Food_Orders SQL Practice :

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🚀 **SQL Analytics – Food Orders in India**

I'm excited to share one of my recent **SQL data analytics projects** where I analyzed **food orders across restaurants and cities in India**.

🔷 **Objective**: To explore how customer behavior, restaurant performance, and cuisine trends shape the food delivery market.

🔷 **Process**:

- Cleaned and prepared raw datasets (orders, restaurants, users, menu).
- Handled missing values, standardized cuisines, ratings, and restaurant details.
- Applied **SQL joins, aggregations, and window functions** to derive insights.

🔷 **What's Coming Next**:
In the following posts, I'll share my query results with visuals covering:
✅ Top & bottom performing restaurants
✅ City-wise revenue insights
✅ Cuisine demand patterns
✅ User demographics & purchase behavior
✅ Year-over-year revenue trends

This project highlights how **SQL alone** can uncover actionable insights for the **food-tech industry**.

#SQL #DataAnalytics #PostgreSQL #FoodTech #BusinessIntelligence

Query Analysis for food_orders(menu,restaraunt,user,orders)

--1.top 5 restaurant based on sales revenue over last year.

--2.top 10 users who brought more product over last year with restaurant

--3.which city shows as a high revenue city over year and quater

--4.name the bottom three restaurant last year

--5. name the top revenued restaurant over the year

--6.mention the top 3 cities with high orders and bottom with low orders

--7.which status of people shows more interest on orders over year

--8.which 10 cuisines shows a greate sales over last year

--9.mention the restaurants with more orders from users with rating over yearwise

--10.mention each agegroup people with their popular cuision items

--11.which city shows a high sales city

--12.names the restaurant with more selled cuision

--13.top high rated cuisions and bottom rated cuision

--14.overall average rating of restaurants in a particular city

--15.find high demand cuision over last 2 month

--16.age wise average cuision orders

--17.mention which cuisine shows high unitsales

--18.mention the name of user whose makes an orders max with restaurant,quantity,cuisine

--19.give a orders data based on users_occupation

--20.show a top 5 high selling year based on total revenue

--Data Analysis

1. Top 5 restaurant based on sales revenue over last year.

```
select restaurant,cuisine as cuisine,city as city from(
select o.year,r.id,r.name as restaurant ,r.cuisine as cuisine,ceil(mn.price) as unit_price,sum(o.sales_qty) as sales_qty,
ceil(ceil(mn.price)*sum(o.sales_qty)) as total_revenue,
rank() over(partition by o.year order by ceil(ceil(mn.price)*sum(o.sales_qty)) desc) as rank,r.city as city
from
restaurant as r
join menu as mn on r.id=mn.r_id
join orders as o on mn.r_id=o.r_id
group by 1,2,3,4,5 order by 1 desc,8 asc limit 5
)
```

Output

restaurant character varying (100)	cuisine character varying (200)	city character varying (100)
Firangi Bake	Italian,Mexican	Maninagar,Ahmedabad
Huber & Holly	Desserts,Ice Cream	Maninagar,Ahmedabad
Huber & Holly	Desserts,Ice Cream	Maninagar,Ahmedabad
Firangi Bake	Italian,Mexican	Maninagar,Ahmedabad
Divine Dine	North Indian,Chinese	Chandkheda,Ahmedabad

2. Top 10 users who brought more product over last year with restaurant

```
select u.name as user,r.name as restaurant,sum(o.sales_qty) as total_ordered_products
from
users u join orders o on
u.user_id=o.user_id join restaurant r on
o.r_id=r.id
group by 1,2 order by 3 desc limit 10;
```

Output:

	user character varying (30)	restaurant character varying (100)	total_ordered_products bigint
1	Donald Phillips	MAHARAJA GRILLS & ROLLS	14049
2	Michael Martinez	New Hyderabadi Biriyani Zone	10667
3	Lisa Logan	CALLISTO	10667
4	Joe Carter	Iceberg Organic Icecreams	10667
5	Carmen Nelson	Vibezz Kitchen	8800
6	Robert Stevenson	Nandanam Restaurant	8000
7	Philip Smith	Chalu Momos	6667
8	Mr. Dennis Lawrence DVM	Nandhana Palace	6000
9	Justin Moore	PROTEEN CAFE	5333
10	Amanda Johnson	DARJEELING DUMPLING MOM'S & MORE	5333

