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

select gender, SUM(purchase_amount) as revenue

from customer

group by gender

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)

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

select item_purchased, round(avg(review_rating::numeric),2) as "Average Product Rating"

from customer

group by item_purchased

order by avg(review_rating) desc

limit 5

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

select shipping_type,

ROUND(AVG(purchase_amount),2)

from customer

where shipping_type in ('Standard','Express')

group by shipping_type;

Q5. Do subscribed customers spend more? Compare average spend and total revenue

--between subscribers and non-subscribers.

SELECT subscription_status,

    COUNT(customer_id) AS total_customers,

    ROUND(AVG(purchase_amount),2) AS avg_spend,

    ROUND(SUM(purchase_amount),2) AS total_revenue

FROM customer

GROUP BY subscription_status

ORDER BY total_revenue,avg_spend DESC;

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

SELECT item_purchased,

    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

LIMIT 5;

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;

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;
```

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;
```

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;
```