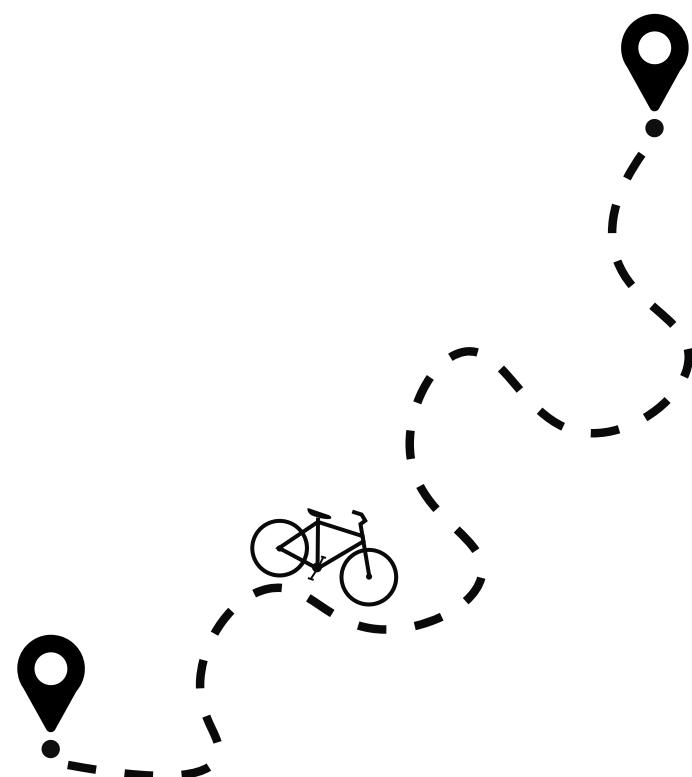




JENSON^{USA}

JENSON USA SQL ANALYSIS



ABOUT COMPANY

JENSON USA

Jenson USA is a leading American bicycle retailer founded in 1994, driven by a passion for cycling and a commitment to serving riders of all levels. We offer a wide selection of bikes, parts, gear, and accessories from top brands, backed by expert support from a team of fellow enthusiasts.

With both a strong online presence and physical locations, we deliver fast, reliable service and personalized guidance to help our customers ride with confidence.

At Jenson USA, we're not just about selling bikes—we're about building a community that rides, explores, and grows together.



OUR OBJECTIVE

ANALYZE CUSTOMER BEHAVIOR

Understand purchasing patterns, customer preferences, and spending habits to identify key customer segments and improve personalization strategies.

EVALUATE STAFF PERFORMANCE

Measure sales contribution by individual staff members, identify top performers, and recognize opportunities for training or performance improvement.

OPTIMIZE INVENTORY MANAGEMENT

Track product sales over time, identify top-selling and unsold items, and support data-driven inventory restocking and clearance decisions.

ENHANCE STORE OPERATIONS

Compare performance across different store locations by analyzing order volume, product movement, and customer engagement to support operational efficiency.

IDENTIFY HIGH-VALUE PRODUCTS AND CATEGORIES

Determine products and categories contributing most to revenue to inform promotional strategies and inventory focus.

