








**Table 1**

## Users

Result Grid   Filter Rows: <input type="text"/> Export: 				
	user_id	name	email	password
▶	1	Nitish	nitish@gmail.com	p252h
	2	Khushboo	khushboo@gmail.com	hxn9b
	3	Vartika	vartika@gmail.com	9hu7j
	4	Ankit	ankit@gmail.com	lkko3
	5	Neha	neha@gmail.com	3i7qm
	6	Anupama	anupama@gmail.com	46rdw2
	7	Rishabh	rishabh@gmail.com	4sw 123

**Table 2**

## Orders

Result Grid   Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 									
	order_id	user_id	r_id	amount	date	partner_id	delivery_time	delivery_rating	restaurant_rating
▶	1001	1	1	550	2022-05-10	1	25	5	3
	1002	1	2	415	2022-05-26	1	19	5	2
	1003	1	3	240	2022-06-15	5	29	4	
	1004	1	3	240	2022-06-29	4	42	3	5
	1005	1	3	220	2022-07-10	1	58	1	4
	1006	2	1	950	2022-06-10	2	16	5	
	1007	2	2	530	2022-06-23	3	60	1	5
	1008	2	3	240	2022-07-07	5	33	4	5
	1009	2	4	300	2022-07-17	4	41	1	
	1010	2	5	650	2022-07-31	1	67	1	4
	1011	3	1	450	2022-05-10	2	25	3	1
	1012	3	4	180	2022-05-20	5	33	4	1
	1013	3	2	230	2022-05-30	4	45	3	
	1014	3	2	230	2022-06-11	2	55	1	2
	1015	3	2	230	2022-06-22	3	21	5	
	1016	4	4	300	2022-05-15	3	31	5	5
	1017	4	4	300	2022-05-30	1	50	1	
	1018	4	4	400	2022-06-15	2	40	3	5
	1019	4	5	400	2022-06-30	1	70	2	4
	1020	4	5	400	2022-07-15	3	26	5	3
	1021	5	1	550	2022-07-01	5	22	2	
	1022	5	1	550	2022-07-08	1	34	5	1

**Table 3**

## Order\_details

Result Grid			
Filter Rows:			
	id	order_id	f_id
▶	1	1001	1
	2	1001	3
	3	1002	4
	4	1002	3
	5	1003	6
	6	1003	3
	7	1004	6
	8	1004	3
	9	1005	7
	10	1005	3
	11	1006	1
	12	1006	2
	13	1006	3
	14	1007	4
	15	1007	3
	16	1008	6
	17	1008	3
	18	1009	8
	19	1009	9
	20	1010	10
	21	1010	11
	22	1010	6

**Table 4**

## Food

Result Grid			
Filter Rows:			
	f_id	f_name	type
▶	1	Non-veg Pizza	Non-veg
	2	Veg Pizza	Veg
	3	Choco Lava cake	Veg
	4	Chicken Wings	Non-veg
	5	Chicken Popcorn	Non-veg
	6	Rice Meal	Veg
	7	Roti meal	Veg
	8	Masala Dosa	Veg
	9	Rava Idli	Veg
	10	Schezwan Noodles	Veg
	11	Veg Manchurian	Veg

**Table 5**

## Restaurants

Result Grid				Filter Rows:
	r_id	r_name	cuisine	
▶	1	dominos	Italian	
	2	kfc	American	
	3	box8	North Indian	
	4	Dosa Plaza	South Indian	
	5	China Town	Chinese	

**Table 6**

## Menu

Result Grid					Filter Rows:
	menu_id	r_id	f_id	price	
▶	1	1	1	450	
	2	1	2	400	
	3	1	3	100	
	4	2	3	115	
	5	2	4	230	
	6	2	5	300	
	7	3	3	80	
	8	3	6	160	
	9	3	7	140	
	10	4	6	230	
	11	4	8	180	
	12	4	9	120	
	13	5	6	250	
	14	5	10	220	
	15	5	11	180	

