SQL For Data Analysis

1) Retrieve the total number of orders placed.

```
SELECT
     COUNT(order_id)
FROM
     orders;
```

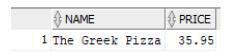


2) Calculate the total revenue generated from pizza sales.



3) Identify the highest-priced pizza.

```
SELECT
    pt.name,
    p.price
FROM
        pizzas p
    JOIN pizza_types pt ON p.pizza_type_id = pt.pizza_type_id
ORDER BY
    p.price DESC
FETCH FIRST 1 ROWS ONLY;
```



4) Identify the most common pizza size ordered.

	₱ PIZZA_SIZE	
1	L	18526
2	M	15385
3	S	14137
4	XL	544
5	XXL	28

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

```
SELECT
   pt.name,
   SUM(od.quantity)   AS total_quantity,
   COUNT(od.order_id)   AS total_orders
FROM
        pizzas p
   JOIN orders_details od ON p.pizza_id = od.pizza_id
   JOIN pizza_types        pt ON pt.pizza_type_id = p.pizza_type_id
GROUP BY
   pt.name
ORDER BY
   SUM(od.quantity)   DESC
FETCH FIRST 5 ROWS ONLY;
```

	NAME	↑ TOTAL_QUANTITY	↑ TOTAL_ORDERS
1	The Classic Deluxe Pizza	2453	2416
2	The Barbecue Chicken Pizza	2432	2372
3	The Hawaiian Pizza	2422	2370
4	The Pepperoni Pizza	2418	2369
5	The Thai Chicken Pizza	2371	2315

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

		↑ TOTAL_QUANTITY
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

7) Determine the distribution of orders by hour of the day.

```
SELECT

EXTRACT(HOUR FROM order_time) AS hrs,

COUNT(order_id) AS total_orders

FROM

orders

GROUP BY

EXTRACT(HOUR FROM order_time)

ORDER BY

total_orders_DESC:
```

	otaı_	orders DESC;
	∯ HRS	↑ TOTAL_ORDERS
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

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

SELECT	
category,	
COUNT(pizza_type_id) AS pizza_typ	рe
FROM	
pizza_types	
GROUP BY	
category;	
CATEGORY	
1 Chicken 6	
2 Classic 8	
3 Supreme 9	
4 Veggie 9	

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

10) Determine the top 3 most ordered pizza types based on revenue.

	∯ NAME	REVENUE REVENUE
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5

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

```
SELECT pt.category,

ROUND(SUM(p.price * od.quantity) / (

SELECT SUM(p2.price * od2.quantity)

FROM pizzas p2

JOIN orders_details od2

ON p2.pizza_id = od2.pizza_id

) * 100, 0) AS revenue

FROM pizza_types pt

JOIN pizzas p

ON pt.pizza_type_id = p.pizza_type_id

JOIN orders_details od

ON p.pizza_id = od.pizza_id

GROUP BY pt.category

ORDER BY revenue DESC;
```

		REVENUE	
1	Classic	27	
2	Supreme	25	
3	Chicken	24	
4	Veggie	24	

12) Analyze the cumulative revenue generated over time.

```
SELECT
   order_date,
   SUM(revenue)
   OVER (
   ORDER BY
     order_date
   ) AS cum revenue
FROM
    (
        SELECT
           orders.order date,
           SUM(orders_details.quantity * pizzas.price) AS revenue
        FROM
                 orders_details
            JOIN pizzas ON orders_details.pizza_id = pizzas.pizza_id
            JOIN orders ON orders.order_id = orders_details.order_id
           orders.order date
    ) sales;
```

	♦ ORDER_DATE	
1	01-01-15	2713.85
2	02-01-15	5445.75
3	03-01-15	8108.15
4	04-01-15	9863.6
5	05-01-15	11929.55
6	06-01-15	14358.5
7	07-01-15	16560.7
8	08-01-15	19399.05
9	09-01-15	21526.4
10	10-01-15	23990.35

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

```
select category, 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(orders_details.quantity*pizzas.price)as revenue
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
join orders_details
on orders_details
on orders_details.pizza_id=pizzas.pizza_id
group by pizza_types.category, pizza_types.name) a) b
where rn<=3;</pre>
```

		NAME	
1	Chicken	The Thai Chicken Pizza	43434.25
2	Chicken	The Barbecue Chicken Pizza	42768
3	Chicken	The California Chicken Pizza	41409.5
4	Classic	The Classic Deluxe Pizza	38180.5
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	30940.5
10	Veggie	The Four Cheese Pizza	32265.7
