

```
use zomato;
```

```
select * from goldusers_signup;  
select * from product;  
select * from sales;  
select * from users;
```

```
select * from goldusers_signup;
```

userid	gold_signup_date
1	2017-09-22
3	2017-04-21

```
select * from product;
```

product_id	product_name	price
1	p1	980
2	p2	870
3	p3	330
NULL	NULL	NULL

```
select * from sales;
```

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

```
select * from users;
```

userid	signup_date
1	2014-09-02
2	2015-01-15
3	2014-04-11
NUL	NUL

# Total Amount spent by each customer on Zomato

```
SELECT  
    a.userid, SUM(b.price) AS Total_price  
FROM  
    sales a  
        INNER JOIN  
    product b  
WHERE  
    a.product_id = b.product_id  
GROUP BY a.userid;
```

userid	Total_price
1	5230
3	4570
2	2510

# How many days has each customer visited the zomato

```
SELECT  
    userid, COUNT(DISTINCT created_date) AS number_of_days  
FROM  
    sales
```

userid	number_of_days
1	7
2	4
3	5

# What was the first product customer purchased by each customer

```
select * from  
(select *,rank() over (partition by userid order by created_date)  
as rnk from sales) a where rnk = 1 ;
```

userid	created_date	product_id	rnk
1	2016-03-11	1	1
2	2017-09-24	1	1
3	2016-11-10	1	1

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

```
SELECT userid, COUNT(product_id) cnt
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
ORDER BY userid;
```

userid	cnt
1	3
2	1
3	3

# Which item was the most popular for each of the customer

```
select * from  
(select *,rank() over  
(partition by userid order by cnt DESC) rnk from  
(select userid,product_id,count(product_id)  
as cnt from sales group by userid, product_id)a)b  
where rnk = 1;
```

userid	product_id	cnt	rnk
1	2	3	1
2	3	2	1
3	2	3	1

# Which item was purchased first by the customer after they become a gold member

```
select * from(select *,rank()
over(partition by userid
order by created_date) rnk
from (select a.userid,a.created_date,a.product_id,b.gold_signup_date
from sales a inner join
goldusers_signup b where
a.userid = b.userid and
created_date>gold_signup_date)c)d where rnk = 1;
```

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

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

```
select * from (select *,rank()
over(partition by userid
order by created_date DESC) rnk
from (select a.userid,a.created_date,
a.product_id,b.gold_signup_date
from sales a inner join goldusers_signup b
where a.userid = b.userid
and created_date <= gold_signup_date)c)d where rnk = 1;
```

userid	created_date	product_id	gold_signup_date	rnk
1	2017-04-19	2	2017-09-22	1
3	2016-12-20	2	2017-04-21	1

# What is the total orders and amount spent by each member before they became a member

```
SELECT userid,  
COUNT(created_date) AS order_count,  
SUM(price) AS total_amount_spent  
FROM(SELECT  
c.*, d.price FROM  
(SELECT a.userid, a.created_date, a.product_id, b.gold_signup_date  
FROM sales a INNER JOIN goldusers_signup b  
WHERE a.userid = b.userid  
AND created_date <= gold_signup_date) c  
INNER JOIN product d ON c.product_id = d.product_id) e  
GROUP BY userid;
```

userid	order_count	total_amount_spent
1	5	4030
3	3	2720

If buying each product generates points for eg 5rs 2 zomato point and each product has different purchasing points for eg for p1 5rs 1 zomato point for p2 10rs 5 zomato points and p3 5rs 1 zomato point \*/

-- Calculate the points collected by each customer and for which product most points have been given till now.

```
select userid,sum(total_points)*2.5 as total_money_earned
from (select e.* , Round(amnt/points,0) as total_points
from (select d.* ,case when product_id = 1 then 5
when product_id = 2 then 2 when product_id = 3
then 5 else 0 end as points from (SELECT
c.userid, c.product_id, SUM(price) as amnt
FROM(SELECT a.* , b.price FROM
sales a INNER JOIN product b ON a.product_id = b.product_id) c
GROUP BY userid , product_id) d)e)f group by userid;
```

```
select h.* from (select g.*,rank() over(order by total_points_earned DESC)
as rnk from (select product_id,sum(total_points) as total_points_earned
from (select e.* , Round(amnt/points,0) as total_points from
(select d.* ,case when product_id = 1 then 5 when product_id = 2
then 2 when product_id = 3 then 5 else 0 end as points from (SELECT
c.userid, c.product_id, SUM(price) as amnt
FROM (SELECT a.* , b.price FROM sales a
INNER JOIN product b ON a.product_id = b.product_id) c
GROUP BY userid , product_id) d)e)f group by product_id)g)h where rnk = 1;
```

product_id	total_points_earned	rnk
2	3045	1

**In the first one 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 10 rs  
spent who earned more more 1 or 3 and what was their points  
earnings in thier first yr? \*/**

```
SELECT c.*, d.price * 0.5 AS total_points_earned
FROM (SELECT a.userid, a.created_date, a.product_id, b.gold_signup_date
      FROM sales a INNER JOIN goldusers_signup b
     WHERE a.userid = b.userid
       AND created_date >= gold_signup_date
       AND created_date < DATE_ADD(gold_signup_date, INTERVAL 1 YEAR)) c
INNER JOIN
product d ON c.product_id = d.product_id;
```

userid	created_date	product_id	gold_signup_date	total_points_earned
1	2018-03-19	3	2017-09-22	165.0
3	2017-12-07	2	2017-04-21	435.0

# Rank all the transactions of the customers

```
select *,rank() over (partition by userid order by created_date) rnk  
from sales;
```

userid	created_date	product_id	rnk
1	2016-03-11	1	1
1	2016-05-20	3	2
	2016-11-09	1	3
	2017-03-11	2	4
	2017-04-19	2	5
	2018-03-19	3	6
	2019-10-23	2	7
2	2017-09-24	1	1
2	2017-11-08	2	2
2	2018-09-10	3	3
2	2020-07-20	3	4
3	2016-11-10	1	1
3	2016-12-15	2	2
3	2016-12-20	2	3
3	2017-12-07	2	4
3	2019-12-18	1	5

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

```
SELECT e.*, CASE WHEN rnk = 0 THEN 'na' ELSE rnk
END AS rnkk FROM (SELECT c.* , CAST(CASE
WHEN gold_signup_date IS NULL THEN 0
ELSE RANK() OVER (PARTITION BY userid ORDER BY created_date DESC)
END AS CHAR) AS rnk
FROM (SELECT a.userid, a.created_date, a.product_id,
b.gold_signup_date FROM sales a LEFT JOIN
goldusers_signup b ON a.userid = b.userid
AND a.created_date > b.gold_signup_date) AS c
) AS e;
```

userid	created_date	product_id	gold_signup_date	rnk	rnkk
1	2019-10-23	2	2017-09-22	1	1
1	2018-03-19	3	2017-09-22	2	2
1	2017-04-19	2	NULL	0	na
1	2017-03-11	2	NULL	0	0
1	2016-11-09	1	NULL	0	na
1	2016-05-20	3	NULL	0	na
1	2016-03-11	1	NULL	0	na
2	2020-07-20	3	NULL	0	na
2	2018-09-10	3	NULL	0	na
2	2017-11-08	2	NULL	0	na
2	2017-09-24	1	NULL	0	na
3	2019-12-18	1	2017-04-21	1	1
3	2017-12-07	2	2017-04-21	2	2
3	2016-12-20	2	NULL	0	na
3	2016-12-15	2	NULL	0	na
3	2016-11-10	1	NULL	0	na