

PIZZA SALES ANALYSIS

FAVOURITE
FOOD



BY:- SHRUTI RATHORE





HELLO !

**MY NAME IS SHRUTI RATHORE.
IN THIS PROJECT I HAVE UTILISED SQL
QUERIES TO SOLVE QUESTIONS THAT
WERE RELATED TO PIZZA SALES.**

PROJECT OVERVIEW

THIS PROJECT LEVERAGES SQL TO ANALYZE A COMPREHENSIVE DATASET OF PIZZA SALES, AIMING TO UNCOVER VALUABLE INSIGHTS INTO VARIOUS ASPECTS OF SALES OPERATIONS. THESE INSIGHTS INCLUDE CUSTOMER SEGMENTATION, SALES TRENDS, SALES EFFECTIVENESS, CUSTOMER INTERESTS, EXPENDITURE PATTERNS, AND REVENUE GROWTH.



SQL QUERIES

BASIC:

- RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.
- CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.
- IDENTIFY THE HIGHEST-PRICED PIZZA.
- IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.
- LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.
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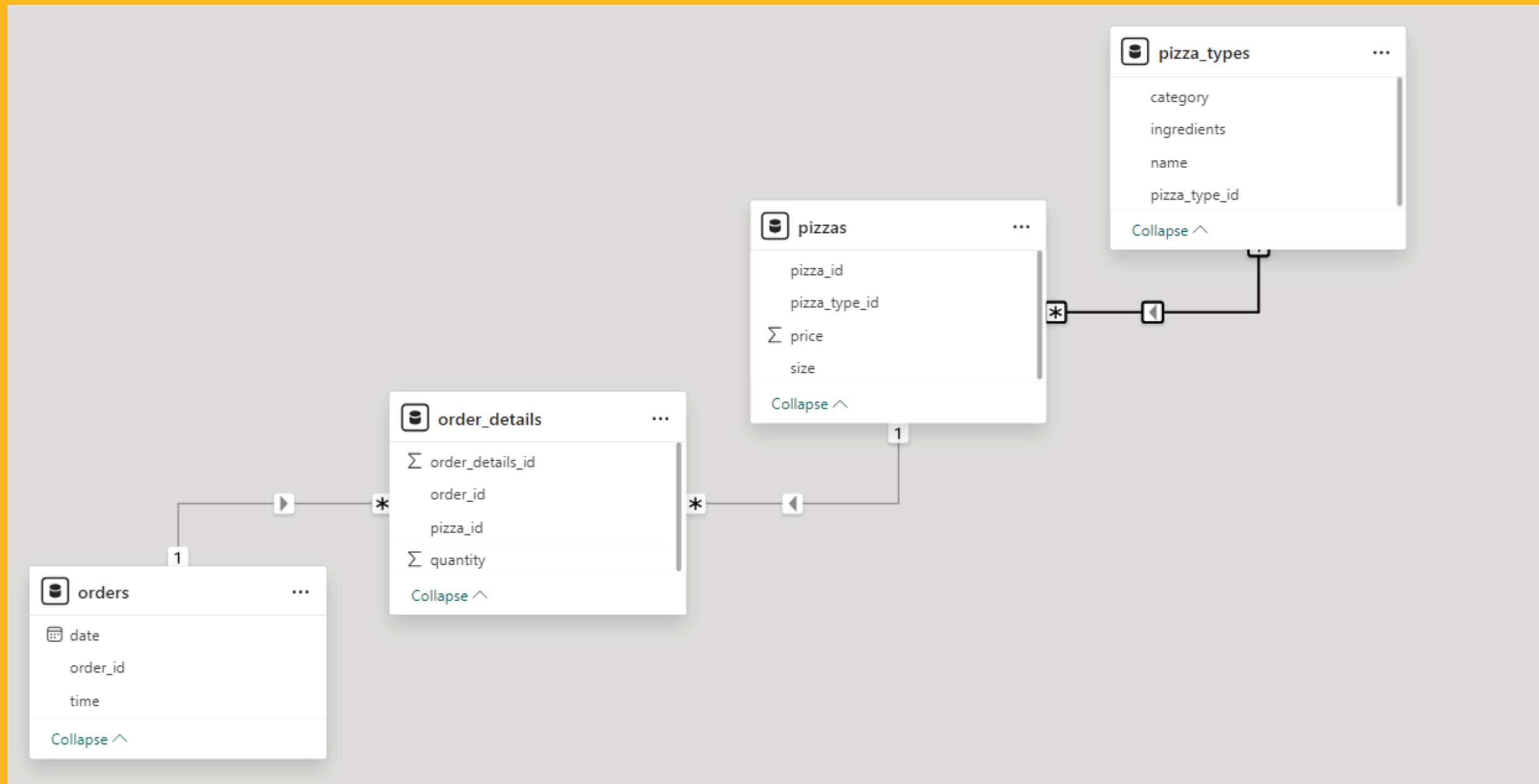
INTERMEDIATE:

- JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.
- DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.
- JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.
- GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.
- DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.
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ADVANCED:

- CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.
- ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.
- DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

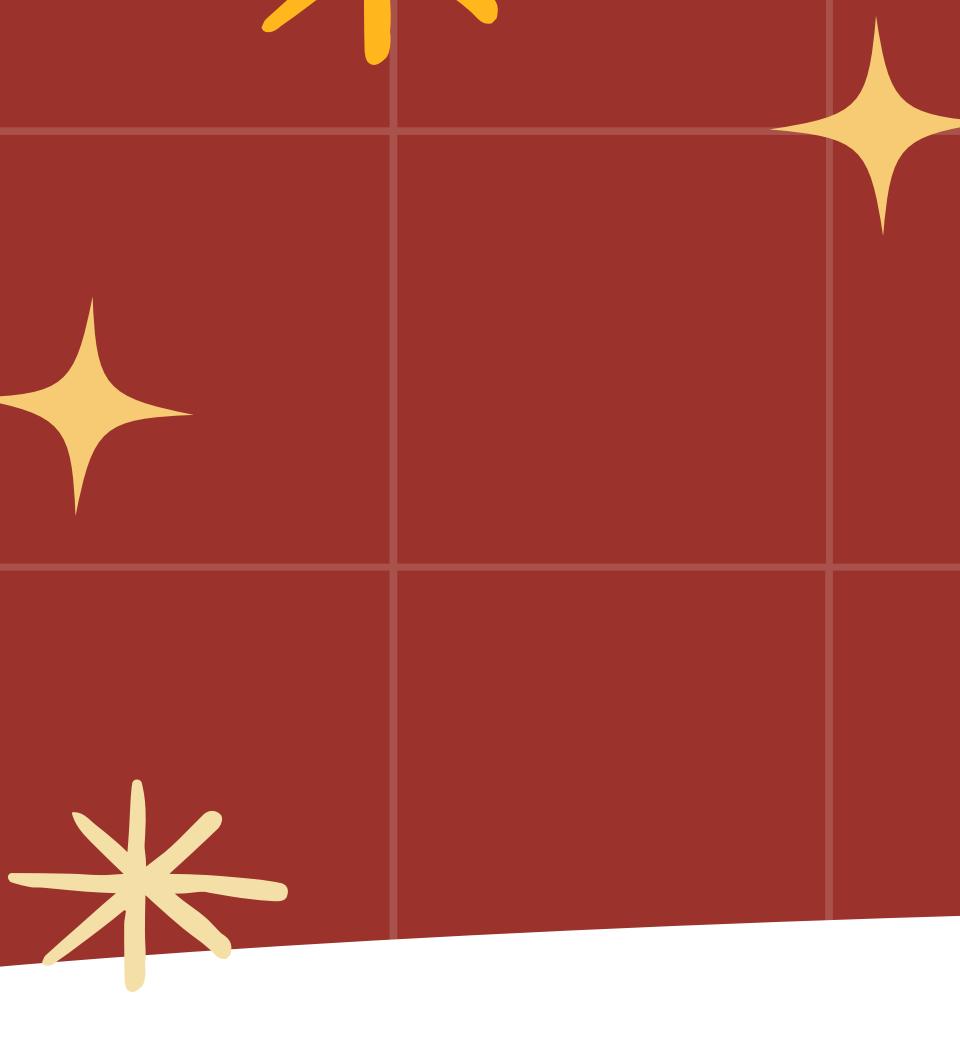
TABLE OVERVIEW





Retrieve the total number of orders placed.

```
SELECT  
    COUNT(ORDER_ID) AS TOTAL_ORDERS  
FROM  
    ORDERS;
```



total_orders
21350



Calculate the total revenue generated from pizza sales.

```
SELECT  
    ROUND(SUM(ORDER_DETAILS.QUANTITY * PIZZAS.PRICE),  
        2) AS TOTAL_SALES  
FROM  
    ORDER_DETAILS  
    JOIN  
    PIZZAS ON PIZZAS.PIZZA_ID = ORDER_DETAILS.PIZZA_ID
```

