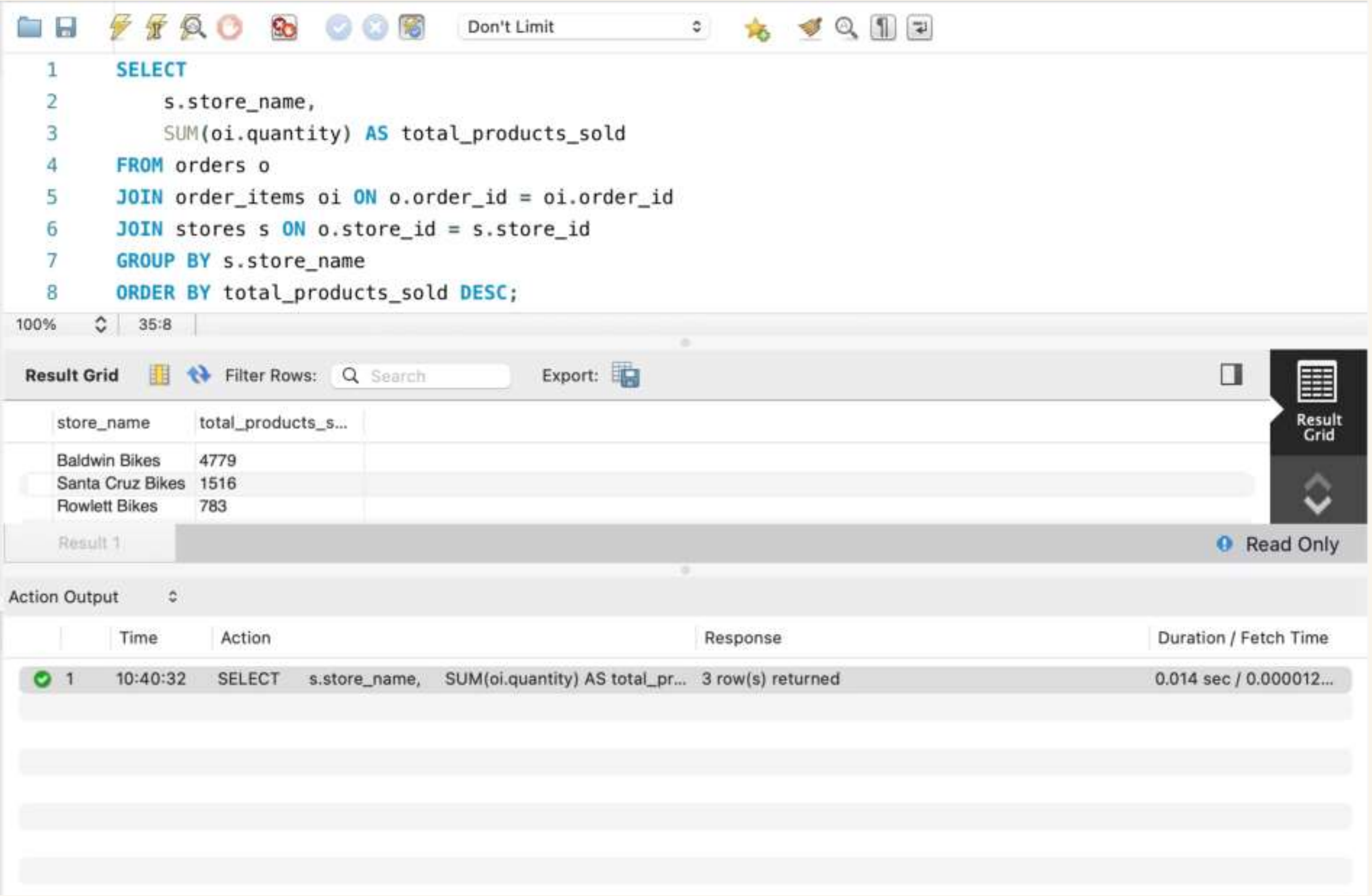
Jenson USA: America's Premier Online Cycling Store

Discover the legacy of Jenson USA, a pioneer in online cycling retail, dedicated to providing exceptional service and an expansive selection of products to the cycling community across America.

1.Find the total number of products sold by each store along with the store name

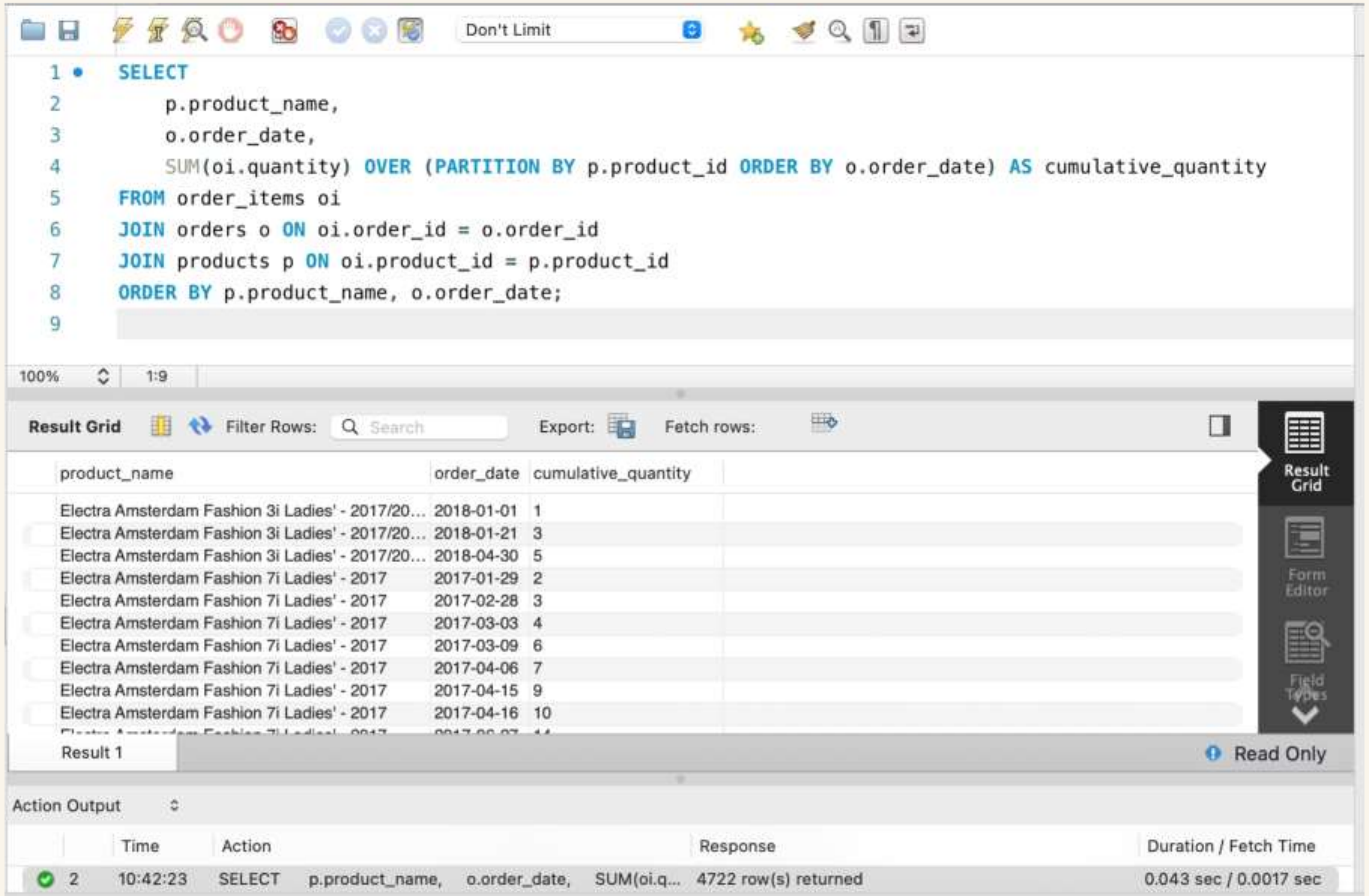


```sql
SELECT
    s.store_name,
    SUM(oi.quantity) AS total_products_sold
FROM orders o
JOIN order_items oi ON o.order_id = oi.order_id
JOIN stores s ON o.store_id = s.store_id
GROUP BY s.store_name
ORDER BY total_products_sold DESC;
```

```
store_name         total_products_s...
Baldwin Bikes      4779
Santa Cruz Bikes   1516
Rowlett Bikes      783
```

```
    Time       Action                                               Response            Duration / Fetch Time
1   10:40:32   SELECT   s.store_name,   SUM(oi.quantity) AS total_pr...   3 row(s) returned   0.014 sec / 0.000012...
```

