
SQL - Zomato Project

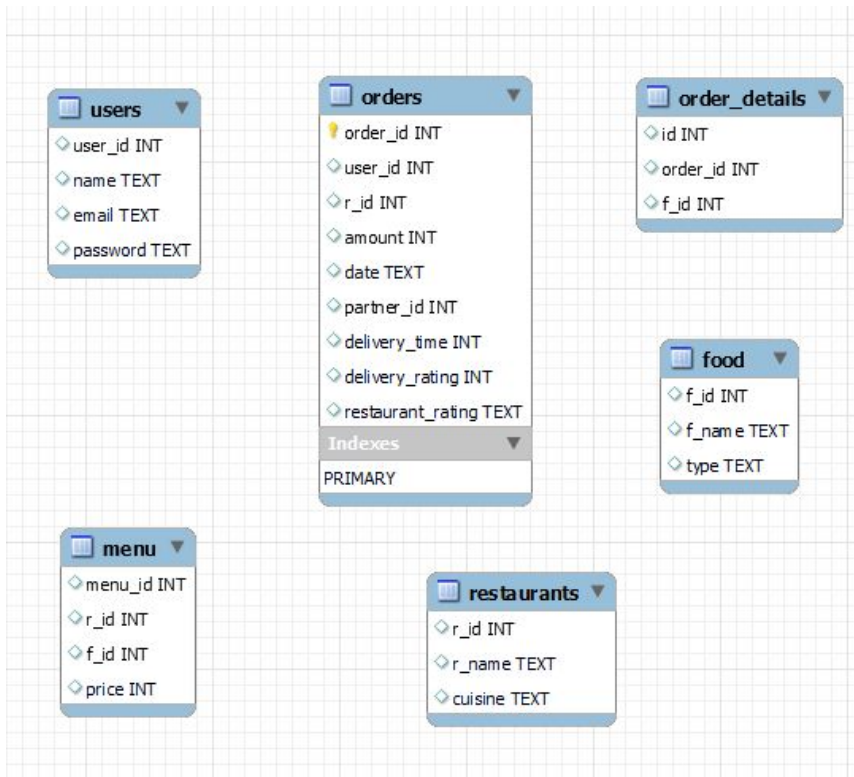
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Introduction

This is an experimental dataset. It contains multiple tables like food, menu, order_details, orders, restaurants, users, etc.

We have used SQL to analyze the dataset of a food delivery company zomato.

The goal of the project is to identify potential customers, high revenue restaurants, most ordered food items, frequent customers, delivery time, etc



Month Over Month Revenue Growth of Zomato


```
select m_name, revenue, ((revenue - previous_month)/previous_month)*100 as 'percent_increase'
from
(
  select *, lag(revenue) over(order by mth) as 'previous_month'
  from
    (
      select monthname(date) as m_name, month(date) as 'mth' , sum(amount) as 'revenue'
      from orders
      group by monthname(date)
      order by month(date)
    ) t1
) t2 ;
```



m_name	revenue	percent_increase
May	2425	NULL
June	3520	45.1546
July	4845	37.6420

Month Over Month Revenue Growth of a Restaurant

```
select r_name, m_name, revenue, ((revenue - previous_month)/previous_month)*100 as 'percent_increase'
from
(
  select *, lag(revenue) over(order by mth) as 'previous_month'
  from
    (
      select r_name, monthname(date) as m_name, month(date) as 'mth' , sum(amount) as 'revenue'
      from orders o
      join restaurants r on o.r_id = r.r_id
      where o.r_id = 1
      group by monthname(date)
      order by month(date)
    ) t1
) t2 ;
```



r_name	m_name	revenue	percent_increase
dominos	May	1000	NULL
dominos	June	950	-5.0000
dominos	July	1100	15.7895

Favourite food of a Customer

```
with cte as (  
    select name, f_name, count(*) as 'frequency' from order_details od  
    join orders o on od.order_id = o.order_id  
    join users u on o.user_id = u.user_id  
    join food f on od.f_id = f.f_id  
    group by u.user_id, od.f_id  
    order by u.user_id, count(*) desc  
)  
select * from cte t1 where t1.frequency = (select max(frequency) from cte t2 where t2.name = t1.name);
```



name	f_name	frequency
Nitish	Choco Lava cake	5
Khushboo	Choco Lava cake	3
Vartika	mirchi	6
Ankit	Schezwan Noodles	3
Ankit	Veg Manchurian	3
Neha	mirchi	6

