SQL Code

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use new_om;

show tables;
select * from cleaned_data;

-- total customer
select count(customer_id) as total_customer from  cleaned_data;

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

select gender , sum(purchase_amount) as total_revenue from cleaned_data
group by gender;

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

select customer_id , purchase_amount from cleaned_data  where discount_applied='yes'
and purchase_amount>=(select avg(purchase_amount) from cleaned_data );

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

select item_purchased, avg(round(review_rating)) as avg_rating from cleaned_data gro
up by  item_purchased order by avg_rating desc limit 5;


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

select shipping_type, avg(round(purchase_amount)) as average_Purchase from cleaned_d
ata  where shipping_type in ('Express','Standard') 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_customer , avg(round(purchas
e_amount)) as avg_spend ,
sum(round(purchase_amount)) as total_revenue from cleaned_data group by subscription
_status order by total_revenue, avg_spend desc;


-- Q6. Which 5 products have the highest percentage of purchases with discounts appl
ied?
SELECT item_purchased,
ROUND(100.0 * SUM(CASE WHEN discount_applied = 'Yes' THEN 1 ELSE 0 END)/COUNT(*),2)
AS discount_rate
FROM cleaned_data
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 (
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_seg
    from cleaned_data
    )

select customer_seg , count(*) as total_cust
from customer_type
group by customer_seg;


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

with item_count 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 cleaned_data
    GROUP BY category, item_purchased
)

select item_rank, category,item_purchased , total_orders from item_count where item_
rank<=3;


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

select subscription_status, count(customer_id) as repeat_buyers from cleaned_data
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 cleaned_data group by age_group order by total_revenue desc;



-- Q 11 Purchase frequency by age group
SELECT age_group, COUNT(*) AS purchase_count
FROM cleaned_data
GROUP BY age_group;



-- Q12 total revenue by category
SELECT category, SUM(purchase_amount) AS revenue FROM cleaned_data
GROUP BY category;

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-- Q13 Most popular item size and color
SELECT size, color, COUNT(*) AS count FROM cleaned_data GROUP BY size, color ORDER BY count DESC
LIMIT 5;


-- Q14 Preferred shipping mode
SELECT shipping_type, COUNT(*) AS counts FROM cleaned_data  GROUP BY shipping_type ORDER BY counts DESC;
```