2.Calculate the cumulative sum of quantities sold for each product over time



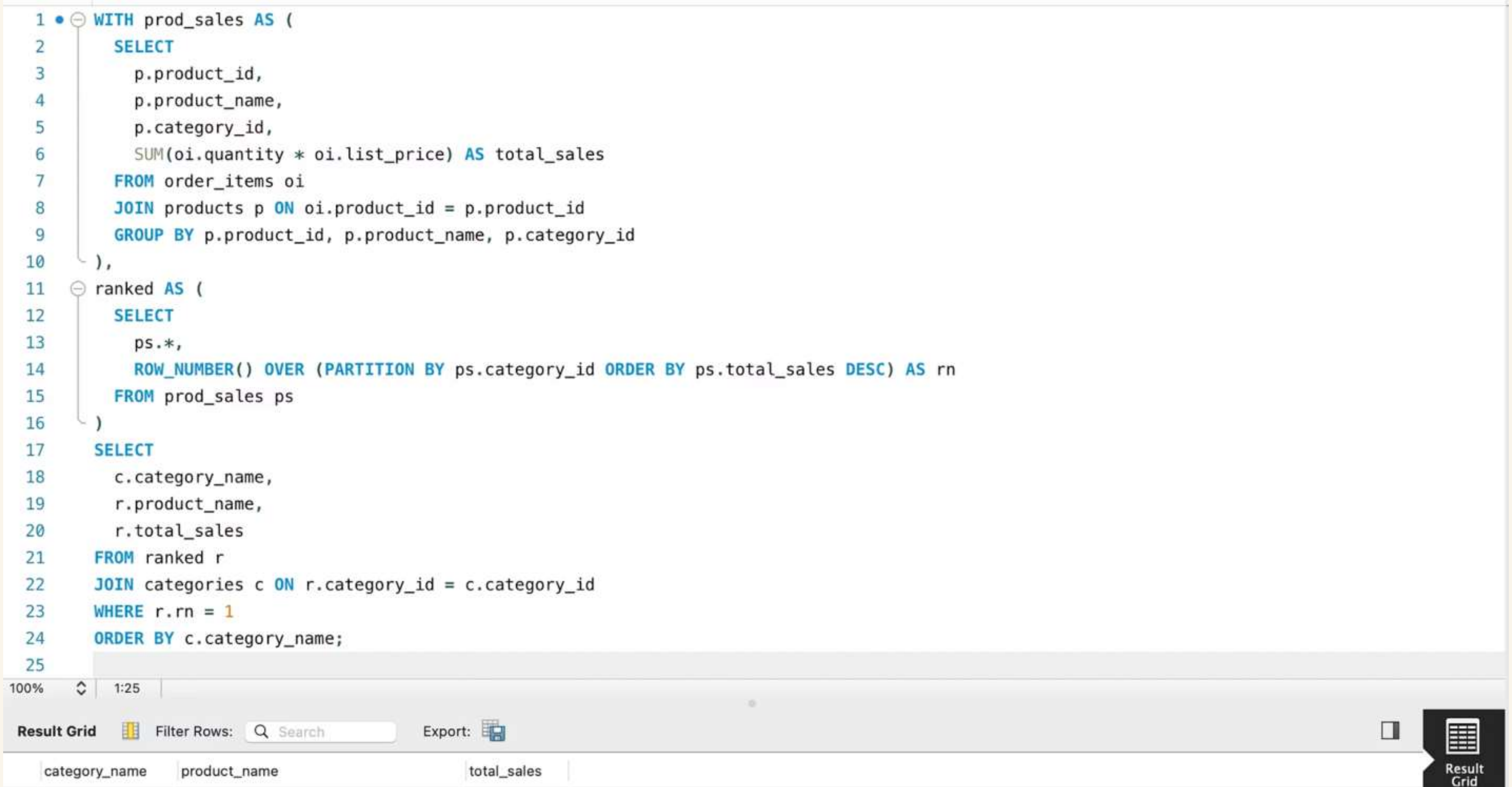
Don't Limit

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

product_name	order_date	cumulative_quantity
Electra Amsterdam Fashion 3i Ladies' - 2017/20...	2018-01-01	1
Electra Amsterdam Fashion 3i Ladies' - 2017/20...	2018-01-21	3
Electra Amsterdam Fashion 3i Ladies' - 2017/20...	2018-04-30	5
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-01-29	2
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-02-28	3
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-03-03	4
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-03-09	6
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-04-06	7
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-04-15	9
Electra Amsterdam Fashion 7i Ladies' - 2017	2017-04-16	10

	Time	Action	Response	Duration / Fetch Time
2	10:42:23	SELECT p.product_name, o.order_date, SUM(oi.q...	4722 row(s) returned	0.043 sec / 0.0017 sec