SUPPORT STRATEGIC DECISION-MAKING

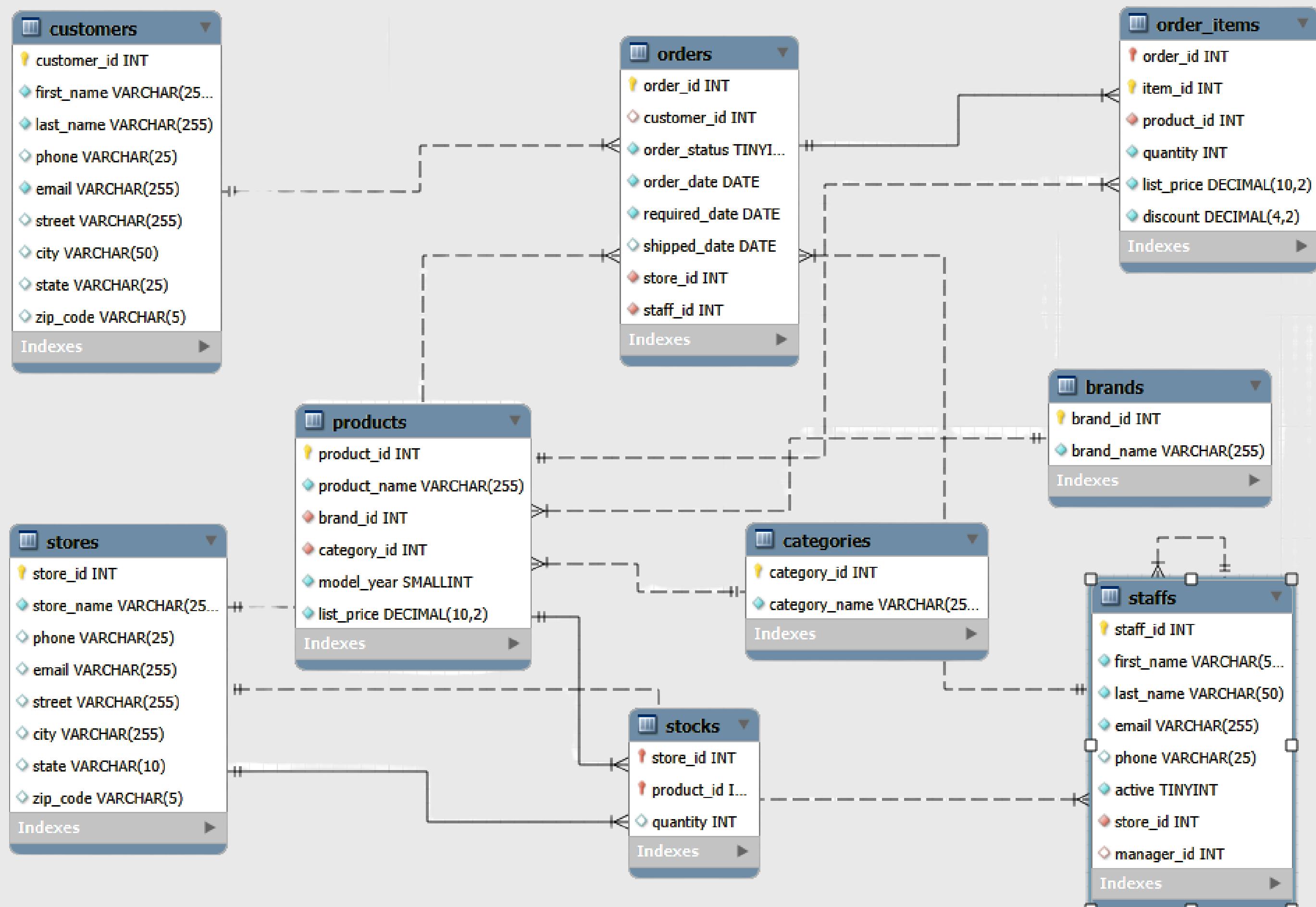
Provide actionable insights to management for improving sales, customer satisfaction, and overall business performance using reliable, data-driven analysis.

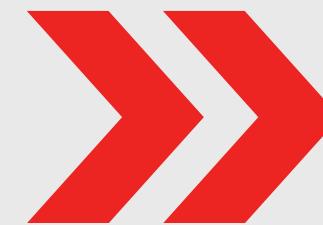


Relational Schema Diagram.



JENSON USA





Customer Behavior Analysis

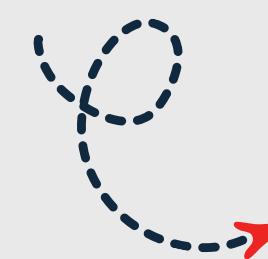
Find the customer who spent the most money on orders.



