Questions :

(Mostly Intermediate and Advanced)

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

```
-----percentage contribution with respect to pizza category

with cte as
(select
round(sum(od.quantity * pz.price), 2 ) as total_revenue
from order_details as od
join pizza as pz
on od.pizza_id = pz.pizza_id),

rev as
(select
pizza_types.category,
sum(order_details.quantity * pizza.price) as revenue
from order_details join pizza
on order_details.pizza_id = pizza.pizza_id
join pizza_types on pizza_types.pizza_type_id = pizza.pizza_type_id
group by pizza_types.category)

select rev.category,
round((rev.revenue / cte.total_revenue *100.0 ),2) as percentage
from rev, cte
```

	category	percentage
1	Chicken	23.96
2	Supreme	25.46
3	Classic	26.91
4	Veggie	23.68

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

```
select name, revenue from
(select category, name, revenue,
rank() over (partition by category order by revenue desc) as rn
from
(select pizza_types.category, pizza_types.name,
sum((order_details.quantity) * pizza.price) as revenue from pizza_types
join pizza
on pizza_types.pizza_type_id = pizza.pizza_type_id
join order_details
on order_details.pizza_id = pizza.pizza_id
group by pizza_types.category, pizza_types.name) as a) as b
where rn <= 3
```

	name	revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5
4	The Classic Deluxe Pizza	38180.5
5	The Hawaiian Pizza	32273.25
6	The Pepperoni Pizza	30161.75
7	The Spicy Italian Pizza	34831.25
8	The Italian Supreme Pizza	33476.75
9	The Sicilian Pizza	30940.5
10	The Four Cheese Pizza	32265....
11	The Mexicana Pizza	26780.75
12	The Five Cheese Pizza	26066.5

Analyze the cumulative revenue generated over time

```
select date,
sum(revenue) over (order by date) as cum_revenue
from
(select orders.date,
sum(order_details.quantity * pizza.price) as revenue
from order_details join pizza
on order_details.pizza_id = pizza.pizza_id
join orders
on orders.order_id = order_details.order_id
group by orders.date ) as sales
```

	date	cum_revenue
1	2015-01-01	2713.85000228882
2	2015-01-02	5445.7500038147
3	2015-01-03	8108.15000724792
4	2015-01-04	9863.60000801086
5	2015-01-05	11929.5500087738
6	2015-01-06	14358.5000114441
7	2015-01-07	16560.700012207
8	2015-01-08	19399.0500183105
9	2015-01-09	21526.4000225067
10	2015-01-10	23990.350025177
11	2015-01-11	25862.6500263214
12	2015-01-12	27781.7000274658
13	2015-01-13	29831.3000278473
14	2015-01-14	32358.7000293732
15	2015-01-15	34343.5000324249
16	2015-01-16	36937.6500339508
17	2015-01-17	39001.7500343323
18	2015-01-18	40978.6000366211
19	2015-01-19	43365.7500400543
20	2015-01-20	45763.6500415802

Determine the top 3 most ordered pizza category based on revenue

```
select top 3
pizza_types.category,
round(sum(order_details.quantity * pizza.price),2) as revenue
from order_details join pizza
on order_details.pizza_id = pizza.pizza_id
join pizza_types on pizza_types.pizza_type_id = pizza.pizza_type_id
group by pizza_types.category
order by revenue desc
```

	category	revenue
1	Classic	220053.1
2	Supreme	208197
3	Chicken	195919.5

Retrieve the total number of orders placed.

```
select count(distinct(order_id)) as total_orders
from orders
```

	total_orders
1	21350

Calculate the total revenue generated from pizza sales.

```
select top 10
pz.pizza_id,
sum(pz.price * od.quantity) as revenue
from order_details as od
join pizza as pz
on od.pizza_id = pz.pizza_id
group by pz.pizza_id
```

	pizza_id	revenue
1	mexicana_m	7280
2	veggie_veg_l	8646.75
3	ital_veggie_m	8140.5
4	ital_supr_m	15526.5
5	spin_pesto_l	5893
6	spicy_ital_l	23011.75
7	ckn_alfredo_s	1224
8	napolitana_m	6832
9	hawaiian_l	15163.5
10	the_greek_xl	14076

```
select
sum(pz.price * od.quantity) as total_revenue
from order_details as od
join pizza as pz
on od.pizza_id = pz.pizza_id
```

	total_revenue
1	817860.05083847

Identify the highest-priced pizza.

```
select top 1
pizza_id,
 MAX(price) AS maximum
from pizza
group by pizza_id
```

```
order by MAX(price) desc;
```

	pizza_id	maximum
1	the_greek_xxl	35.9500007629395

Identify the most common pizza size ordered.

```
select pizza.size, count(od.order_details_id) as order_count
from pizza
join order_details as od
on pizza.pizza_id = od.pizza_id
group by pizza.size
order by order_count desc
```

	size	order_count
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.

```
select top 5
pt.name,
sum(od.quantity) as quantity
from pizza_types as pt
join pizza as pz
on pt.pizza_type_id = pz.pizza_type_id
join order_details as od
on od.pizza_id =pz.pizza_id
group by pt.name
order by quantity desc
```

	name	quantity
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	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.

```
select
pt.category ,
sum(od.quantity) as total_quantity
from order_details as od
join pizza as pz
on od.pizza_id = pz.pizza_id
join pizza_types as pt
on pt.pizza_type_id = pz.pizza_type_id
```

```
group by pt.category
order by total_quantity
```

	category	total_quantity
1	Chicken	11050
2	Veggie	11649
3	Supreme	11987
4	Classic	14888

Determine the distribution of orders by hour of the day.

```
select
DATEPART(HOUR, time) AS hour_of_day,
COUNT(*) AS order_count
from orders
group by DATEPART(HOUR, time)
order by hour_of_day;
```

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

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

```
select
category,
count(category) as total
from pizza_types
group by category
```

	category	total
1	Chicken	6
2	Classic	8
3	Supreme	9
4	Veggie	9

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

```
--total revenue : 817860.05

with rev as
(select
```

```sql
round(sum(od.quantity * pz.price), 2 ) as total_revenue
from order_details as od
join pizza as pz
on od.pizza_id = pz.pizza_id),
cte as
(select
order_details.pizza_id,
sum((order_details.quantity * pizza.price)) as revenue
from order_details
join pizza
on order_details.pizza_id = pizza.pizza_id
group by order_details.pizza_id)

SELECT
    cte.pizza_id,
    round((cte.revenue * 100.0  / rev.total_revenue),3) AS percentage
FROM
    cte, rev;

Calculate the percentage contribution of each pizza type to total revenue.
select
round(sum(od.quantity * pz.price), 2 ) as total_revenue
from order_details as od
join pizza as pz
on od.pizza_id = pz.pizza
```