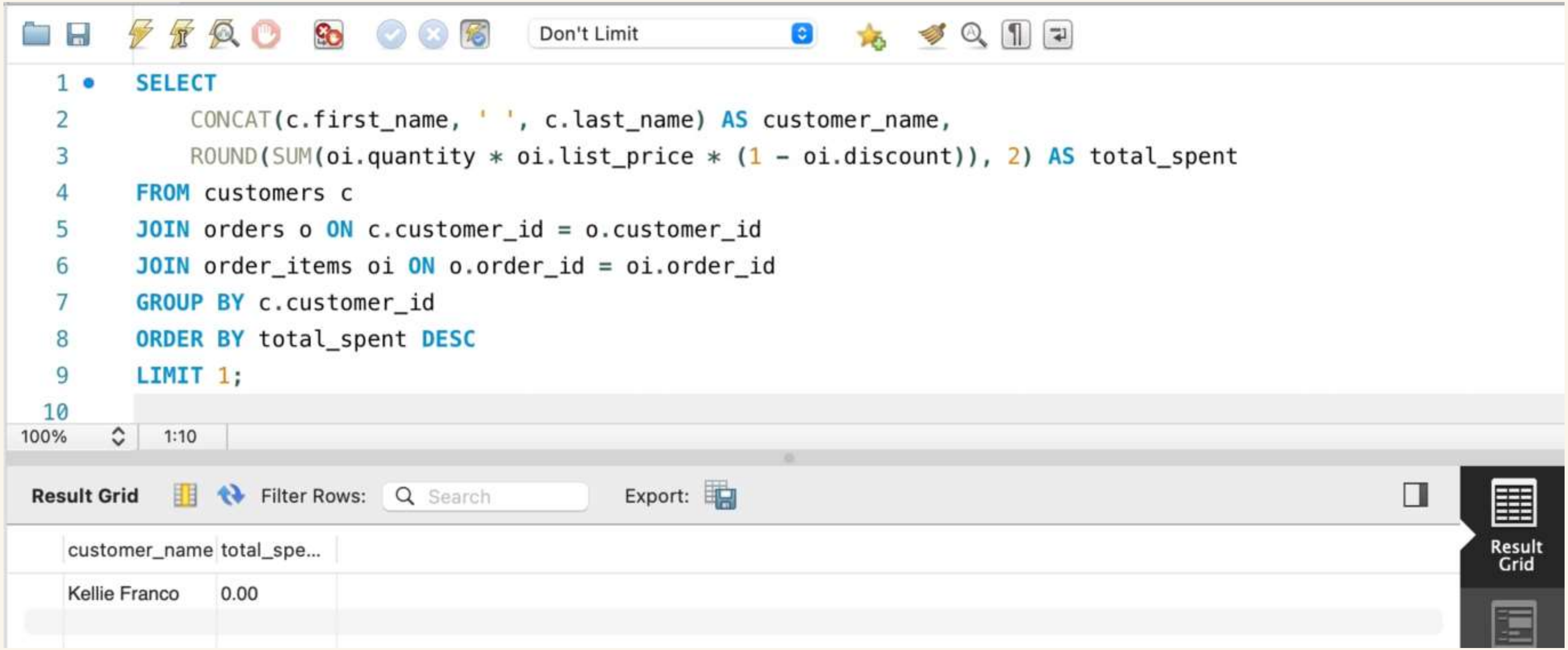
3.Find the product with the highest total sales (quantity * price) for each category



```sql
WITH prod_sales AS (
  SELECT
    p.product_id,
    p.product_name,
    p.category_id,
    SUM(oi.quantity * oi.list_price) AS total_sales
  FROM order_items oi
  JOIN products p ON oi.product_id = p.product_id
  GROUP BY p.product_id, p.product_name, p.category_id
),
ranked AS (
  SELECT
    ps.*,
    ROW_NUMBER() OVER (PARTITION BY ps.category_id ORDER BY ps.total_sales DESC) AS rn
  FROM prod_sales ps
)
SELECT
  c.category_name,
  r.product_name,
  r.total_sales
FROM ranked r
JOIN categories c ON r.category_id = c.category_id
WHERE r.rn = 1
ORDER BY c.category_name;
```

category_name	product_name	total_sales

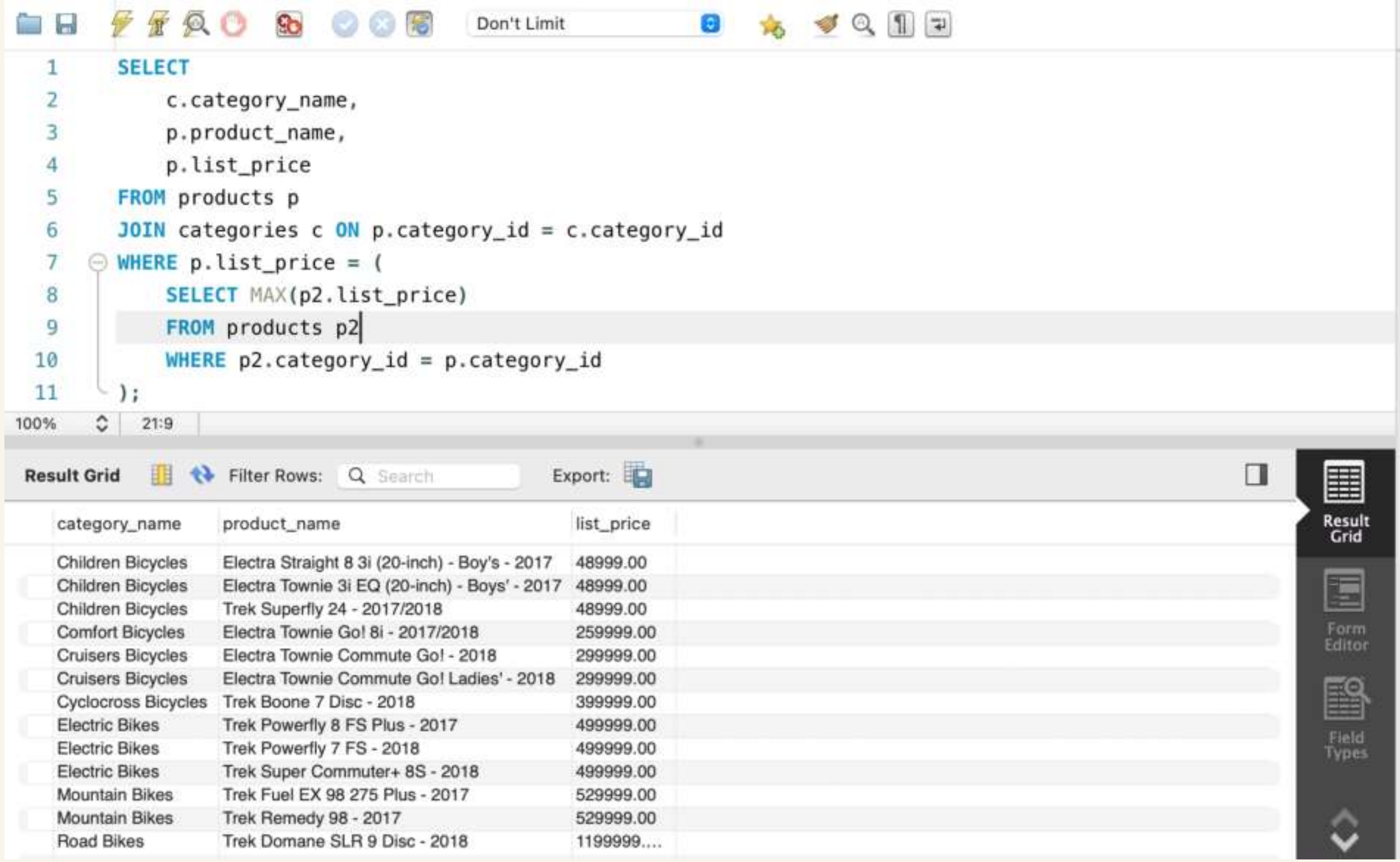
4.Find the customer who spent the most money on orders



```sql
SELECT
    CONCAT(c.first_name, ' ', c.last_name) AS customer_name,
    ROUND(SUM(oi.quantity * oi.list_price * (1 - oi.discount)), 2) AS total_spent
FROM customers c
JOIN orders o ON c.customer_id = o.customer_id
JOIN order_items oi ON o.order_id = oi.order_id
GROUP BY c.customer_id
ORDER BY total_spent DESC
LIMIT 1;
```

