2023-02-03	3
Business Problem Solved :	\$ 2,551.70	2023-02-04	1
	\$ 2,304.70	2023-02-05	
Analyze daily revenue patterns to	\$ 2,203.40	2023-02-06	ŝ
detect seasonality or peak/off	\$ 2,434.55	2023-02-07	
or peak days in a given month.	\$ 2,762.43	2023-02-08	30
	\$ 2,610.63	2023-02-09	11:
	£ 3.004.00	2022 02 10	

Query 9: Top 10 transaction counts by hour for (time-based analysis)



Business Problem Solved:

Discover peak shopping hours to optimize staffing and promotional timing.

Top 3 Most Sold Product Category by quantity: Query 10

select product_category, sum(transaction_qty) as total_quantiy

Business Problem Solved:

Understand customer preference trends to plan future stock and promotions.

	<pre>group by product_cat order by total_quant limit 3;</pre>						
_sales	s 1 ×						
alect product_calegory, sum(transaction_qty) as to 🔀 Enter a SQL expression to filter results							
	product_category	123 total_quantiy					
1	Coffee	89,250					
2	Tea	69,737					
3	Bakery	23,214					

QUERY 11: Top 10 Product Type with highest grossing Average Unit Price

```
select product type,
  concat('$ ', format(round(avg(unit_price),2),2)) as avg_unit_price
  from c_sales
  group by product_type
  order by avg(unit_price) desc
  limit 10;
ales 1 ×
     product_type
                       avg_unit_price
   Premium Beans
                      $ 34.03
   Clothing
                       $ 27.89
   Organic Beans
                       $ 20.29
   Gourmet Beans
                       $ 18.57
   House blend Beans
                       $ 18.00
                       $ 17.43
   Espresso Beans
   Housewares
                      $ 13.45
   Drinking Chocolate
                       $ 10.26
   Green beans
                       $ 10.00
   Chai tea
                       $ 9.71
```

Business Problem Solved :

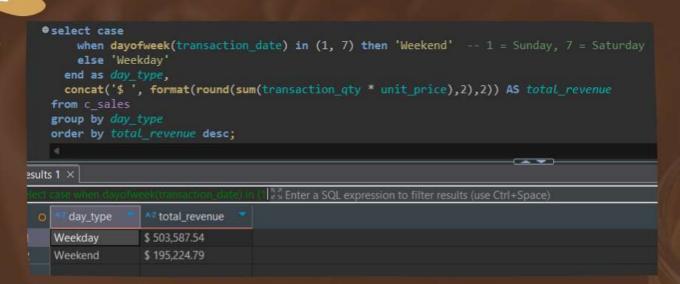
Identify premium products for pricing strategy, bundling, or customer targeting.

Find the best - selling product in each store location (by quantity): Query 12

```
•with best as (
        select store_location, product_detail, sum(transaction_qty) as total_quantity,
        dense_rank() over(partition by store_location order by sum(transaction_qty) desc) as rnk
        from c_sales
        group by store location , product detail
   select store location, product detail, total quantity
   from best
   where rnk = 1
   order by total_quantity desc;
sales 1 ×
      store_location
                         product_detail
                                       123 total_quantity
    Hell's Kitchen
                       Ouro Brasileiro shot
    Astoria
                       Dark chocolate Lg
                                                        1,755
                                                        1,582
    Lower Manhattan
                       Peppermint Lg
```

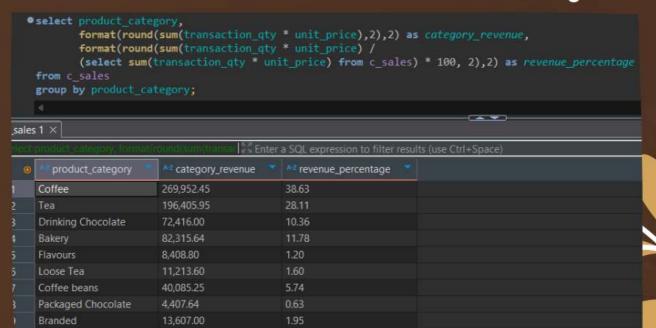
Business Problem Solved: Pinpoint local customer preferences for store-specific merchandising.

Query 13: Compare Weekday vs Weekend sales



Business Problem Solved: Understand customer behavior across weekdays and weekends to adjust store operations and marketing.

Find revenue contribution % of each product category: Query 14



Business Problem Solved : Assess how each product category contributes to overall revenue to prioritize business focus.

Query 15: Identify Slowest and Fastest-moving products (by quantity sold).

Fastest - moving product by quantity sold :

Slowest - moving product by quantity sold :

Business Problem Solved: Optimize inventory by promoting slow movers and ensuring fast movers remain in stock.

K

Query 16: Create a rank of stores based on monthly revenue using RANK() choosing a single month (Jun)

```
with monthly_revenue as (
    select store_location,
        extract(month from transaction_date) as month_num,
        concat('$ ', format(round(sum(transaction_qty * unit_price),2),2)) as monthly_revenue
    from c_sales
    group by store_location, month_num
)
select store_location, month_num, monthly_revenue,
        rank() over (partition by month_num order by monthly_revenue desc) as revenue_rank
from monthly_revenue
where month_num = 6
order by month_num, revenue_rank;
```

ales 1 ×								
th monthly revenue as (select store location, ext 🔀 Enter a SQL expression to filter results (use Ctrl+Space)								
	*** store_location	123 month_num		** monthly_revenue		revenue_rank		
	Hell's Kitchen		6	\$ 56,957.08	Ī		1	
	Astoria		6	\$ 55,083.11			2	
	Lower Manhattan		6	\$ 54,445.69			3	

Business Problem Benchmark store performance monthly to recognize

Solved: high performers and support low performers.

-- THANK YOU --

