

SQL Code

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1  select * from customer limit 20
2
3  --Q1. What is the total revenue generated by male vs. female customers?
4  select gender, SUM(purchase_amount) as revenue
5  from customer
6  group by gender
7
8  --Q2. Which customers used a discount but still spent more than the average purchase
amount?
9  select customer_id, purchase_amount
10 from customer
11 where discount_applied = 'Yes' and purchase_amount >= (select AVG(purchase_amount) f
rom customer)
12
13 -- Q3. Which are the top 5 products with the highest average review rating?
14 select item_purchased, round(avg(review_rating::numeric),2) as "Average Product Rati
ng"
15 from customer
16 group by item_purchased
17 order by avg(review_rating) desc
18 limit 5
19
20 --Q4. Compare the average Purchase Amounts between Standard and Express Shipping.
21 select shipping_type,
22 ROUND(AVG(purchase_amount),2)
23 from customer
24 where shipping_type in ('Standard', 'Express')
25 group by shipping_type;
26
27 --Q5. Do subscribed customers spend more? Compare average spend and total revenue
28 --between subscribers and non-subscribers.
29 SELECT subscription_status,
30         COUNT(customer_id) AS total_customers,
31         ROUND(AVG(purchase_amount),2) AS avg_spend,
32         ROUND(SUM(purchase_amount),2) AS total_revenue
33 FROM customer
34 GROUP BY subscription_status
35 ORDER BY total_revenue,avg_spend DESC;
36
37 --Q6. Which 5 products have the highest percentage of purchases with discounts appli
ed?
38 SELECT item_purchased,
39         ROUND(100.0 * SUM(CASE WHEN discount_applied = 'Yes' THEN 1 ELSE 0 END)/COUNT
(*) ,2) AS discount_rate
40 FROM customer
41 GROUP BY item_purchased
42 ORDER BY discount_rate DESC
43 LIMIT 5;
44
45
46 --Q7. Segment customers into New, Returning, and Loyal based on their total
47 -- number of previous purchases, and show the count of each segment.

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48 with customer_type as (
49     SELECT customer_id, previous_purchases,
50     CASE
51         WHEN previous_purchases = 1 THEN 'New'
52         WHEN previous_purchases BETWEEN 2 AND 10 THEN 'Returning'
53         ELSE 'Loyal'
54     END AS customer_segment
55     FROM customer)
56
57     select customer_segment, count(*) AS "Number of Customers"
58     from customer_type
59     group by customer_segment;
60
61 --Q8. What are the top 3 most purchased products within each category?
62 WITH item_counts AS (
63     SELECT category,
64             item_purchased,
65             COUNT(customer_id) AS total_orders,
66             ROW_NUMBER() OVER (PARTITION BY category ORDER BY COUNT(customer_id) DES
C) AS item_rank
67             FROM customer
68             GROUP BY category, item_purchased
69     )
70     SELECT item_rank, category, item_purchased, total_orders
71     FROM item_counts
72     WHERE item_rank <=3;
73
74 --Q9. Are customers who are repeat buyers (more than 5 previous purchases) also like
75     ly to subscribe?
76     SELECT subscription_status,
77             COUNT(customer_id) AS repeat_buyers
78     FROM customer
79     WHERE previous_purchases > 5
80     GROUP BY subscription_status;
81
82 --Q10. What is the revenue contribution of each age group?
83     SELECT
84             age_group,
85             SUM(purchase_amount) AS total_revenue
86     FROM customer
87     GROUP BY age_group
88     ORDER BY total_revenue desc;
```