Query

```
• SELECT  
    customers.customer_id AS Customer_ID,  
    TRIM(CONCAT(customers.first_name, ' ', customers.last_name)) AS Customer_Name,  
    ROUND(SUM(order_items.quantity * (order_items.list_price * (1 - (Discount / 100)))),  
         2) AS Total_Spent  
  
FROM  
    customers  
        LEFT JOIN  
    orders ON customers.customer_id = orders.order_id  
        JOIN  
    order_items ON orders.order_id = order_items.order_id  
GROUP BY 1, 2  
ORDER BY 3 DESC  
LIMIT 1;
```

Output



Customer_ID	Customer_Name	Total_Spent
1364	Grisel Maynard	2727562.17



Customer Behavior Analysis

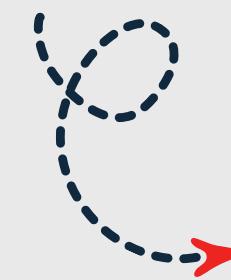
Total Orders Placed by Each Customer per Store



Query

```
SELECT  
    stores.store_id,  
    stores.store_name,  
    TRIM(CONCAT(customers.first_name, ' ', customers.last_name))  
        AS Customer_Name,  
    COUNT(orders.order_id) AS Total_Orders  
  
FROM  
    customers  
        LEFT JOIN  
    orders ON customers.customer_id = orders.customer_id  
        JOIN  
    stores ON orders.store_id = stores.store_id  
GROUP BY 1 , 2 , 3;
```

Output



store_id	store_name	Customer_Name	Total_Orders
1	Santa Cruz Bikes	Johnathan Velazquez	1
1	Santa Cruz Bikes	Nova Hess	2
1	Santa Cruz Bikes	Neil McCall	2
1	Santa Cruz Bikes	Marvin Mullins	2
1	Santa Cruz Bikes	Maribel William	1
1	Santa Cruz Bikes	Lea Key	1
1	Santa Cruz Bikes	Sindy Anderson	1



Customer Behavior Analysis

Customers Who Ordered All Types of Products (Every Category)



Query

```
SELECT
    customers.customer_id,
    TRIM(CONCAT(customers.first_name,      , customers.last_name)) AS Customer_Name,
    COUNT(DISTINCT products.category_id) AS Count_Category
FROM
    customers
        JOIN orders ON customers.customer_id = orders.customer_id
        JOIN order_items ON orders.order_id = order_items.order_id
        JOIN products ON order_items.product_id = products.product_id
GROUP BY 1 , 2
HAVING Count_Category =
(SELECT COUNT(*) FROM categories)
```

Output

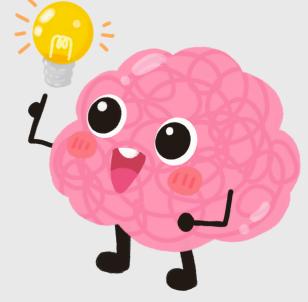
customer_id	Customer_Name	Count_Category
9	Genoveva Baldwin	7



Customer Behavior Analysis

Key Insights



 <u>Derived Insight</u>	 <u>Actionable Suggestion</u>
1. Only a single customer has purchased across all product categories	Create targeted campaigns to encourage category exploration (e.g., bundle offers, discounts on untapped categories).
2. Customer engagement varies by store	Analyze high-performing stores with more loyal customers and replicate their customer experience in other locations.
3. Majority of customers fall short of exploring the full catalog	Initiate discovery campaigns or gamified promotions that incentivize exploring new categories.



Inventory Management Analysis

Cumulative Quantity Sold for Each Product Over Time

Query

```
• SELECT
    products.product_name,
    orders.order_date,
    order_items.quantity,
    SUM(order_items.quantity) OVER (
        PARTITION BY products.product_name
        ORDER BY orders.order_date
    ) AS cumulative_quantity
FROM
    orders
JOIN
    order_items ON orders.order_id = order_items.order_id
JOIN
    products ON order_items.product_id = products.product_id;
```

Output

product_name	order_date	quantity	Cumulative_Quantity
Electra Amsterdam Fashion 3i Ladies' - 2017/2018	2018-01-01	1	1
Electra Amsterdam Fashion 3i Ladies' - 2017/2018	2018-01-21	2	3
Electra Amsterdam Fashion 3i Ladies' - 2017/2018	2018-04-30	2	5
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-01-29	2	2
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-02-28	1	3
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-03-03	1	4
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-03-09	2	6
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-04-06	1	7



Inventory Management Analysis

Top Selling Product (Qty * Price) per Category

Query

```
WITH all_products_sales AS (
    SELECT
        categories.category_name AS category_name, products.product_id, products.product_name,
        ROUND(SUM(order_items.quantity * order_items.list_price), 2) AS total_sales
    FROM products
    LEFT JOIN
        order_items ON products.product_id = order_items.product_id
    JOIN
        categories ON products.category_id = categories.category_id
    GROUP BY
        categories.category_name, products.product_id, products.product_name
)
SELECT * FROM (SELECT *, DENSE_RANK() OVER (PARTITION BY category_name ORDER BY total_sales DESC) AS rnk
FROM all_products_sales) as ranked_products
WHERE rnk = 1;
```