customer_name	total_spe...
Kellie Franco	0.00

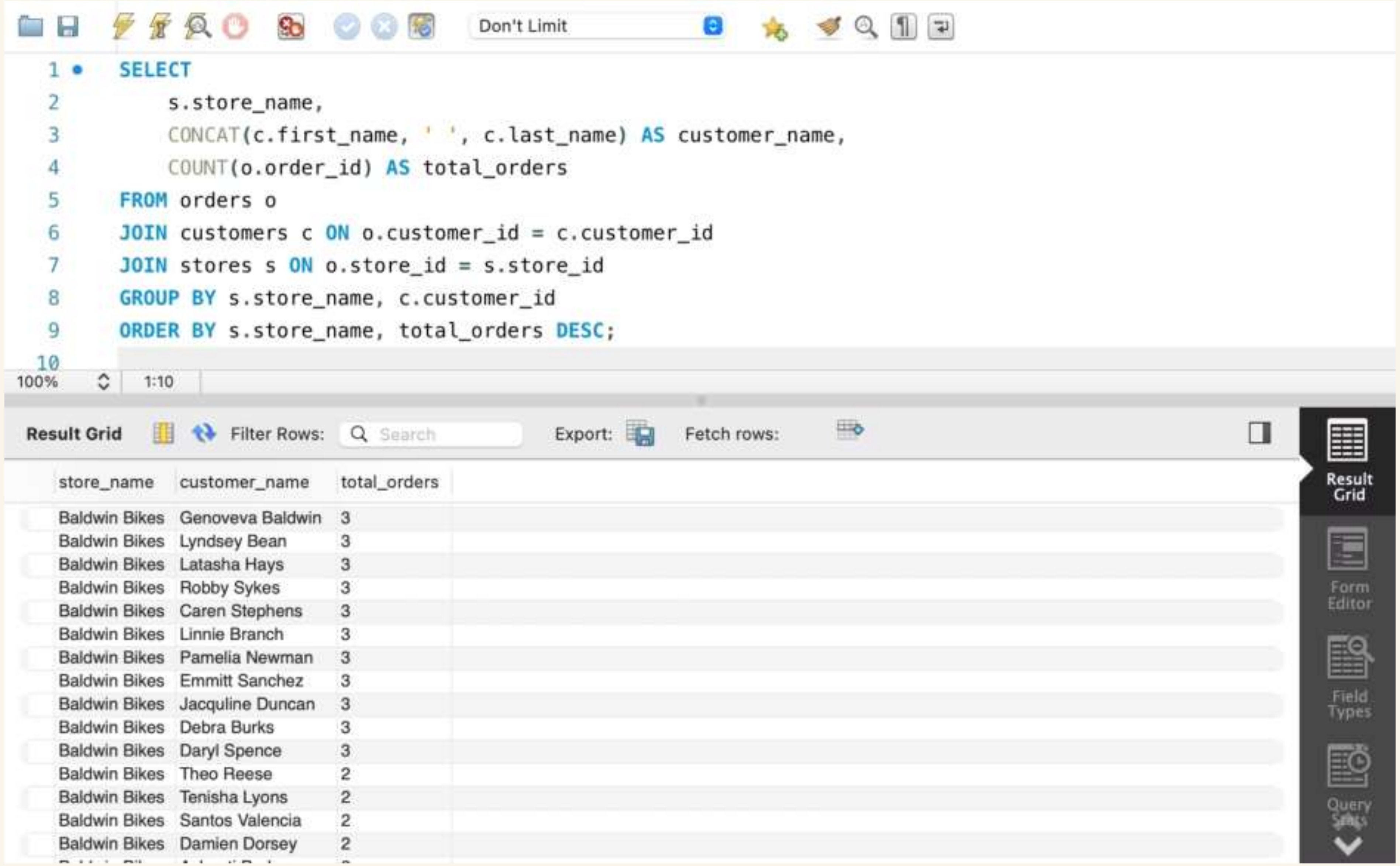
5.Find the highest-priced product for each category name



```sql
SELECT
    c.category_name,
    p.product_name,
    p.list_price
FROM products p
JOIN categories c ON p.category_id = c.category_id
WHERE p.list_price = (
    SELECT MAX(p2.list_price)
    FROM products p2
    WHERE p2.category_id = p.category_id
);
```

category_name	product_name	list_price
Children Bicycles	Electra Straight 8 3i (20-inch) - Boy's - 2017	48999.00
Children Bicycles	Electra Townie 3i EQ (20-inch) - Boys' - 2017	48999.00
Children Bicycles	Trek Superfly 24 - 2017/2018	48999.00
Comfort Bicycles	Electra Townie Go! 8i - 2017/2018	259999.00
Cruisers Bicycles	Electra Townie Commute Go! - 2018	299999.00
Cruisers Bicycles	Electra Townie Commute Go! Ladies' - 2018	299999.00
Cyclocross Bicycles	Trek Boone 7 Disc - 2018	399999.00
Electric Bikes	Trek Powerfly 8 FS Plus - 2017	499999.00
Electric Bikes	Trek Powerfly 7 FS - 2018	499999.00
Electric Bikes	Trek Super Commuter+ 8S - 2018	499999.00
Mountain Bikes	Trek Fuel EX 98 275 Plus - 2017	529999.00
Mountain Bikes	Trek Remedy 98 - 2017	529999.00
Road Bikes	Trek Domane SLR 9 Disc - 2018	1199999....
]

