SQL Queries

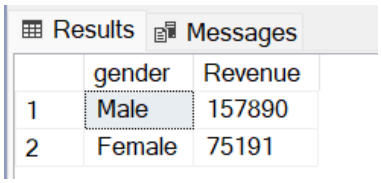
--Q1. What is the total revenue generated by male vs. female customers?

```
SELECT gender, SUM(purchase_amount) as Revenue

FROM customer

GROUP BY gender;
```

Output:



Results | Messages

	gender	Revenue
1	Male	157890
2	Female	75191

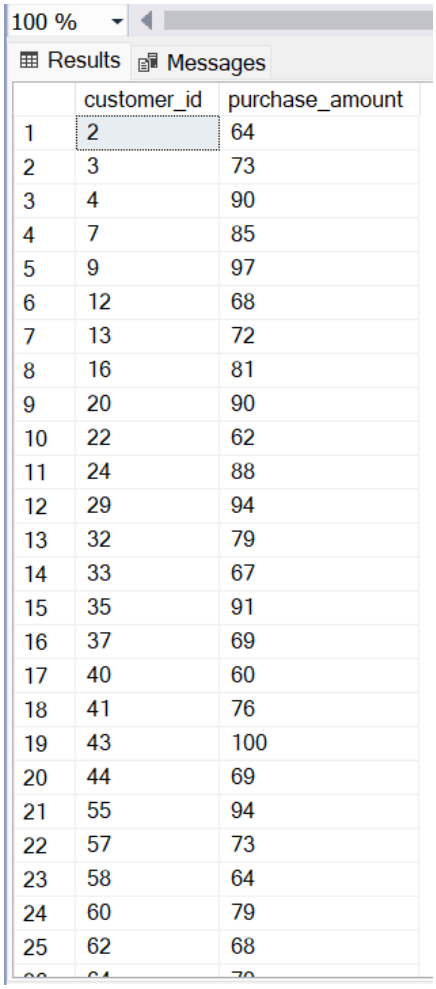
--Q2. Which customers used a discount but still spent more than the average purchase amount?

```
SELECT customer_id, purchase_amount

FROM customer

WHERE discount_applied = 'Yes' AND purchase_amount>(SELECT AVG(purchase_amount) FROM customer);
```

Output:



100 %

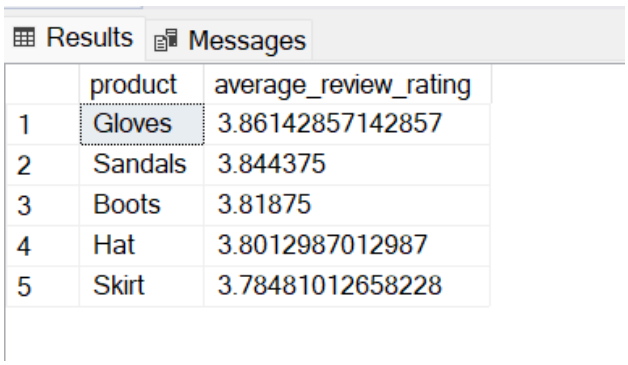
Results Messages

	customer_id	purchase_amount
1	2	64
2	3	73
3	4	90
4	7	85
5	9	97
6	12	68
7	13	72
8	16	81
9	20	90
10	22	62
11	24	88
12	29	94
13	32	79
14	33	67
15	35	91
16	37	69
17	40	60
18	41	76
19	43	100
20	44	69
21	55	94
22	57	73
23	58	64
24	60	79
25	62	68

-- Q3. Which are the top 5 products with the highest average review rating?

```
SELECT TOP 5 item_purchased as product, AVG(review_rating) AS average_review_rating
FROM Customer
GROUP BY item_purchased
ORDER BY average_review_rating DESC;
```

Output:



Results Messages

	product	average_review_rating
1	Gloves	3.86142857142857
2	Sandals	3.844375
3	Boots	3.81875
4	Hat	3.8012987012987
5	Skirt	3.78481012658228

--Q4. Compare the average Purchase Amounts between Standard and Express Shipping.

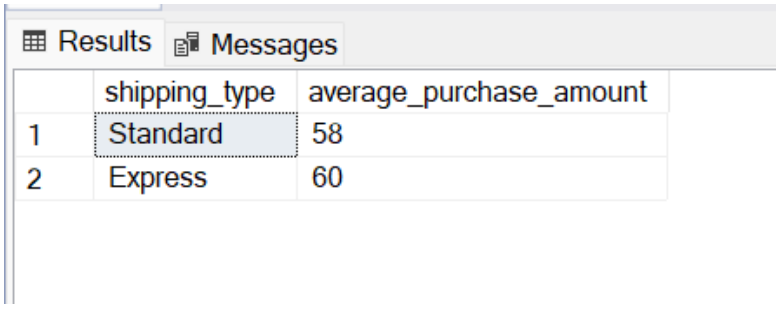
```
SELECT shipping_type, ROUND(AVG(purchase_amount),2) AS average_purchase_amount
```

```
FROM Customer

WHERE shipping_type IN ('Standard', 'Express')

GROUP BY shipping_type;
```

Output:



	shipping_type	average_purchase_amount
1	Standard	58
2	Express	60

--Q5. Do subscribed customers spend more? Compare average spend and total revenue between subscribers and non-subscribers.

