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--Q1. What is the total revenue generated by male vs. female customers?  
select gender, SUM(purchase_amount) as revenue  
from customer  
group by gender
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--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)
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-- 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
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--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;
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--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;
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--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;
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--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 (
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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;

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