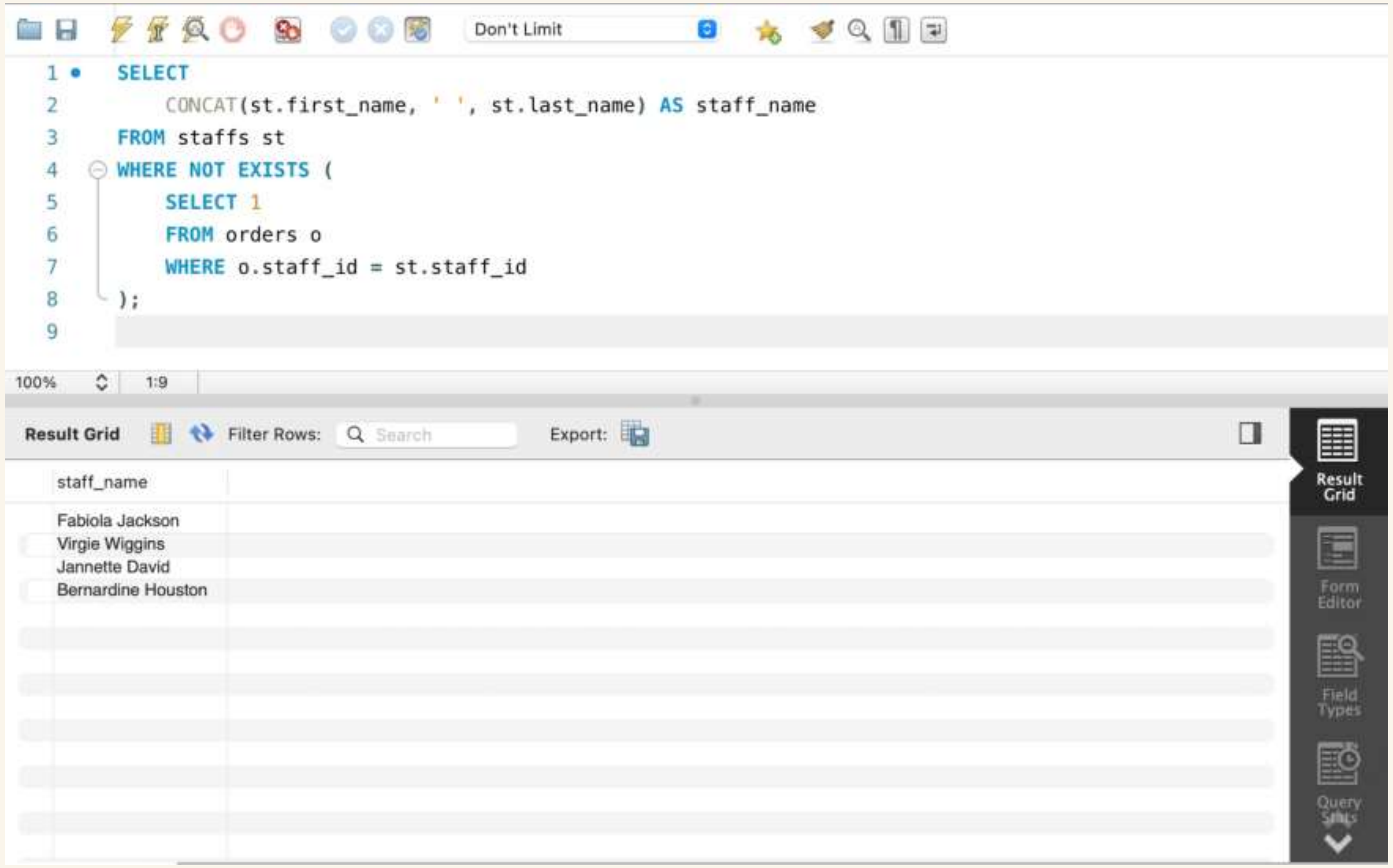
6.Find the total number of orders placed by each customer per store



```sql
SELECT
    s.store_name,
    CONCAT(c.first_name, ' ', c.last_name) AS customer_name,
    COUNT(o.order_id) AS total_orders
FROM orders o
JOIN customers c ON o.customer_id = c.customer_id
JOIN stores s ON o.store_id = s.store_id
GROUP BY s.store_name, c.customer_id
ORDER BY s.store_name, total_orders DESC;
```

store_name	customer_name	total_orders
Baldwin Bikes	Genoveva Baldwin	3
Baldwin Bikes	Lyndsey Bean	3
Baldwin Bikes	Latasha Hays	3
Baldwin Bikes	Robby Sykes	3
Baldwin Bikes	Caren Stephens	3
Baldwin Bikes	Linnie Branch	3
Baldwin Bikes	Pamelia Newman	3
Baldwin Bikes	Emmitt Sanchez	3
Baldwin Bikes	Jacquline Duncan	3
Baldwin Bikes	Debra Burks	3
Baldwin Bikes	Daryl Spence	3
Baldwin Bikes	Theo Reese	2
Baldwin Bikes	Tenisha Lyons	2
Baldwin Bikes	Santos Valencia	2
Baldwin Bikes	Damien Dorsey	2

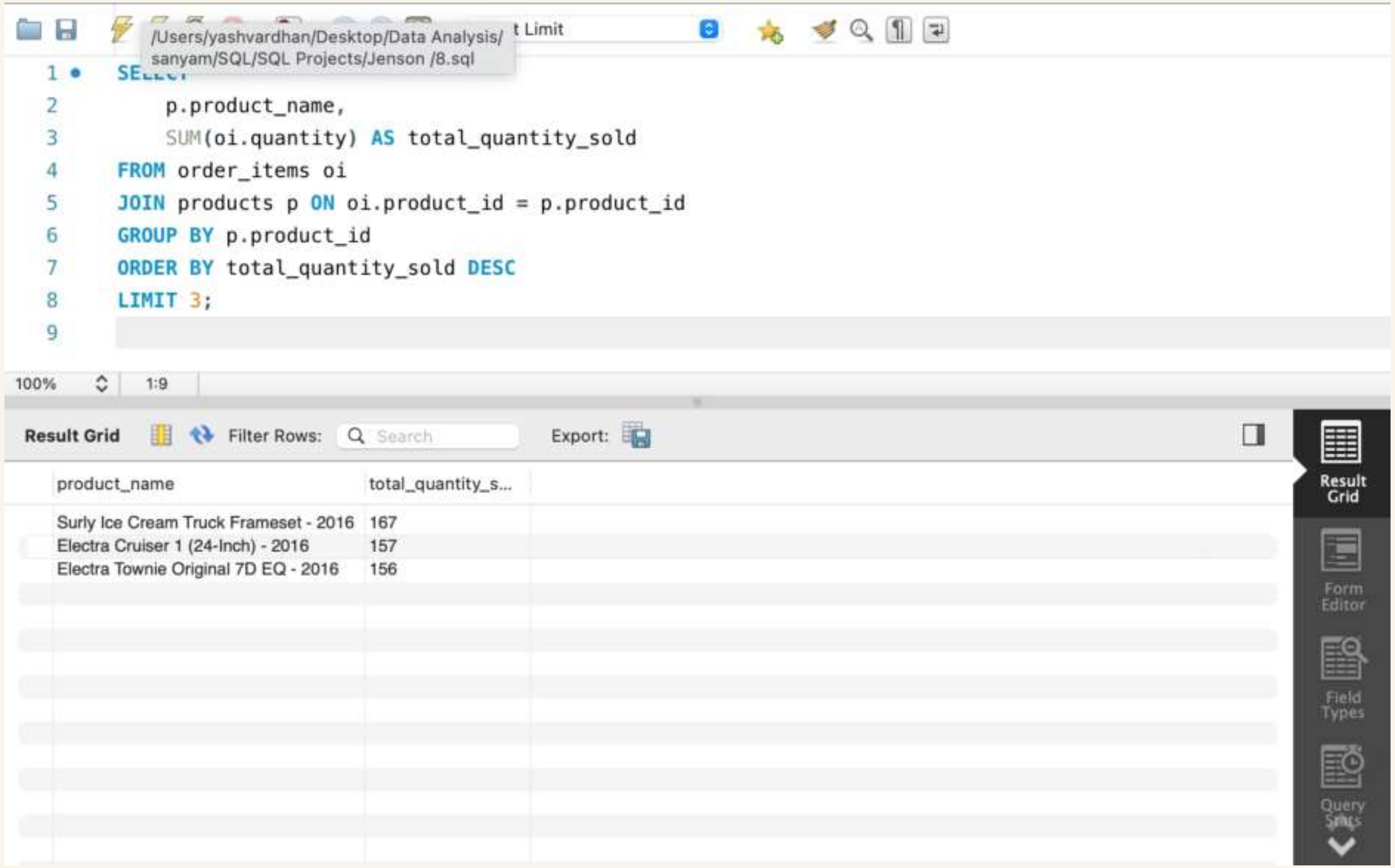
7.Find the names of staff members who have not made any sales



```
SELECT
    CONCAT(st.first_name, ' ', st.last_name) AS staff_name
FROM staffs st
WHERE NOT EXISTS (
    SELECT 1
    FROM orders o
    WHERE o.staff_id = st.staff_id
);
```

```
staff_name
Fabiola Jackson
Virgie Wiggins
Jannette David
Bernardine Houston
```