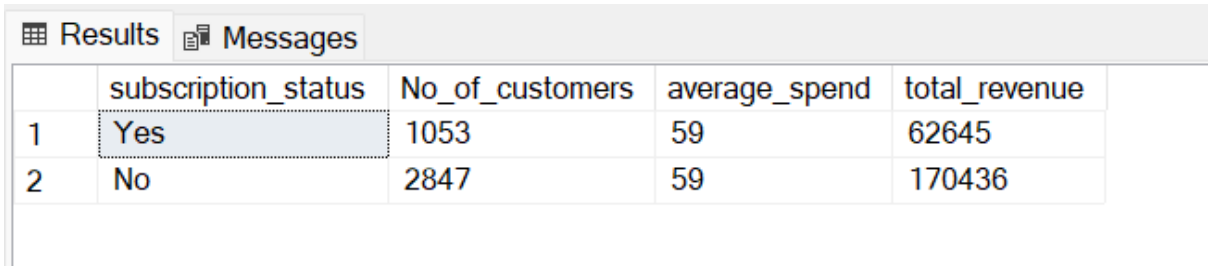
```
SELECT subscription_status, COUNT(customer_id) AS No_of_customers,
ROUND(AVG(purchase_amount),2) AS average_spend, ROUND(SUM(purchase_amount),2) AS
total_revenue

FROM Customer

GROUP BY subscription_status

ORDER  BY total_revenue, average_spend DESC;
```

Output:



	subscription_status	No_of_customers	average_spend	total_revenue
1	Yes	1053	59	62645
2	No	2847	59	170436

--Q6. Which 5 products have the highest percentage of purchases with discounts applied?

```
SELECT TOP 5 item_purchased AS product_name,

 ROUND(100.0 * SUM(CASE WHEN discount_applied = 'Yes' THEN 1 ELSE 0 END)/COUNT(*),2) AS
discount_rate

FROM Customer

GROUP BY item_purchased

ORDER BY discount_rate DESC;
```

Output:

Results Messages

	product_name	discount_rate
1	Hat	50.000000000000
2	Sneakers	49.660000000000
3	Coat	49.070000000000
4	Sweater	48.170000000000
5	Pants	47.370000000000

--Q7. Segment customers into New, Returning, and Loyal based on their total number of previous purchases, and show the count of each segment.

```
with customer_type as (
SELECT customer_id, previous_purchases,
CASE
    WHEN previous_purchases = 1 THEN 'New'
    WHEN previous_purchases BETWEEN 2 AND 10 THEN 'Returning'
    ELSE 'Loyal'
    END AS customer_segment
FROM customer)

select customer_segment,count(*) AS "Number of Customers"
from customer_type
group by customer_segment;
```

Output:

Results Messages

	customer_segment	Number of Customers
1	Returning	701
2	Loyal	3116
3	New	83

--Q8. What are the top 3 most purchased products within each category?

```
WITH item_counts AS (
    SELECT category,
        item_purchased,
        COUNT(customer_id) AS total_orders,
```

```
        ROW_NUMBER() OVER (PARTITION BY category ORDER BY COUNT(customer_id) DESC) AS
item_rank
    FROM customer
    GROUP BY category, item_purchased
)
SELECT item_rank,category, item_purchased, total_orders
FROM item_counts
WHERE item_rank <=3;
```

Output:

Results | Messages

	item_rank	category	item_purchased	total_orders
1	1	Accessories	Jewelry	171
2	2	Accessories	Belt	161
3	3	Accessories	Sunglasses	161
4	1	Clothing	Blouse	171
5	2	Clothing	Pants	171
6	3	Clothing	Shirt	169
7	1	Footwear	Sandals	160
8	2	Footwear	Shoes	150
9	3	Footwear	Sneakers	145
10	1	Outerwear	Jacket	163
11	2	Outerwear	Coat	161

--Q9. Are customers who are repeat buyers (more than 5 previous purchases) also likely to subscribe?

```
SELECT subscription_status,
      COUNT(customer_id) AS repeat_buyers
FROM customer
WHERE previous_purchases > 5
GROUP BY subscription_status;
```

Output:

Results Messages

	subscription_status	repeat_buyers
1	Yes	958
2	No	2518

--Q10. What is the revenue contribution of each age group?

```
SELECT age_group, SUM(purchase_amount) AS Total_revenue
FROM customer
GROUP BY age_group
ORDER BY Total_revenue DESC;
```

Output:

Results Messages

	age_group	Total_revenue
1	Young Adult	62143
2	Middle-aged	59197
3	Adult	55978
4	Senior	55763