3. Which city shows as a high revenue city over year and quater

```
select year,quarter,city,total_revenue from(
select o.year as year,o.quarter as quarter,r.city as
city,m.cuisine,ceil(m.price),sum(o.sales_qty),ceil(sum(o.sales_qty)*ceil(m.price)) as total_revenue,
rank() over(partition by o.year,o.quarter order by ceil(sum(o.sales_qty)*sum(m.price)) desc ) as rank
from orders o join menu m on o.r_id=m.r_id join restaurant r on m.r_id=r.id group by 1,2,3,4,5
) where rank = 1 order by year,quarter ;
```

Output:

	year integer	quarter integer	city character varying (100)	total_revenue double precision
1	2017	4	Chandkheda,Ahmedabad	3892397
2	2018	1	Chandkheda,Ahmedabad	5107239
3	2018	2	Agra	437400
4	2018	3	Navrangpura,Ahmedabad	1316700
5	2018	4	Aurangabad	1770720
6	2019	1	Bopal,Ahmedabad	1680000
7	2019	2	Balasore	1364000
8	2019	3	Adityapur	1842750
9	2019	4	Maninagar,Ahmedabad	1548050
10	2020	1	Maninagar,Ahmedabad	1253090
11	2020	2	Chandkheda,Ahmedabad	1168230

4. Name the bottom three restaurant last year

```
select restaurant,cuisine as cuisine,city as city from(
select o.year,r.id,r.name as restaurant ,r.cuisine as cuisine,ceil(mn.price) as unit_price,sum(o.sales_qty) as sales_qty,
ceil(ceil(mn.price)*sum(o.sales_qty)) as total_revenue,
rank() over(partition by o.year order by ceil(ceil(mn.price)*sum(o.sales_qty)) asc) as rank,r.city as city
from
restaurant as r
join menu as mn on r.id=mn.r_id
join orders as o on mn.r_id=o.r_id
group by 1,2,3,4,5 order by 1 desc,8 asc limit 3
)
```

Output:

	restaurant character varying (100)	cuisine character varying (200)	city character varying (100)
1	Om Food Center - Vastrapur Lake	Indian,North Indian	Vastrapur,Ahmedabad
2	No Mad Baker - The Pizzeria	Pizzas	Vastrapur,Ahmedabad
3	Samosa & Co. By TGB (Vastrapur)	Snacks	Vastrapur,Ahmedabad

5. name the top revenued restaurant over the year

```
select year,restaurant,city,total_revenue from(
select o.year as year,r.name as restaurant,r.city as city,m.cuisine,ceil(m.price),sum(o.sales_qty),ceil(sum(o.sales_qty)*ceil(m.price)) as total_revenue,
rank() over(partition by o.year order by ceil(sum(o.sales_qty)*sum(m.price)) desc ) as rank
from orders o join menu m on o.r_id=m.r_id join restaurant r on m.r_id=r.id group by 1,2,3,4,5
) where rank = 1 order by year ;
```

Output:

	year integer	restaurant character varying (100)	city character varying (100)	total_revenue double precision
1	2017	Biryani Villa	Chandkheda,Ahmedabad	3892397
2	2018	Wack Waffles & Brownies	Chandkheda,Ahmedabad	5107239
3	2019	Jiva Hotel	Adityapur	1842750
4	2020	Divine Dine	Chandkheda,Ahmedabad	1165500

6. Mention the top 3 cities with high orders and bottom with low orders


```
select r.city,sum(o.sales_qty) as total_ordered_products
from
orders o join restaurant r on
o.r_id=r.id
group by 1 order by 2 desc limit 3;
```

Output:

	city character varying (100)	total_ordered_products bigint
1	Electronic City,Bangalore	364574
2	Old Gurgaon (Zone 6),Gurgaon	105928
3	Gorakhpur	64308

```
select r.city,sum(o.sales_qty) as total_ordered_products
from
orders o join restaurant r on
o.r_id=r.id
group by 1 order by 2 limit 3;
```

Output:

	city character varying (100)	total_ordered_products bigint
1	BBK_Chattarpur,Delhi	1
2	Mahim Dadar,Mumbai	1
3	Naharlagun	1

7. Which status of people shows more interest on orders over year

```
select u.occupation,sum(o.sales_qty) as total_ordered_products
from
orders o join users u on
o.user_id=u.user_id
group by 1 order by 2 desc;
```