Loyal Customers (repeated customers to a restaurant)

```
select r_name, name, count(*) as 'no_of_visits' from orders o
join restaurants r on o.r_id = r.r_id
join users u on o.user_id = u.user_id
group by o.r_id, u.user_id having no_of_visits > 1
order by o.r_id , u.user_id desc ;
```



r_name	name	no_of_visits
dominos	Neha	2
kfc	Neha	3
kfc	Vartika	3
box8	Nitish	3
Dosa Plaza	Ankit	3
China Town	Ankit	2

```
select r_name, count(name) as 'no_of_loyal_customers'
from
(
    select r_name, name, count(*) as 'no_of_visits' from orders o
    join restaurants r on o.r_id = r.r_id
    join users u on o.user_id = u.user_id
    group by o.r_id, u.user_id having no_of_visits > 1
    order by o.r_id , u.user_id desc
) t
group by r_name
order by count(name) desc
limit 1;
```



r_name	no_of_loyal_customers
kfc	2

Restaurant with max no of food items

```
select t1.r_id, count(*) from zomato.restaurants t1
join zomato.menu t2
on t1.r_id = t2.r_id
group by t1.r_id
order by count(*) desc limit 5;
```



r_id	count(*)
1	3
2	3
3	3
4	3
5	3

Orders placed by each Customer

```
select t1.user_id, t1.name, count(*) as 'no_of_orders' from zomato.users t1  
join zomato.orders t2  
on t1.user_id = t2.user_id  
group by t1.user_id;
```



user_id	name	no_of_orders
1	Nitish	5
2	Khushboo	5
3	Vartika	6
4	Ankit	5
5	Neha	5

Average Rating for Restaurants

```
select r_id, count(restaurant_rating) as 'no_of_ratings', avg(restaurant_rating) from zomato.orders  
group by r_id;
```



r_id	no_of_ratings	avg(restaurant_rating)
1	5	1
2	8	1.375
3	4	3.5
4	5	2.2
5	3	3.6666666666666665

Favourite food in most Restaurants

```
select t1.f_id, t2.f_name, count(*) from zomato.menu t1
join zomato.food t2
on t1.f_id = t2.f_id
group by t1.f_id
order by count(*) desc limit 1;
```



f_id	f_name	count(*)
3	Choco Lava cake	3

Max Revenue Restaurant in May

```
select t1.r_id, t2.r_name, sum(amount) from zomato.orders t1
join restaurants t2
on t1.r_id = t2.r_id
where monthname(date(date)) = 'May'
group by r_id order by sum(amount) desc;
```



r_id	r_name	sum(amount)
1	dominos	1000
4	Dosa Plaza	780
2	kfc	645

Month by Month Revenue for Restaurant

```
select t1.r_id, t2.r_name, monthname(date(date)), sum(t1.amount) from orders t1
join restaurants t2
on t1.r_id = t2.r_id
group by t1.r_id, monthname(date(date))
order by t2.r_name, monthname(date(date)) desc;
```



r_id	r_name	monthname(date(date))	sum(t1.amount)
5	China Town	July	1050
1	dominos	May	1000
1	dominos	June	950
1	dominos	July	1100
4	Dosa Plaza	May	780
4	Dosa Plaza	June	400
4	Dosa Plaza	July	300
2	kfc	May	645
2	kfc	June	990
2	kfc	July	1935

Sales > 1000

```
select t1.r_id, t2.r_name, sum(t1.amount) as 'sales' from zomato.orders t1
join zomato.restaurants t2
on t1.r_id = t2.r_id
group by t1.r_id having sales > 1000;
```



r_id	r_name	sales
1	dominos	3050
2	kfc	3570
3	box8	1240
4	Dosa Plaza	1480
5	China Town	1450

