# zomato

# SQL PROJECT

```sql
SELECT * FROM goldusers_signup;
```

## Output

| userid integer | gold_signup_date date |
|---:|---|
| 1 | 2017-09-22 |
| 3 | 2017-04-21 |

```
SELECT * FROM product;
```

## Output

| | product_id<br>integer 🔒 | product_name<br>text 🔒 | price<br>integer 🔒 |
|---|---|---|---|
| 1 | 1 | p1 | 980 |
| 2 | 2 | p2 | 870 |
| 3 | 3 | p3 | 330 |

```sql
SELECT * FROM users;
```

## OUTPUT

| | userid<br>integer 🔒 | signup_date<br>date 🔒 |
|---|---|---|
| 1 | 1 | 2014-09-02 |
| 2 | 2 | 2015-01-15 |
| 3 | 3 | 2014-04-11 |

1. What is the total amount each customer spent on Zomato?

```sql
Select s.userid , sum(p.price) As Total_Amount
From sales As s
Join product As p
On s.product_id = p.product_id
Group by userid
Order by userid;
```

## OUTPUT

| | userid integer | total_amount bigint |
|---|---|---|
| 1 | 1 | 5230 |
| 2 | 2 | 2510 |
| 3 | 3 | 4570 |

2. How many days has **each** customer visited **on** Zomato?

```sql
Select userid , Count(Distinct created_date) As Total_Visit
From sales As s
Group by userid
Order by userid;
```

## OUTPUT

| | userid<br>integer | total_visit<br>bigint |
|---|---|---|
| 1 | 1 | 7 |
| 2 | 2 | 4 |
| 3 | 3 | 5 |

3. What was the **first** product purchased **by each** customer?

```
-------->
Select *
From (Select * , Rank() Over(Partition by userid Order by created_date) As Rank
From sales As s)
Where Rank = 1;
-------->
SELECT DISTINCT ON (userid) *
FROM sales
ORDER BY userid, created_date;
```

## OUTPUT

| | userid integer | created_date date | product_id integer | rank bigint |
|---|---|---|---|---|
| 1 | 1 | 2016-03-11 | 1 | 1 |
| 2 | 2 | 2017-09-24 | 1 | 1 |
| 3 | 3 | 2016-11-10 | 1 | 1 |

**4.** What is the most purchased item in the menu and how many time was it purchased by all customers?

```sql
Select userid , count(product_id)
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 integer 🔒 | count bigint 🔒 |
|---|---|---|
| 1 | 1 | 3 |
| 2 | 2 | 1 |
| 3 | 3 | 3 |

**5.** Which item was the most popular for each 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))
WHERE rnk = 1
```

OUTPUT

| | userid<br>integer | product_id<br>integer | cnt<br>bigint | rnk<br>bigint |
|---|---|---|---|---|
| 1 | 1 | 2 | 3 | 1 |
| 2 | 2 | 3 | 2 | 1 |
| 3 | 3 | 2 | 3 | 1 |

**6.** Which item was purchased **first after** they became gold **member?**

```sql
Select b.*
From (Select a.* , Rank() Over(Partition by userid order by created_date ASC)
From (Select s.userid As userid, s.created_date As created_date , s.product_id As product_id , g.gold_signup_date As gold_signup_date
From sales As s Join goldusers_signup As g On s.userid = g.userid Where s.created_date >= g.gold_signup_date) As a) As b Where rank = 1
```

## OUTPUT

| | userid integer | created_date date | product_id integer | gold_signup_date date | rank bigint |
|---|---|---|---|---|---|
| 1 | 1 | 2018-03-19 | 3 | 2017-09-22 | 1 |
| 2 | 3 | 2017-12-07 | 2 | 2017-04-21 | 1 |

7. Which item was purchased Just before they became gold member?

```
Select b.*
From (Select a.* , Rank() Over(Partition by userid order by created_date DESC)
From (Select s.userid As userid, s.created_date As created_date , s.product_id As product_id , g.gold_signup_date As gold_signup_date
From sales As s Join goldusers_signup As g On s.userid = g.userid Where s.created_date <= g.gold_signup_date) As a) As b Where rank = 1
```

## OUTPUT

| userid integer | created_date date | product_id integer | gold_signup_date date | rank bigint |
|---|---|---|---|---|
| 1 | 1 | 2017-04-19 | 2 | 2017-09-22 | 1 |
| 2 | 3 | 2016-12-20 | 2 | 2017-04-21 | 1 |

8. What is the total **order** **and** total amount spent **by** **each** customers just **before** they become gold **member**?

```sql
Select s.userid , Count(s.created_date) As Total_Order , Sum(p.price) As Total_Amount
From sales As s
Join goldusers_signup As g
On s.userid = g.userid
Join product As p
On s.product_id = p.product_id
Where s.created_date <= g.gold_signup_date
Group by s.userid
Order by s.userid Asc
```

