SQL Analysis

--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;
```