

Zomato SQL Analysis

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OBJECTIVE

The objective of this Zomato SQL analysis project is to examine customer behavior and purchasing patterns on the Zomato platform. By analyzing transactional data, the project aims to derive insights into customer spending, visit frequency, product preferences, membership benefits, and loyalty rewards, facilitating strategic decision-making for Zomato.



QUESTION 1

What is the total amount each customer spent on zomato?

```
select sales.userid,  
sum(product.price) as amount_spent  
from sales  
join product on sales.product_id = product.product_id  
group by sales.userid;
```

OUTPUT

	userid	amount_spent
▶	1	5230
	3	4570
	2	2510



QUESTION 2

How many days each customer visited zomato?

```
select userid, count(distinct created_date) days  
from sales  
group by userid;
```



OUTPUT

	userid	days
1	7	
2	4	
3	5	

QUESTION 3

What was the first product purchased by each customer?

```
select userid, product.product_id,  
product.product_name from  
  (select *, rank() over(partition by userid  
order by created_date asc) rnk  
   from sales) a  
join product on a.product_id = product.product_id  
where rnk = 1;
```

OUTPUT

	userid	product_id	product_name
▶	1	1	pizza
	2	1	pizza
	3	1	pizza



QUESTION 4 (a)

What is the most purchased item on the menu and how many times was it purchased by all customers?

```
select s.product_id, p.product_name,  
count(s.product_id) as p_count  
from sales s  
join product p on s.product_id = p.product_id  
group by s.product_id, p.product_name  
order by p_count desc  
limit 1;
```

OUTPUT

product_id	product_name	p_count
2	burger	7



QUESTION 4 (b)

Find out how many times each customer bought the top-selling item.

```
select userid, count(product_id) as p_count
from sales where product_id =
(select product_id
from sales
group by product_id
order by count(product_id) desc
limit 1)
group by userid;
```

OUTPUT

	userid	p_count
▶	1	3
	3	3
	2	1



QUESTION 5

Which item was the most popular for each customer?

```
with cte as(
    select s.userid,s.product_id,p.product_name,
    count(s.product_id),
    rank() over(partition by s.userid
    order by count(s.product_id) desc) as rn
    from sales s
    join product p on s.product_id = p.product_id
    group by 1,2,3
    order by userid asc, count(product_id) desc
)
select * from cte where rn = 1;
```

userid	product_id	product_name	count(s.product_id)	rn
1	2	burger	3	1
2	3	sandwich	2	1
3	2	burger	3	1

OUTPUT



QUESTION 6

Which item was purchased first by the customer after they became a member?



```
select * from
  (select s.userid, s.product_id, p.product_name,
  s.created_date, g.gold_signup_date,
  row_number() over(partition by userid
order by created_date asc) rn
  from sales s
  join goldusers_signup g on g.userid = s.userid
  join product p on p.product_id = s.product_id
  where created_date >= gold_signup_date
  ) a
where rn =1;
```

OUTPUT

userid	product_id	product_name	created_date	gold_signup_date	rn
1	3	sandwich	2018-03-19	2017-09-22	1
3	2	burger	2017-12-07	2017-04-21	1

QUESTION 7

Which item was purchased just before the customer became a member?

```
select * from
  (select s.userid, s.product_id, p.product_name,
  s.created_date, g.gold_signup_date,
  row_number() over(partition by userid
  order by created_date desc) rn
  from sales s
  join goldusers_signup g on g.userid = s.userid
  join product p on p.product_id = s.product_id
  where created_date <= gold_signup_date
  order by userid asc, created_date desc
  ) a
where rn=1;
```



OUTPUT

	userid	product_id	product_name	created_date	gold_signup_date	rn
▶	1	2	burger	2017-04-19	2017-09-22	1
	3	2	burger	2016-12-20	2017-04-21	1