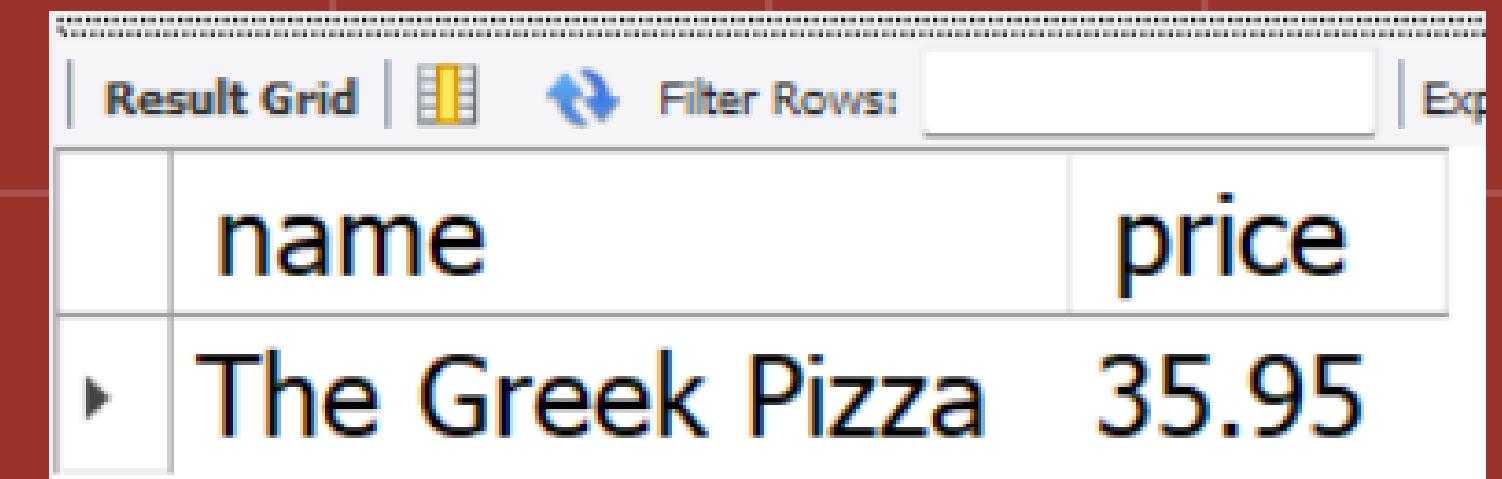


	total_sales
▶	817860.05



Identify the highest-priced pizza.

```
SELECT  
    PIZZA_TYPES.NAME, PIZZAS.PRICE  
FROM  
    PIZZA_TYPES  
    JOIN  
    PIZZAS ON PIZZA_TYPES.PIZZA_TYPE_ID = PIZZAS.PIZZA_TYPE_ID  
ORDER BY PIZZAS.PRICE DESC  
LIMIT 1;
```



	name	price
▶	The Greek Pizza	35.95



Identify the most common pizza size ordered.

```
SELECT  
    PIZZAS.SIZE,  
    COUNT(ORDER_DETAILS.ORDER_DETAILS_ID) AS ORDER_COUNT  
FROM  
    PIZZAS  
    JOIN  
        ORDER_DETAILS ON PIZZAS.PIZZA_ID = ORDER_DETAILS.PIZZA_ID  
GROUP BY PIZZAS.SIZE  
ORDER BY ORDER_COUNT DESC;
```

Result Grid | Filter Rows:

size	order_count
L	18526
M	15385
S	14137
XL	544
XXL	28



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

```
SELECT
    PIZZA_TYPES.NAME, SUM(ORDER_DETAILS.QUANTITY) AS QUANTITY
FROM
    PIZZA_TYPES
    JOIN
    PIZZAS ON PIZZA_TYPES.PIZZA_TYPE_ID = PIZZAS.PIZZA_TYPE_ID
    JOIN
    ORDER_DETAILS ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID
GROUP BY PIZZA_TYPES.NAME
ORDER BY QUANTITY DESC
LIMIT 5;
```

	name	quantity
1	The Classic Deluxe ...	2453
2	The Barbecue Chick...	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pi...	2371



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

```
SELECT  
    PIZZA_TYPES.CATEGORY,  
    SUM(ORDER_DETAILS.QUANTITY) AS QUANTITY  
FROM  
    PIZZA_TYPES  
    JOIN  
    PIZZAS ON PIZZA_TYPES.PIZZA_TYPE_ID = PIZZAS.PIZZA_TYPE_ID  
    JOIN  
    ORDER_DETAILS ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID  
GROUP BY PIZZA_TYPES.CATEGORY  
ORDER BY QUANTITY DESC;
```