## QUESTIONS

1. Find customers who have never ordered
2. Average Price/dish
3. Find the top restaurant in terms of the number of orders for a given month
4. restaurants with monthly sales greater than x for
5. Show all orders with order details for a particular customer in a particular date range
6. Find restaurants with max repeated customers
7. Month over month revenue growth of Swiggy
8. Customer - favourite food
9. Find the most loyal customers for all restaurant
10. Month-over-month revenue growth of a restaurant
11. most order paired item

## Solutions

### -- find customers who never ordered

```
SELECT users.user_id,name,email FROM users  
LEFT JOIN orders ON users.user_id = orders.user_id  
WHERE orders.user_id IS NULL;
```

	user_id	name	email
▶	6	Anupama	anupama@gmail.com
	7	Rishabh	rishabh@gmail.com

### -- find the avg price per dish

```
SELECT f_name,avg(price) AS avg_price FROM food  
JOIN menu ON food.f_id = menu.f_id  
GROUP BY f_name;
```

	f_name	avg_price
▶	Non-veg Pizza	450.0000
	Veg Pizza	400.0000
	Choco Lava cake	98.3333
	Chicken Wings	230.0000
	Chicken Popcorn	300.0000
	Rice Meal	213.3333
	Roti meal	140.0000
	Masala Dosa	180.0000
	Rava Idli	120.0000
	Schezwan Noodles	220.0000
	Veg Manchurian	180.0000

### -- find top restaurant in terms of orders for a given month (assuming the month as June)

```
SELECT r_name,mmost_orders FROM  
(SELECT MONTHNAME(date) AS months,r_name,count(user_id) AS most_orders FROM  
restaurants  
JOIN orders ON orders.r_id = restaurants.r_id  
GROUP BY MONTHNAME(date),r_name) restaurants  
WHERE months LIKE 'june'
```

ORDER BY most\_orders DESC LIMIT 1

	r_name	most_orders
▶	kfc	3

**-- restaurants with monthly sales > x(any threshold value) (lets assume the month as july and x value as 1000)**

SELECT r\_name,total\_amount FROM

(SELECT r\_name, MONTHNAME (date) as months, SUM(amount) as total\_amount FROM  
restaurants

JOIN orders ON orders.r\_id = restaurants.r\_id

GROUP BY MONTHNAME(date), r\_name

HAVING total\_amount > 1000

)restaurants

WHERE months LIKE 'july';

	r_name	total_amount
▶	China Town	1050
	dominos	1100
	kfc	1935

**-- show all orders with order details for a particular customer in a particular date range (HERE I AM SHOWING DETAILS OF USER "ANKIT" WHOSE USER\_ID IS 4)**

select users.user\_id,orders.order\_id,name,f\_name,r\_name,amount,date from users

left join orders on users.user\_id = orders.user\_id

left join order\_details on orders.order\_id = order\_details.order\_id

left join food on order\_details.f\_id = food.f\_id

left join restaurants on restaurants.r\_id = orders.r\_id

where users.name = 'Ankit'

and (date between '2022-06-10'and'2022-07-10');

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	user_id	order_id	name	f_name	r_name	amount	date
▶	4	1018	Ankit	Veg Manchurian	Dosa Plaza	400	2022-06-15
	4	1018	Ankit	Schezwan Noodles	Dosa Plaza	400	2022-06-15
	4	1019	Ankit	Veg Manchurian	China Town	400	2022-06-30
	4	1019	Ankit	Schezwan Noodles	China Town	400	2022-06-30

### -- restaurant with the max repeated customers or loyal customers

```

select restaurants.r_name,count(*) as loyal_customers from
(select orders.r_id,user_id,count(user_id)as cust_count from orders
group by orders.r_id,user_id
having cust_count > 1
order by r_id) orders
join restaurants on restaurants.r_id= orders.r_id
group by restaurants.r_name
order by loyal_customers desc limit 1;

```

Result Grid		Filter Rows:
	r_name	loyal_customers
▶	kfc	2
	dominos	1
	box8	1
	Dosa Plaza	1
	China Town	1

LIMIT 1

Result Grid		Filter Rows:
	r_name	loyal_customers
▶	kfc	2

### -- restaurants with max customers

```
select r_name,count(user_id)as max_customers from orders
```

```
join restaurants on orders.r_id = restaurants.r_id
```

```
group by r_name
```

```
order by max_customers desc limit 1;
```