Output

category_name	product_id	product_name	total_sales	rnk
Children Bicycles	23	Electra Girl's Hawaii 1 (20-inch) - 2015/2016	4619846.00	1
Comfort Bicycles	26	Electra Townie Original 7D EQ - 2016	8039866.00	1
Cruisers Bicycles	16	Electra Townie Original 7D EQ - 2016	9359844.00	1
Cyclocross Bicycles	11	Surly Straggler 650b - 2016	25382949.00	1
Electric Bikes	9	Trek Conduit+ - 2016	43499855.00	1
Mountain Bikes	7	Trek Fuel EX 9.8 2016	61500046.00	1



Inventory Management Analysis

Highest-Priced Product per Category



Query

```
with product_ranking as
(select categories.category_name as Category_Name,
products.product_name as Product_Name ,
order_items.list_price as List_Price ,
dense_rank() over(partition by Category_Name order by List_Price desc) as Ranking
from products
join order_items on products.product_id = order_items.product_id
join categories on products.category_id = categories.category_id
group by 1,2,3)
select * from product_ranking where Ranking = 1;
```

Output

Category_Name	Product_Name	List_Price	Ranking
Children Bicycles	Trek Superfly 24 - 2017/2018	48999.00	1
Children Bicycles	Electra Straight 8 3i (20-inch) - Boy's - 2017	48999.00	1
Children Bicycles	Electra Townie 3i EQ (20-inch) - Boys' - 2017	48999.00	1
Comfort Bicycles	Electra Townie Go! 8i - 2017/2018	259999.00	1
Cruisers Bicycles	Electra Townie Commute Go! Ladies' - 2018	299999.00	1
Cruisers Bicycles	Electra Townie Commute Go! - 2018	300000.00	1



Inventory Management Analysis

Top 3 Most Sold Products by Quantity

Query

```
with products_with_quan as (
  select products.product_id , products.product_name as Product_Name,
  sum(order_items.quantity) as Total_Quantity
  from products
  left join order_items on products.product_id = order_items.product_id
  group by 1,2)
```

Output

product_id	Product_Name	Total_Quantity	ranking
6	Surly Ice Cream Truck Frameset - 2016	167	1
13	Electra Cruiser 1 (24-Inch) - 2016	157	2
16	Electra Townie Original 7D EQ - 2016	156	3

```
select * from
(select *, 
dense_rank() over
(order by Total_Quantity desc) as ranking from products_with_quan) ranking_products
where ranking <=3;
```



Inventory Management Analysis

Median Value of the Price List



Query

```
with details as
  (select list_price as List_Price,
    row_number() over() as Position ,
    count(*) over() as N from order_items
   order by 1)
```

Output

Median
59999.00

```
select
  case when  n%2 = 0 then (select round(avg(List_Price),2) from details
  where Position in (n/2,((n/2)+1)))
  else (select round(avg(List_Price),2) from details where Position = (n+1)/2)
  end as Median
  from details
  limit 1
```



Inventory Management Analysis

Products Never Ordered (Using EXISTS)

Query

```
• SELECT
    products.product_id, products.product_name
  FROM
    products
  WHERE
    NOT EXISTS( SELECT
        *
      FROM
        order_items
      WHERE
        products.product_id = order_items.product_id)
```

Output

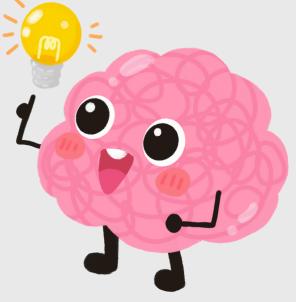
product_id	product_name
1	Trek 820 - 2016
121	Surly Krampus Frameset - 2018
125	Trek Kids' Dual Sport - 2018
154	Trek Domane SLR 6 Disc Women's - 2018
195	Electra Townie Go! 8i Ladies' - 2018
267	Trek Precaliber 12 Girl's - 2018
284	Electra Savannah 1 (20-inch) - Girl's - 2018
291	Electra Sweet Ride 1 (20-inch) - Girl's - 2018
316	Trek Checkpoint ALR 4 Women's - 2019