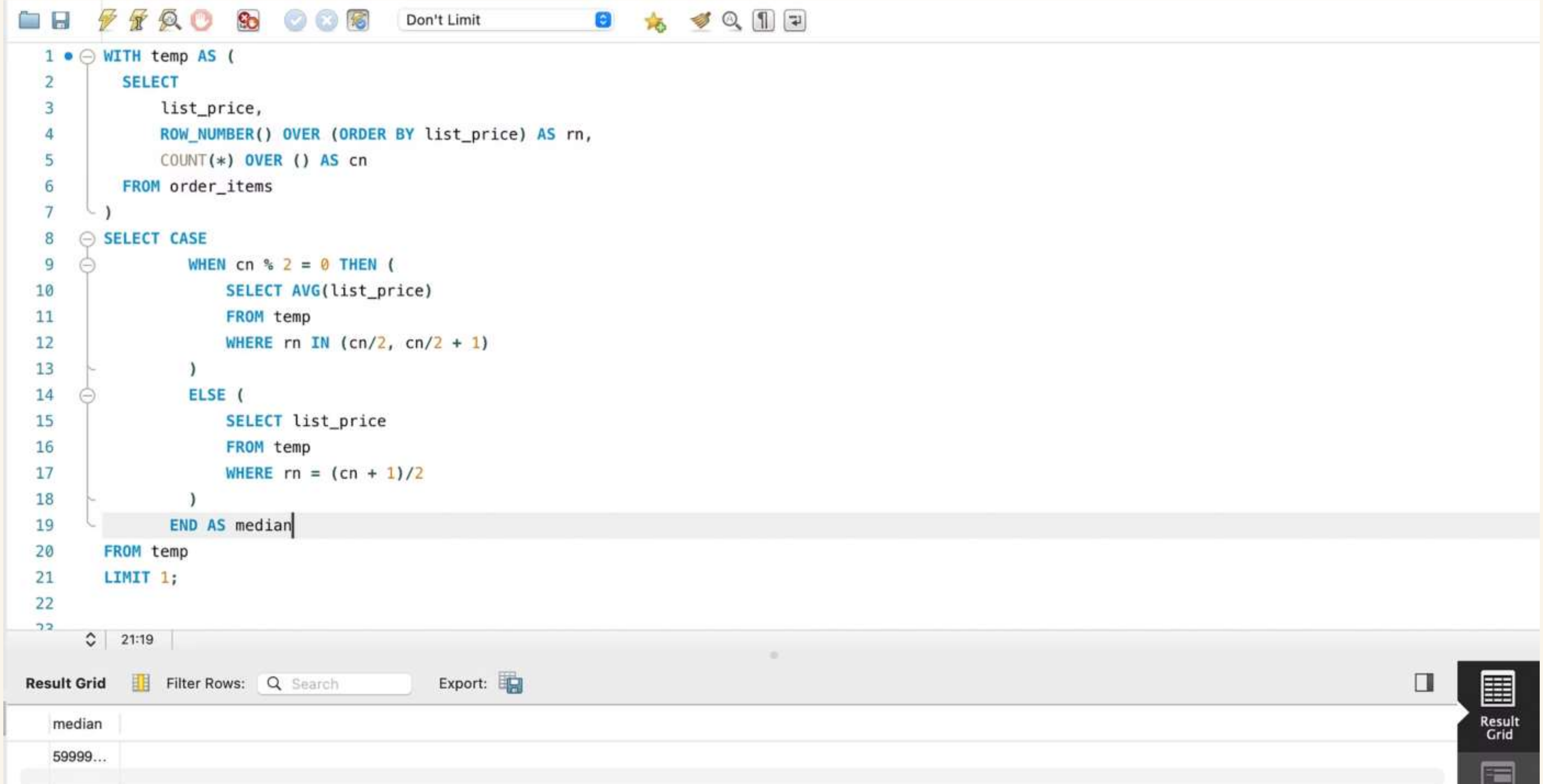
8.Find the top 3 most sold products in terms of quantity



```sql
SELECT
    p.product_name,
    SUM(oi.quantity) AS total_quantity_sold
FROM order_items oi
JOIN products p ON oi.product_id = p.product_id
GROUP BY p.product_id
ORDER BY total_quantity_sold DESC
LIMIT 3;
```

product_name	total_quantity_s...
Surly Ice Cream Truck Frameset - 2016	167
Electra Cruiser 1 (24-Inch) - 2016	157
Electra Townie Original 7D EQ - 2016	156