Output:

	occupation character varying (80)	total_ordered_products bigint
1	Student	1279616
2	Employee	758214
3	Self Employeed	355326
4	House wife	51164

8. which 10 cuisines shows a greate sales over last year

select m.cuisine,sum(o.sales_qty) as top_sales from menu m join orders o on m.r_id=o.r_id group by 1 order by 2 desc limit 10;

Output:

	cuisine character varying (100)	top_sales bigint
1	North Indian,Chinese	913959
2	Indian,Chinese	661206
3	Indian	590289
4	North Indian	450398
5	North Indian,Punjabi	325060
6	Pizzas	233670
7	Chinese,North Indian	223898
8	Fast Food	184207
9	Bakery,Desserts	172877
10	South Indian,North Indian	165872

9. Mention the restaurants with more orders from users with rating over yearwise

```
select year,restaurant,total_orders from(
select o.year as year,r.name as restaurant,r.rating as rating,count(o.user_id) as total_orders,
rank() over(partition by o.year order by count(o.user_id) desc) as Rank
from
restaurant r join orders o on r.id=o.r_id
group by 1,2,3 order by 1 desc,4 desc
)where rank=1;
```

Output:

	year integer	restaurant character varying (100)	total_orders bigint
1	2020	Faasos' Signature Wraps & Rolls	26
2	2019	Faasos' Signature Wraps & Rolls	60
3	2018	Faasos' Signature Wraps & Rolls	76
4	2017	Faasos' Signature Wraps & Rolls	16

10. Mention each agegroup people with their popular cuision items

```
select age_group_people,popular_cuisines from(
select u.age as age_group_people,m.cuisine as popular_cuisines,sum(o.sales_qty) as total_orders,
rank() over(partition by u.age order by sum(o.sales_qty) desc )
from users u join orders o
on u.user_id=o.user_id join restaurant r on o.r_id=r.id join menu m on r.id=m.r_id
group by 1,2 order by 1,3 desc
) where rank=1;
```

Output:

	age_group_people integer	popular_cuisines character varying (100)
1	18	North Indian,Chinese
2	19	Ice Cream,Desserts
3	20	North Indian,Chinese
4	21	Indian
5	22	North Indian,Chinese
6	23	North Indian,Punjabi
7	24	Indian,Chinese
8	25	North Indian,Chinese
9	26	Indian,Chinese
10	27	Sweets
11	28	Chinese,North Indian
12	29	Gujarati,Chinese
13	30	Ice Cream,Beverages
14	31	North Indian,Chinese
15	32	Waffle,Desserts
16	33	Indian

:

11.Which city shows a high sales city

```
select r.city,sum(o.sales_qty) as total_ordered_products
from
orders o join restaurant r on
o.r_id=r.id group by 1 order by 2 desc limit 1;
```

Output:

	city character varying (100)	total_ordered_products bigint
1	Electronic City,Bangalore	364574

12.Names the max poduct sales restaurant with more selled cuision

```
select restaurant,top_cuisine from(
select r.name as restaurant,r.cuisine as top_cuisine ,sum(o.sales_qty) as total_orders ,
rank() over(partition by r.name,r.cuisine order by sum(o.sales_qty) desc ) as rank
from restaurant r join orders o on r.id=o.r_id
group by 1,2 order by 3 desc limit 10
)where rank=1;
```

Output:

	restaurant character varying (100)	top_cuisine character varying (200)
1	MAHARAJA GRILLS & ROLLS	North Indian
2	Iceberg Organic Icecreams	Ice Cream
3	New Hyderabadi Biriyani Zone	Chinese,Biryani
4	CALLISTO	Indian,Chinese
5	Vibezz Kitchen	Beverages
6	Domino's Pizza	Pizzas
7	Nandanam Restaurant	Kerala,Biryani
8	Wow! Momo	Tibetan,Healthy Food
9	Chalu Momos	Chinese,Fast Food
10	Nandhana Palace	Biryani,Andhra

13. Top high rated cuisions and bottom/no rated rated cuision

```
select r.cuisine as cuisines , (avg(r.rating)) as top_rating from restaurant r group by 1
order by 2 desc limit 5;
select r.cuisine as cuisines , (avg(r.rating)) as top_rating from restaurant r group by 1
order by 2 asc limit 5;
```