Inventory Management Analysis

Key Insights



 <h3><u>Derived Insight</u></h3>	 <h3><u>Actionable Suggestion</u></h3>
1. Some products have never been ordered	Discontinue or rebrand underperforming SKUs; analyze if pricing, visibility, or relevance is an issue.
2. A few products dominate sales in each category (from top-selling product query)	Increase stock for top-performing items; consider highlighting them in marketing efforts.
3. Cumulative sales data shows seasonality or surges (from cumulative quantity query)	Use this time-based trend to improve demand forecasting and optimize restocking schedules.



Staff Performance Analysis

Staff Members Who Have Not Made Any Sales



Query



SELECT

```
staffs.staff_id,  
TRIM(CONCAT(staffs.first_name, ' ', staffs.last_name)) AS Staff_Name
```

FROM

```
staffs
```

LEFT JOIN

```
orders ON staffs.staff_id = orders.staff_id
```

WHERE

```
orders.order_id IS NULL;
```

Output



staff_id	Staff_Name
1	Fabiola Jackson
4	Virgie Wiggins
5	Jannette David
10	Bernardine Houston



Staff Performance Analysis

Staff with Sales Above Average



Query

```
WITH staff_sales AS (
    SELECT
        staffs.staff_id,
        CONCAT(staffs.first_name, " ", staffs.last_name) AS Staff_Name,
        COALESCE(ROUND(
            SUM(order_items.quantity * (order_items.list_price * (1 - (Discount / 100)))), 2
        ), 0) AS Total_Sales
    FROM staffs
    LEFT JOIN orders ON staffs.staff_id = orders.staff_id
    LEFT JOIN order_items ON orders.order_id = order_items.order_id
    GROUP BY 1, 2
)

SELECT * FROM (SELECT * FROM staff_sales
WHERE Total_Sales > (SELECT AVG(Total_Sales)
FROM staff_sales
))
) Average_Compare;
```

Output

staff_id	Staff_Name	Total_Sales
3	Genna Serrano	91709747.23
6	Marcelene Boyer	283015337.44
7	Venita Daniel	277642257.73



Staff Performance Analysis

Key Insights



<u>Derived Insight</u>	<u>Actionable Suggestion</u>
1. Some staff members have recorded no sales	Investigate possible reasons: role mismatch, inadequate training, or lack of assignments; consider mentoring or reassignment.
2. Sales distribution among staff is uneven	Set realistic sales targets and balance workloads to ensure fair opportunities for all team members.
3. Few staff exceed average sales significantly	Identify and reward high performers; use their strategies as training material for others.



Store Operations Analysis

Total Number of Products Sold by Each Store

Query

```
SELECT
    stores.store_id,
    stores.store_name,
    SUM(order_items.quantity) AS Total_Quantity_Sold
FROM
    stores
    LEFT JOIN
    orders ON stores.store_id = orders.store_id
    JOIN
    order_items ON orders.order_id = order_items.order_id
GROUP BY 1 , 2;
```

Output

	store_id	store_name	Total_Quantity_Sold
▶	1	Santa Cruz Bikes	1516
	2	Baldwin Bikes	4779
	3	Rowlett Bikes	783



Store Operations Analysis

Key Insights



 <u>Derived Insight</u>	 <u>Actionable Suggestion</u>
1. Variation in total products sold across stores (from "total products sold per store")	Investigate high-performing stores to replicate their strategies; provide support to underperforming locations.
2. Certain stores consistently receive higher customer traffic (more orders)	Allocate more staff/resources to high-traffic stores and improve marketing for low-traffic ones.
3. A small number of stores are responsible for the majority of sales volume	Use this insight to plan store expansion or remodeling. Focus investment on high-ROI locations.



THANK YOU!

Presented By:- Adnan Hafeez



JENSON USA Embracing the Bicycle Lifestyle !

We appreciate the time and effort invested in reviewing this analysis. The insights derived from the data provide a valuable foundation for making informed business decisions across customer behavior, staff performance, inventory management, and store operations.