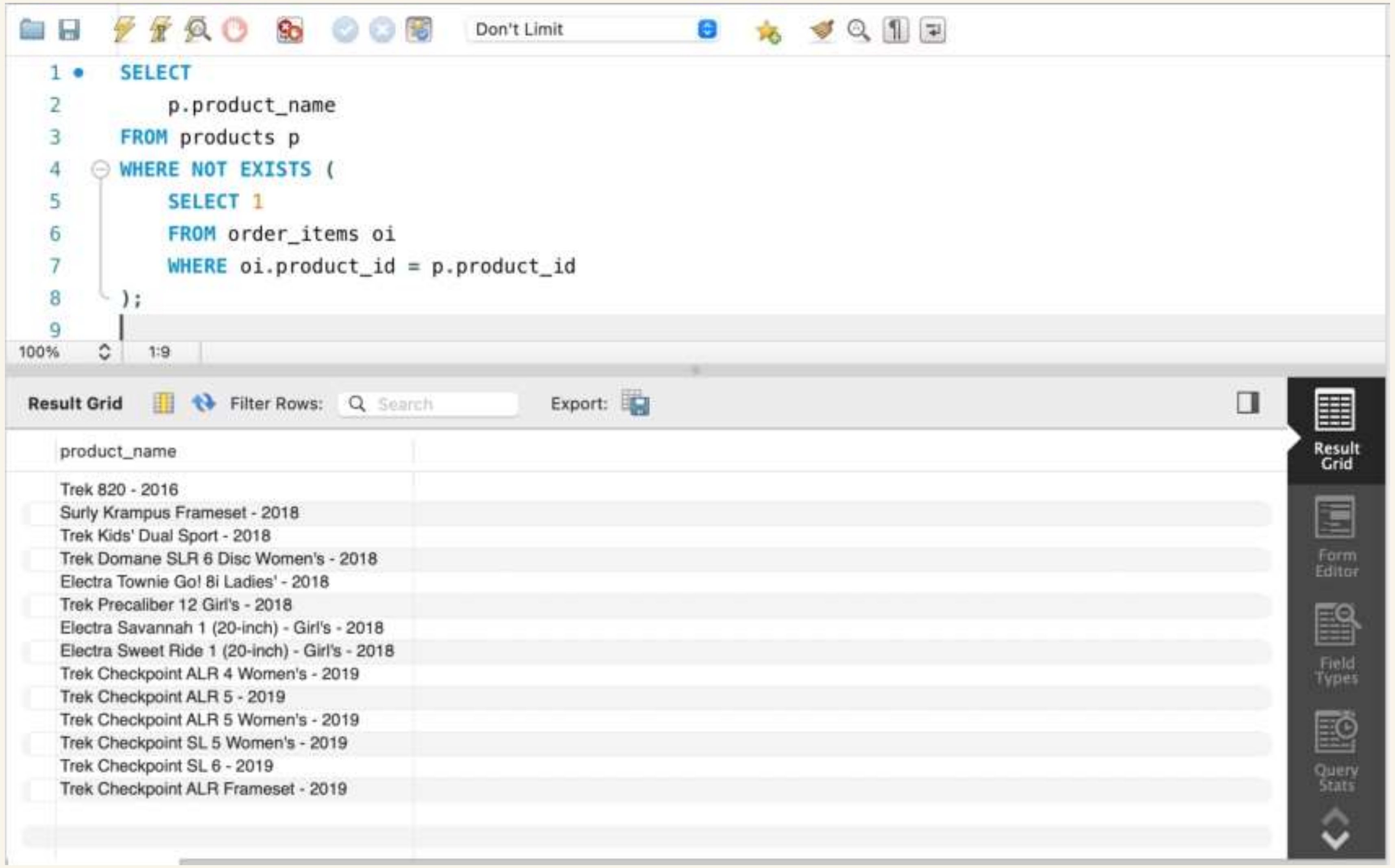
9.Find the median value of the price list



```sql
WITH temp AS (
  SELECT
      list_price,
      ROW_NUMBER() OVER (ORDER BY list_price) AS rn,
      COUNT(*) OVER () AS cn
  FROM order_items
)
SELECT CASE
         WHEN cn % 2 = 0 THEN (
             SELECT AVG(list_price)
             FROM temp
             WHERE rn IN (cn/2, cn/2 + 1)
         )
         ELSE (
             SELECT list_price
             FROM temp
             WHERE rn = (cn + 1)/2
         )
       END AS median
FROM temp
LIMIT 1;
```

median
59999...

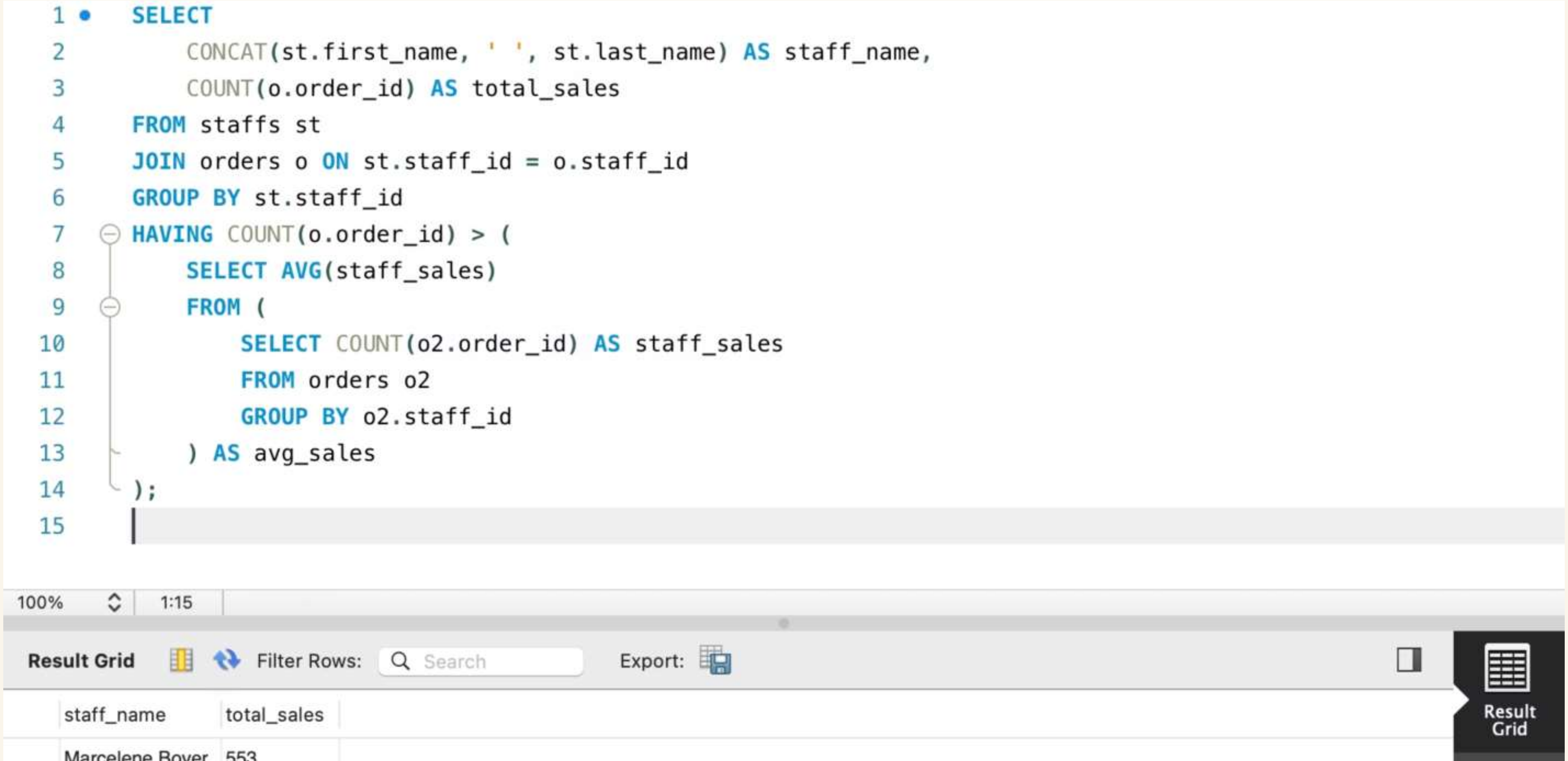
10.List all products that have never been ordered (use EXISTS)



```
SELECT
    p.product_name
FROM products p
WHERE NOT EXISTS (
    SELECT 1
    FROM order_items oi
    WHERE oi.product_id = p.product_id
);
```