Result Grid		Filter Rows:
	category	quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050



Determine the distribution of orders by hour of the day.

```
SELECT  
    HOUR(ORDER_TIME) AS HOUR, COUNT(ORDER_ID) AS ORDER_COUNT  
FROM  
    ORDERS  
GROUP BY HOUR(ORDER_TIME);
```

Result Grid | Filter Rows:

	hour	order_count
▶	11	1231
	12	2520
	13	2455
	14	1472
	15	1468
	16	1920



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

```
SELECT  
    CATEGORY, COUNT(NAME)  
FROM  
    PIZZA_TYPES  
GROUP BY CATEGORY;
```



	category	COUNT(name)
▶	Chicken	6
▶	Classic	8
▶	Supreme	9
▶	Veggie	9



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

```
SELECT  
    ROUND(AVG(QUANTITY), 0) AS AVG_PIZZA_ORDERED_PER_DAY  
FROM  
(SELECT  
    ORDERS.ORDER_DATE, SUM(ORDER_DETAILS.QUANTITY) AS QUANTITY  
FROM  
    ORDERS  
JOIN ORDER_DETAILS ON ORDERS.ORDER_ID = ORDER_DETAILS.ORDER_ID  
GROUP BY ORDERS.ORDER_DATE) AS ORDER_QUANTITY;
```

Result Grid	Filter Rows:
avg_pizza_ordered_pe	
138	



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

```
SELECT  
    PIZZA_TYPES.NAME,  
    SUM(ORDER_DETAILS.QUANTITY * PIZZAS.PRICE) AS REVENUE  
FROM  
    PIZZA_TYPES  
    JOIN  
    PIZZAS ON PIZZAS.PIZZA_TYPE_ID = PIZZA_TYPES.PIZZA_TYPE_ID  
    JOIN  
    ORDER_DETAILS ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID  
GROUP BY PIZZA_TYPES.NAME  
ORDER BY REVENUE DESC  
LIMIT 3;
```

	name	revenue
▶	The Thai Chicken Pi...	43434.25
	The Barbecue Chick...	42768
	The California Chick...	41409.5



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

```
SELECT
    PIZZA_TYPES.CATEGORY,
    ROUND(SUM(ORDER_DETAILS.QUANTITY * PIZZAS.PRICE) / (SELECT
        ROUND(SUM(ORDER_DETAILS.QUANTITY * PIZZAS.PRICE),
        2) AS TOTAL_SALES
    )
FROM
    ORDER_DETAILS
    JOIN
        PIZZAS ON PIZZAS.PIZZA_ID = ORDER_DETAILS.PIZZA_ID) * 100,
    2) AS REVENUE
FROM
    PIZZA_TYPES
    JOIN
        PIZZAS ON PIZZA_TYPES.PIZZA_TYPE_ID = PIZZAS.PIZZA_TYPE_ID
    JOIN
        ORDER_DETAILS ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID
GROUP BY PIZZA_TYPES.CATEGORY
ORDER BY REVENUE DESC;
```

Result Grid		Filter Rows:
	category	revenue
▶	Classic	26.91
	Supreme	25.46
	Chicken	23.96
	Veggie	23.68



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(ORDER_DETAILS.QUANTITY * PIZZAS.PRICE) AS REVENUE  
FROM ORDER_DETAILS  
JOIN PIZZAS  
ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID  
JOIN ORDERS  
ON ORDERS.ORDER_ID = ORDER_DETAILS.ORDER_ID  
GROUP BY ORDERS.ORDER_DATE) AS SALES;
```

order_date	cum_revenue
2015-01-01	2713.8500000000004
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5



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*PIZZAS.PRICE) AS REVENUE  
FROM PIZZA_TYPES  
JOIN PIZZAS  
ON PIZZA_TYPES.PIZZA_TYPE_ID = PIZZAS.PIZZA_TYPE_ID  
JOIN ORDER_DETAILS  
ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID  
GROUP BY PIZZA_TYPES.CATEGORY,  
PIZZA_TYPES.NAME) AS A)AS B  
WHERE RN<=3;
```

	name	revenue
▶	The Thai Chicken Pi...	43434.25
	The Barbecue Chick...	42768
	The California Chick...	41409.5
	The Classic Deluxe ...	38180.5
	The Hawaiian Pizza	32273.25
	The Pepperoni Pizza	30161.75