Customers who never ordered

```
select t2.user_id, t2.name from zomato.orders t1
right join zomato.users t2
on t1.user_id = t2.user_id
where t1.order_id is null;
```



user_id	name
6	Anupama
7	Rishabh

Order Details for a period

```
select t1.order_id, t2.name, t1.amount, t1.date, t4.f_name from zomato.orders t1
join zomato.users t2
on t1.user_id = t2.user_id
join zomato.order_details t3
on t1.order_id = t3.order_id
join zomato.food t4
on t3.f_id = t4.f_id
where t1.user_id = 1 and monthname(date(date)) in ('May', 'June');
```



order_id	name	amount	date	f_name
1001	Nitish	550	2022-05-10	Non-veg Pizza
1004	Nitish	240	2022-06-29	Choco Lava cake
1003	Nitish	240	2022-06-15	Choco Lava cake
1002	Nitish	415	2022-05-26	Choco Lava cake
1001	Nitish	550	2022-05-10	Choco Lava cake
1002	Nitish	415	2022-05-26	mirchi
1004	Nitish	240	2022-06-29	Rice Meal
1003	Nitish	240	2022-06-15	Rice Meal
1002	Nitish	415	2022-05-26	mirchi


```
select t1.order_id, t2.name, t1.amount, t1.date, t4.f_name from zomato.orders t1
join zomato.users t2
on t1.user_id = t2.user_id
join zomato.order_details t3
on t1.order_id = t3.order_id
join zomato.food t4
on t3.f_id = t4.f_id
where t1.user_id = 1 and date between '2022-05-15' and '2022-06-15';
```



order_id	name	amount	date	f_name
1003	Nitish	240	2022-06-15	Choco Lava cake
1002	Nitish	415	2022-05-26	Choco Lava cake
1002	Nitish	415	2022-05-26	mirchi
1003	Nitish	240	2022-06-15	Rice Meal
1002	Nitish	415	2022-05-26	mirchi

Most Expensive Restaurants

```
select t1.r_id, t2.r_name, sum(t1.price)/count(*) as 'avg_price' from zomato.menu t1
join zomato.restaurants t2
on t1.r_id = t2.r_id
group by t1.r_id
order by avg_price desc;
```



r_id	r_name	avg_price
1	dominos	316.6667
5	China Town	216.6667
2	kfc	215.0000
4	Dosa Plaza	176.6667
3	box8	126.6667

Vegetarian Restaurants

```
select t1.type, t3.r_id, t4.r_name from zomato.food t1
join zomato.order_details t2
on t1.f_id = t2.f_id
join zomato.orders t3
on t2.order_id = t3.order_id
join zomato.restaurants t4
on t3.r_id = t4.r_id
group by t4.r_name
having min(type) = 'veg' and max(type) = 'veg';
```



type	r_id	r_name
Veg	3	box8
Veg	5	China Town
Veg	4	Dosa Plaza

Min and Max Order Values

```
select t1.user_id, t2.name, min(t1.amount), max(t1.amount), avg(t1.amount) from zomato.orders t1
join zomato.users t2
on t1.user_id = t2.user_id
group by t1.user_id;
```



user_id	name	min(t1.amount)	max(t1.amount)	avg(t1.amount)
1	Nitish	220	550	333.0000
2	Khushboo	240	950	534.0000
3	Vartika	180	450	270.0000
4	Ankit	300	400	360.0000
5	Neha	550	645	607.0000

Avg Price of a food item

```
select f_name, avg(price) from menu m  
join food f on m.f_id = f.f_id  
group by m.f_id;
```



f_name	avg(price)
Non-veg Pizza	450.0000
Veg Pizza	400.0000
Choco Lava cake	98.3333
mirchi	230.0000
Chicken Popcorn	300.0000
Rice Meal	213.3333

Restaurant with most number of orders

```
select r_name, count(*) as 'no_of_orders' from orders o
join restaurants r on o.r_id = r.r_id
group by o.r_id order by count(*) desc;
```



r_name	no_of_orders
kfc	8
dominos	5
box8	5
Dosa Plaza	5
China Town	3

Restaurant with most number of orders monthwise

```
select r.r_name, monthname(date), count(*) as 'no_of_orders' from orders o
join restaurants r on o.r_id = r.r_id
group by o.r_id, month(date)
order by r.r_name, month(date);
```



r_name	monthname(date)	no_of_orders
box8	June	3
box8	July	2
China Town	June	1
China Town	July	2
dominos	May	2
dominos	June	1
dominos	July	2
Dosa Plaza	May	3
Dosa Plaza	June	1
Dosa Plaza	July	1