Output:

	cuisines character varying (200)	top_rating double precision
1	Goan,Maharashtrian	4.9
2	Continental,Sweets	4.8
3	Paan,South Indian	4.7
4	Andhra,Combo	4.7
5	Italian-American,Keto	4.7

14. Overall average rating of restaurants in a particular city

```
select r.city as city,r.name as restaurant,avg(r.rating) as rating from restaurant r
 where city = 'Ajmer' and rating<>0 group by 1,2 order by 3 desc;
```

Output:

	city character varying (100)	restaurant character varying (100)	rating double precision
1	Ajmer	Grameen Kulfi	4.7
2	Ajmer	NIC Natural Ice Creams	4.6
3	Ajmer	Neelkamal Restaurant	4.2
4	Ajmer	Cake Craft By Mango Masala	4.2
5	Ajmer	Burger King	4.1
6	Ajmer	Jodha Sweets and Namkeen	4.1
7	Ajmer	Old Town Grill	4
8	Ajmer	Courtyard Kitchen	4
9	Ajmer	Mango Masala Restaurant	4
10	Ajmer	Pandit restaurant	4
11	Ajmer	Mamta Sweets	3.9
12	Ajmer	Shree Jodhpur Sweets	3.9
13	Ajmer	LA PINOZ PIZZA	3.9
14	Ajmer	Sai Chaap Corner	3.8
15	Ajmer	Nothing Before Coffee	3.8
16	Ajmer	Motu Chicken	3.8
17	Ajmer	Love Cafeteria	3.8
18	Ajmer	Jaipur Jungle	3.8

15. Find high demand cuision over last 2 month

```
select year,month,cuisine,top_sales from(
select o.year as year,o.month_name as month,r.cuisine as cuisine,sum(o.sales_qty) as top_sales,
rank() over(partition by o.year,o.month_name order by sum(o.sales_qty) desc ) as rank
from orders o join restaurant r on o.r_id=r.id where o.month_name in ('November','December')
group by 1,2,3 order by 1 desc,2
)where rank=1 limit 2;
```

Output:

	year integer	month character varying (40)	cuisine character varying (200)	top_sales bigint
1	2019	December	South Indian	3852
2	2019	November	North Indian	16270

16. Age wise average cuision orders

select u.age,count(o.user_id) from users u join orders o on u.user_id=o.user_id group by 1 ;

Output:

	age integer	count bigint
1	18	385
2	19	1600
3	20	3432
4	21	8870
5	22	21829
6	23	28074
7	24	19525
8	25	20390
9	26	13801
10	27	8123
11	28	5701
12	29	5499
13	30	3442
14	31	3097
15	32	6136
16	33	377

17. Mention which cuisine shows high unitsales

select r.cuisine as cuisine,sum(o.sales_qty) as top_unitselled_cuisine

from

restaurant r join orders o on r.id=o.r_id

group by 1 order by 2 desc limit 1;

Output:

	cuisine character varying (200)	top_unitselled_cuisine bigint
1	North Indian,Chinese	121654

18. Mention the name of user whose makes an max unit orders with restaurant,cuisine

```
select u.name as user,r.name as restaurant,r.cuisine as cuisine,sum(o.sales_qty) as top_unitOrder
from restaurant r join orders o on r.id=o.r_id join users u
on u.user_id=o.user_id group by 1,2,3 order by 4 desc limit 1;
```

Output:

	user character varying (30)	restaurant character varying (100)	cuisine character varying (200)	top_unitorder bigint
1	Donald Phillips	MAHARAJA GRILLS & ROLLS	North Indian	14049

19. Give a orders data based on users_occupation

```
select u.occupation,sum(o.user_id) as total_orders from users u join orders o on u.user_id=o.user_id
group by 1 order by 2 desc;
```

Output:

	occupation character varying (80)	total_orders bigint
1	Student	3994890423
2	Employee	2291789900
3	Self Employeed	1049039412
4	House wife	173726640

20. Show a top 5 high selling year based on total revenue

```
select year,total_revenue from(
select o.year,ceil(o.sales_qty*m.price) as total_revenue,
rank() over(partition by year order by ceil(o.sales_qty*m.price) desc)
from orders o join menu m on o.r_id=m.r_id
group by 1,2 order by 1 desc
)where rank=1;
```

Output:

	year integer	total_revenue double precision
1	2020	608710
2	2019	482928
3	2018	1259400
4	2017	372000