## OUTPUT

|   | userid<br>integer | total_order<br>bigint | total_amount<br>bigint |
|---|---|---|---|
| 1 | 1 | 5 | 4030 |
| 2 | 3 | 3 | 2720 |

```
9. If buying each product generates points for example 5 Rs = 2 Zomato Points
and each product has different purchasing points For example For p1  5 Rs = 1 Zomato Points
, For p2  10 Rs = 5 Zomato Points and For p3  5 Rs = 1 Zomato Points.

Calculate points collected by each customers and for which product most points have been given till now?

-- Part 1 of the question asked points collected by each customers

SELECT a.userid , SUM(ROUND(amount/points,0))*2.5 AS Total_Money_Earned FROM
(
SELECT s.userid , s.product_id , sum(p.price) as amount ,
CASE
WHEN s.product_id = 1 THEN 5
WHEN s.product_id = 2 THEN 2
WHEN s.product_id = 3 THEN 5
ELSE 0
END as points
FROM sales AS s
JOIN product AS p
ON s.product_id = p.product_id
GROUP BY s.userid , s.product_id
ORDER BY s.userid , s.product_id) AS a
GROUP By a.userid
```

**OUTPUT**

| | userid<br>integer | total_money_earned<br>numeric |
|---|---|---|
| 1 | 1 | 4572.5 |
| 2 | 2 | 1907.5 |
| 3 | 3 | 4242.5 |

```
-- Part 2 of the question asked for product most points have been given till now

SELECT a.product_id , SUM(ROUND(amount/points,0)) AS Total_Points_Earned FROM
(
SELECT s.userid , s.product_id , sum(p.price) as amount ,
CASE
WHEN s.product_id = 1 THEN 5
WHEN s.product_id = 2 THEN 2
WHEN s.product_id = 3 THEN 5
ELSE 0
END as points
FROM sales AS s
JOIN product AS p
ON s.product_id = p.product_id
GROUP BY s.userid , s.product_id
ORDER BY s.userid , s.product_id) AS a
GROUP BY a.product_id
ORDER BY Total_Points_Earned DESC
LIMIT 1
```

**OUTPUT**

| | product_id integer | total_points_earned numeric |
|---|---|---|
| 1 | 2 | 3045 |

10. In a first one year after a customer joins the gold membership (including their join date)
irrespective of what the customer has purchased they earn 5 zomato points for every 10 RS spent who earned
more 1 or 3 and what was their earnings in their first year?
1 Zomato Points = Rs 2 or 0.5 Zomato Points = Rs 1

```
SELECT s.userid , s.product_id , s.created_date , g.gold_signup_date , p.price*0.5 AS Points_Earned
FROM sales AS s JOIN goldusers_signup AS g ON s.userid = g.userid
AND s.created_date >= g.gold_signup_date AND s.created_date <= g.gold_signup_date + 365
JOIN product AS p ON s.product_id = p.product_id
ORDER BY Points_Earned DESC
LIMIT 1
```

## OUTPUT

| | userid integer | product_id integer | created_date date | gold_signup_date date | points_earned numeric |
|---|---|---|---|---|---|
| 1 | | 3 | 2 | 2017-12-07 | 2017-04-21 | 435.0 |

## 11. Rank all transactions of the customers?

```sql
SELECT * , RANK() OVER(PARTITION BY userid ORDER BY created_date)
FROM sales
```

OUTPUT

|    | userid<br>integer | created_date<br>date | product_id<br>integer | rank<br>bigint |
|----|----|-----------|---|---|
| 1  | 1  | 2016-03-11 | 1 | 1 |
| 2  | 1  | 2016-05-20 | 3 | 2 |
| 3  | 1  | 2016-11-09 | 1 | 3 |
| 4  | 1  | 2017-03-11 | 2 | 4 |
| 5  | 1  | 2017-04-19 | 2 | 5 |
| 6  | 1  | 2018-03-19 | 3 | 6 |
| 7  | 1  | 2019-10-23 | 2 | 7 |
| 8  | 2  | 2017-09-24 | 1 | 1 |
| 9  | 2  | 2017-11-08 | 2 | 2 |
| 10 | 2  | 2018-09-10 | 3 | 3 |
| 11 | 2  | 2020-07-20 | 3 | 4 |
| 12 | 3  | 2016-11-10 | 1 | 1 |
| 13 | 3  | 2016-12-15 | 2 | 2 |
| 14 | 3  | 2016-12-20 | 2 | 3 |
| 15 | 3  | 2017-12-07 | 2 | 4 |
| 16 | 3  | 2019-12-18 | 1 | 5 |