QUESTION 8

What is the total number of orders and amount spent for each member before they became a member?

```
select s.userid, count(s.product_id) as order_purchased,  
sum(p.price) as total_amt_spent  
from sales s  
join goldusers_signup g on g.userid = s.userid  
join product p on p.product_id = s.product_id  
where created_date < gold_signup_date  
group by userid  
order by userid;
```

OUTPUT



	userid	order_purchased	total_amt_spent
▶	1	5	4030
	3	3	2720

QUESTION 9 (a)

If buying each product generates points for eg 5rs=2 zomato points and each product has different purchasing points for eg p1 5rs=1 zomato point, for p2 2rs=1 zomato point and p3 5rs=1 zomato point. Calculate points collected by each customers.

```
select userid, sum(points) points_earned,  
(sum(points)*2.5) total_cashback_earned from  
(select s.userid,s.product_id,sum(p.price) amount,  
case  
    when s.product_id=1 then round(sum(p.price)/5)  
    when s.product_id=2 then round(sum(p.price)/2)  
    when s.product_id=3 then round(sum(p.price)/5)  
    else 0  
end as points  
from sales s  
join product p on s.product_id = p.product_id  
group by 1,2 order by 1 asc) a  
group by userid;
```



OUTPUT

userid	points_earned	total_cashback
1	1829	4572.5
2	763	1907.5
3	1697	4242.5

QUESTION 9 (b)

For which product most zomato points have been given till now.

```
select product_id,sum(points) total_points from
  (select s.userid,s.product_id,sum(p.price) amount,
  case
    when s.product_id=1 then round(sum(p.price)/5)
    when s.product_id=2 then round(sum(p.price)/2)
    when s.product_id=3 then round(sum(p.price)/5)
    else 0
  end as points
  from sales s
  join product p on s.product_id = p.product_id
  group by 1,2 order by 1 asc) a
group by product_id order by total_points desc limit 1;
```



OUTPUT

product_id	total_points
2	3045

QUESTION 10

In the first year after a customer joins the gold program(including their join date) irrespective of what the customer has purchased they earn 5 zomato points for every 10rs spent, what was their points earnings in their first year?

```
select s.userid, s.product_id, s.created_date,  
g.gold_signup_date, round(p.price/2) total_points_earned  
from sales s  
join goldusers_signup g on g.userid = s.userid  
join product p on p.product_id = s.product_id  
where created_date >= gold_signup_date  
and created_date <= date_add(gold_signup_date,interval 1 year);
```

OUTPUT

userid	product_id	created_date	gold_signup_date	total_points_earned
3	2	2017-12-07	2017-04-21	435
1	3	2018-03-19	2017-09-22	165

QUESTION 11

Rank all the transactions for each member whenever they are a zomato gold member for every non gold member transaction mark as na.

```
select s.userid, s.product_id, s.created_date,  
g.gold_signup_date,  
case  
    when gold_signup_date is null then 'na'  
    else  
        (rank() over(partition by userid order by created_date desc))  
end as rnk  
  
from sales s  
left join goldusers_signup g on s.userid = g.userid  
and created_date >= gold_signup_date;
```

OUTPUT



userid	product_id	created_date	gold_signup_date	rnk
1	2	2019-10-23	2017-09-22	1
1	3	2018-03-19	2017-09-22	2
1	2	2017-04-19	NULL	na
1	2	2017-03-11	NULL	na
1	1	2016-11-09	NULL	na
1	3	2016-05-20	NULL	na
1	1	2016-03-11	NULL	na
2	3	2020-07-20	NULL	na
2	3	2018-09-10	NULL	na
2	2	2017-11-08	NULL	na
2	1	2017-09-24	NULL	na
3	1	2019-12-18	2017-04-21	1
3	2	2017-12-07	2017-04-21	2
3	2	2016-12-20	NULL	na
3	2	2016-12-15	NULL	na
3	1	2016-11-10	NULL	na

**THANK
YOU!**