product_name
Trek 820 - 2016
Surly Krampus Frameset - 2018
Trek Kids' Dual Sport - 2018
Trek Domane SLR 6 Disc Women's - 2018
Electra Townie Go! 8i Ladies' - 2018
Trek Precaliber 12 Girl's - 2018
Electra Savannah 1 (20-inch) - Girl's - 2018
Electra Sweet Ride 1 (20-inch) - Girl's - 2018
Trek Checkpoint ALR 4 Women's - 2019
Trek Checkpoint ALR 5 - 2019
Trek Checkpoint ALR 5 Women's - 2019
Trek Checkpoint SL 5 Women's - 2019
Trek Checkpoint SL 6 - 2019
Trek Checkpoint ALR Frameset - 2019

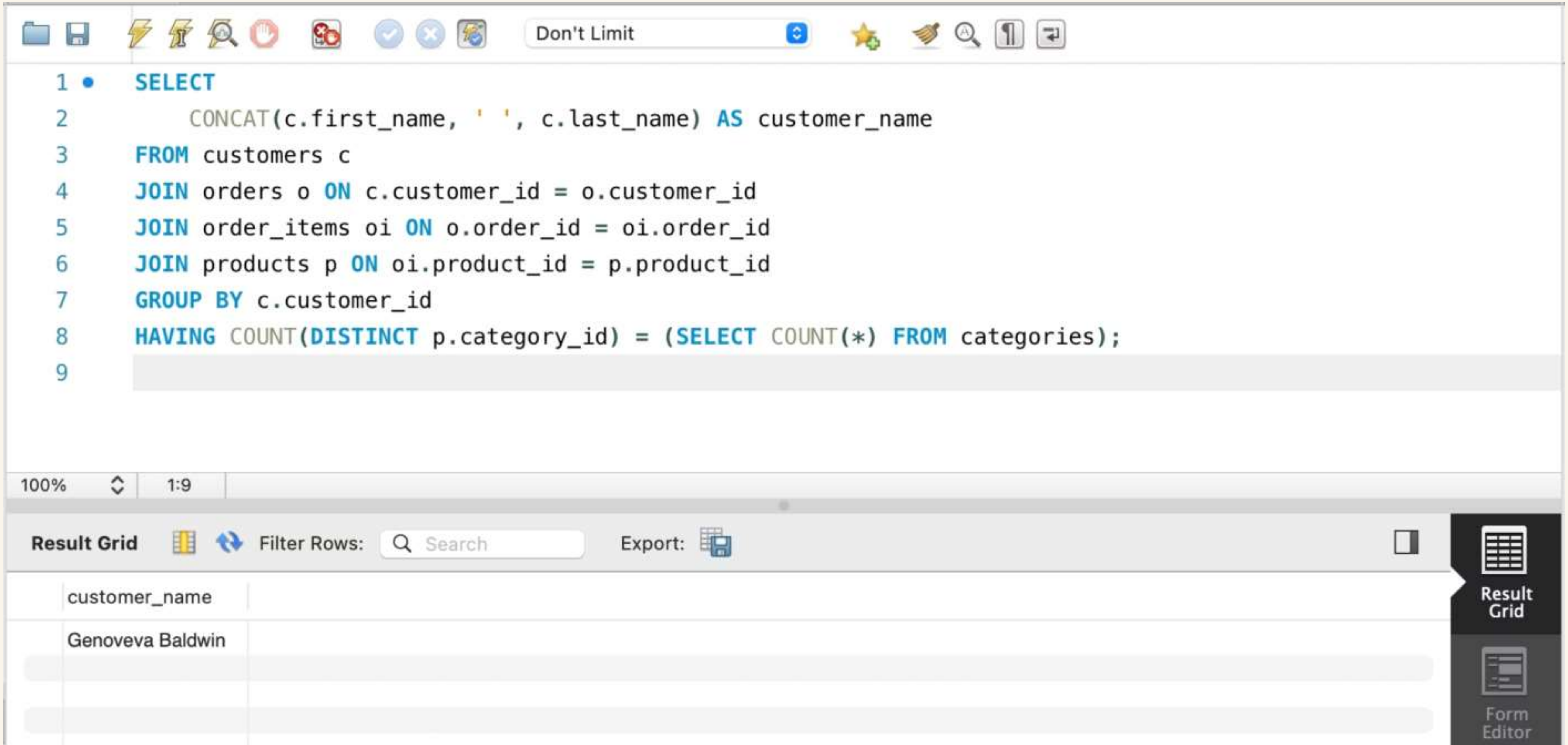
11.List the names of staff members who have made more sales than the average number of sales by all staff members



```
SELECT
    CONCAT(st.first_name, ' ', st.last_name) AS staff_name,
    COUNT(o.order_id) AS total_sales
FROM staffs st
JOIN orders o ON st.staff_id = o.staff_id
GROUP BY st.staff_id
HAVING COUNT(o.order_id) > (
    SELECT AVG(staff_sales)
    FROM (
        SELECT COUNT(o2.order_id) AS staff_sales
        FROM orders o2
        GROUP BY o2.staff_id
    ) AS avg_sales
);
```

staff_name	total_sales
Marcelene Boyer	553

12.Identify the customers who have ordered all types of products (from every category)



```
SELECT
    CONCAT(c.first_name, ' ', c.last_name) AS customer_name
FROM customers c
JOIN orders o ON c.customer_id = o.customer_id
JOIN order_items oi ON o.order_id = oi.order_id
JOIN products p ON oi.product_id = p.product_id
GROUP BY c.customer_id
HAVING COUNT(DISTINCT p.category_id) = (SELECT COUNT(*) FROM categories);
```

customer_name
Genoveva Baldwin

Thank You!

By Sanyam
Sharma