Result Grid			Filter Rows:
	r_name	max_customers	
▶	kfc	8	
	dominos	5	
	Dosa Plaza	5	
	box8	4	
	China Town	3	

LIMIT 1

Result Grid			Filter Rows:
	r_name	max_customers	
▶	kfc	8	

### -- month by month revenue of swiggy

```
select month,total_revenue,prev_month,((total_revenue - prev_month/prev_month) * 100) as growth_rate from
```

```
(select monthname(date) as month ,sum(amount) total_revenue,lag(sum(amount)) over(order by monthname(date) desc) as prev_month from orders
```

```
group by monthname(date)) orders;
```

Result Grid					Filter Rows:	Export
	month	total_revenue	prev_month	growth_rate		
▶	May	2425	NULL	NULL		
	June	3220	2425	321900		
	July	4845	3220	484400		

### -- customer favourite food (THE MOST ORDER ITEM BY USERS)

```
select name,f_name from
(select name,f_name, rank() over(partition by name order by count desc) as rnk from
(select name,f_name,count(*)as count from users u
join orders o on o.user_id = u.user_id
join order_details od on o.order_id = od.order_id
join food f on od.f_id = f.f_id
group by 1,2
) users) users where rnk = 1
```

	name	f_name
▶	Ankit	Schezwan Noodles
	Ankit	Veg Manchurian
	Khushboo	Choco Lava cake
	Neha	Choco Lava cake
	Nitish	Choco Lava cake
	Vartika	Chicken Wings

### -- most loyal customer of each restaurant

```
select r_name,loyal_customer from
(select rank() over(partition by r_name order by count desc) as rnk,r_name,name as
loyal_customer,count from
(select r_name,name,count(orders.user_id)as count from orders
join users on orders.user_id = users.user_id
join restaurants on restaurants.r_id = orders.r_id
group by 1,2) orders)orders
where rnk = 1;
```



	r_name	loyal_customer
►	box8	Nitish
	China Town	Ankit
	dominos	Neha
	Dosa Plaza	Ankit
	kfc	Vartika
	kfc	Neha

**-- month over month revenue growth of each restaurant (WE CAN USE WHERE STATEMENT TO CHECK FOR THE PARTICULAR MONTH)**

```
select r_name,revenue,month,((revenue-prev_month/prev_month) * 100) as growth_rate from
(select r_name,sum(amount)as revenue,monthname(date) as month,lag(sum(amount))
over(order by monthname(date)desc) as prev_month from orders
join restaurants on restaurants.r_id = orders.r_id
group by r_name,monthname(date))orders
where month like 'July';
```



	r_name	revenue	month	growth_rate
►	box8	460	July	45900.0000
	Dosa Plaza	300	July	29900.0000
	China Town	1050	July	104900.0000
	dominos	1100	July	109900.0000
	kfc	1935	July	193400.0000

**-- most ordered paired products**

```
select f1.f_name as pair1,f2.f_name as pair2, count(*) as order_count from order_details o1
join order_details o2 on o1.order_id = o2.order_id and o1.f_id < o2.f_id
join food f1 on o1.f_id = f1.f_id
join food f2 on o2.f_id = f2.f_id
group by 1,2
order by order_count desc limit 1;
```

Result Grid   Filter Rows: <input type="text"/> Export			
	pair1	pair2	order_count
▶	Choco Lava cake	Chicken Wings	5
	Non-veg Pizza	Choco Lava cake	4
	Schezwan Noodles	Veg Manchurian	4
	Choco Lava cake	Chicken Popcorn	3
	Chicken Wings	Chicken Popcorn	3
	Choco Lava cake	Rice Meal	3
	Masala Dosa	Rava Idli	3
	Non-veg Pizza	Veg Pizza	1
	Veg Pizza	Choco Lava cake	1
	Choco Lava cake	Roti meal	1
	Rice Meal	Schezwan Noodles	1
	Rice Meal	Veg Manchurian	1

## LIMIT 1

Result Grid   Filter Rows: <input type="text"/> Export			
	pair1	pair2	order_count
▶	Choco Lava cake	Chicken Wings	5