Pizza sales project (SQL)

SQL analysis detailing pizza sales performance, identifying core revenue drivers, and optimizing operations based on customer behavior trends

Retrieve the total number of orders placed.

```sql
SELECT
    COUNT(order_id) AS Order_placed
FROM
    orders;
```

	order_placed bigint
1	21350

Calculate the total revenue generated from pizza sales.

```sql
SELECT
    SUM(o.quantity * p.price) AS Revenue
FROM
    order_details o
JOIN
    pizzas p ON o.pizza_id = p.pizza_id;
```

	revenue numeric
1	817860.05

Identify the highest-priced pizza.

```sql
select p.name, pz.price as Highest_price_pizza
from pizzas pz
JOIN pizza_types p
ON pz.pizza_type_id = p.pizza_type_id
Group by p.name,pz.price
order by pz.price DESC
Limit 1;
```

	name character varying (100)	highest_price_pizza numeric (10,2)
1	The Greek Pizza	35.95

Identify the most common pizza size ordered.

```
select p.size, Count(o.order_details_id) as count_order
from pizzas p
JOIN order_details o ON p.pizza_id = o.pizza_id
Group by  p.size Order by count_order DESC;
```

	size character varying (50)	count_order bigint
1	L	18526
2	M	15385
3	S	14137
4	XL	544
5	XXL	28

List the top 5 most ordered pizza types along with their quantities.

```sql
select p.name,sum(o.quantity)
from pizza_types p
JOIN pizzas pz
ON p.pizza_type_id = pz.pizza_type_id
JOIN order_details o
On o.pizza_id = pz.pizza_id
Group by p.name
order by sum(o.quantity) DESC
limit 5;
```

	name character varying (100)	sum bigint
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Piz...	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

Join the necessary tables to find the total quantity of each pizza category ordered.

```sql
select p.category, sum(o.quantity)as Total_quantity
From pizza_types p
Join pizzas pz
ON p.pizza_type_id = pz.pizza_type_id
Join order_details o
ON o.pizza_id = pz.pizza_id
Group by p.category
Order by Total_quantity DESC;
```

	category character varying (100)	total_quantity bigint
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

Determine the distribution of orders by hour of the day.

```
select Extract(hour from time) as hours, count(order_id) as Qty
From orders
Group by hours
Order by Qty DESC;
```

	hours numeric	qty bigint
1	12	2520
2	13	2455
3	18	2399
4	17	2336
5	19	2009
6	16	1920
7	20	1642
8	14	1472
9	15	1468
10	11	1231
11	21	1198
12	22	663
13	23	28
14	10	8
15	9	1

Join relevant tables to find the category-wise distribution of pizzas.

```sql
select Distinct(category), count(name) as qty
from pizza_types
group by Distinct(category);
```

	category character varying (100)	qty bigint
1	Chicken	6
2	Classic	8
3	Supreme	9
4	Veggie	9

Group the orders by date and calculate the average number of pizzas ordered per day.

```sql
select round(avg(qty),0) From
(select o.date, sum(od.quantity) as qty
from orders o
JOIN order_details od
ON o.order_id=od.order_id
Group by o.date
order by  o.date) as order_quantity;
```

	round numeric
1	138

Calculate the percentage contribution of each pizza type to total revenue.

```sql
select pt.category, (sum(p.price*o.quantity)/
(select round(sum(o.quantity* p.price),2)as sale
from order_details o
JOIN pizzas p
On o.pizza_id=p.pizza_id))*100 as revenue
from pizza_types pt
Join pizzas p
ON pt.pizza_type_id = p.pizza_type_id
Join order_details o
ON p.pizza_id = o.pizza_id
Group by pt.category;
```

	category character varying (100)	revenue numeric
1	Supreme	25.456311260098839649 00
2	Classic	26.905960255669658886 00
3	Veggie	23.682590927384214451 00
4	Chicken	23.955137556847287014 00

Analyze the top 5 cumulative revenue generated over time.

```
Select sales.date, sum(revenue) over(order by sales.date) as cum_revenue
from
(select o.date, sum(od.quantity*p.price) as revenue
from orders o
Join order_details od
On o.order_id = od.order_id
Join pizzas p
On od.pizza_id = p.pizza_id
Group by o.date) as sales
limit 5;
```

	date date	cum_revenue numeric
1	2015-01-01	2713.85
2	2015-01-02	5445.75
3	2015-01-03	8108.15
4	2015-01-04	9863.60
5	2015-01-05	11929.55

Determine the top 3 most ordered pizza types based on revenue for each pizza category.

```sql
select category, name,revenue
from
(select revenue.category,revenue.name, revenue, rank()
over(partition by category order by revenue DESC) as rn
from
(select pt.category, pt.name, sum(o.quantity*p.price) as revenue
from pizza_types pt
Join pizzas p
On pt.pizza_type_id = p.pizza_type_id
Join order_details o
On o.pizza_id = p.pizza_id
Group by pt.name, pt.category) as revenue) as b
where rn<=3;
```

	category character varying (100)	name character varying (100)	revenue numeric
1	Chicken	The Thai Chicken Pizza	43434.25
2	Chicken	The Barbecue Chicken Piz...	42768.00
3	Chicken	The California Chicken Piz...	41409.50
4	Classic	The Classic Deluxe Pizza	38180.50
5	Classic	The Hawaiian Pizza	32273.25
6	Classic	The Pepperoni Pizza	30161.75
7	Supreme	The Spicy Italian Pizza	34831.25
8	Supreme	The Italian Supreme Pizza	33476.75
9	Supreme	The Sicilian Pizza	30940.50
10	Veggie	The Four Cheese Pizza	32265.70
11	Veggie	The Mexicana Pizza	26780.75
12	Veggie	The Five Cheese Pizza	26066.50

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THANK YOU!