[Home](#)[About](#)[Insights](#)

# PIZZA SALES DATA ANALYSIS: DRIVING BUSINESS INSIGHTS WITH SQL



- A COMPREHENSIVE LOOK AT REVENUE, ORDER DISTRIBUTION, AND PRODUCT PERFORMANCE.



**SHODWE**

Pizza Resto

Home

About

Insights



# ABOUT US

"DATA ANALYST & SQL  
DEVELOPER"

I am a passionate Data Analyst specializing in transforming raw data into actionable business intelligence. For this project, I engineered complex SQL queries to analyze pizza sales performance, optimize inventory, and identify revenue-driving trends. My focus is on writing efficient, scalable code to solve real-world business challenges.



# THE DATABASE SCHEMA.

EXPLAIN YOUR FOUR PRIMARY DATA SOURCES:



- pizzas: Pricing and size details.
- pizza\_types: Categories and ingredients.
- orders: Timestamps of transactions.
- order\_details: Quantities per order.

# RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```
SELECT  
    COUNT(order_id) AS  
total_orders  
FROM  
orders2;
```

Result Grid  
**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
```

Result Grid  
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;
```

Result Grid

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	
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;
```

Result Grid

name	quantity
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	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

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  
    ORDERS2  
GROUP BY HOUR(ORDER_TIME);
```

	Result Grid
hour	asorder_count
11	1231
12	2520
13	2455
14	1472
15	1468
16	1920
17	2336
18	2399
19	2009
20	1642
21	1198
22	663
23	28
10	8
9	1

# JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.

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

Result Grid

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
        ORDERS2.ORDER_DATE, SUM(ORDER_DETAILS.QUANTITY) AS QUANTITY
    FROM
        ORDERS2
    JOIN ORDER_DETAILS ON ORDERS2.ORDER_ID = ORDER_DETAILS.ORDER_ID
    GROUP BY ORDERS2.ORDER_DATE) AS ORDER_QUANTITY;
```

Result Grid

avg\_pizza\_ordered\_per\_day

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;
```

Result Grid

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	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	
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 ORDERS2.ORDER_DATE,  
SUM(ORDER_DETAILS.QUANTITY * PIZZAS.PRICE) AS REVENUE  
FROM ORDER_DETAILS JOIN PIZZAS  
ON ORDER_DETAILS.PIZZA_ID = PIZZAS.PIZZA_ID  
JOIN ORDERS2  
ON ORDERS2.ORDER_ID = ORDER_DETAILS.ORDER_ID  
GROUP BY ORDERS2.ORDER_DATE) AS SALES;
```

Result Grid

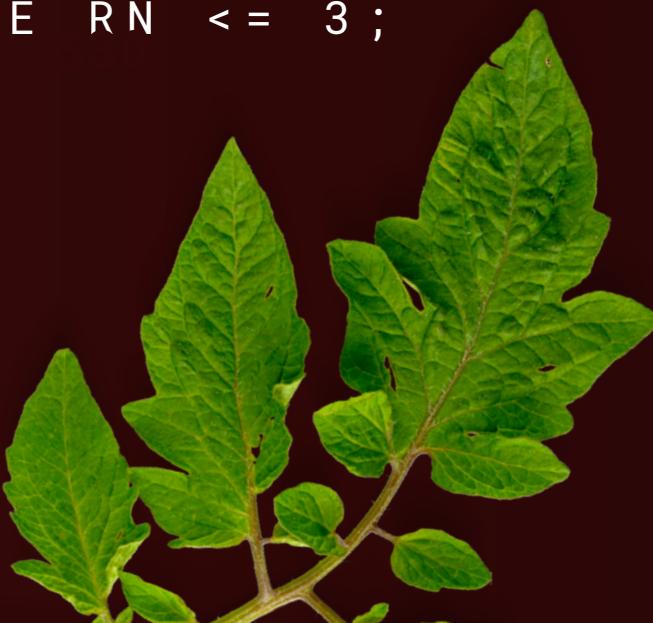
order_date	cum_revenue
2015-01-01	2713.85
2015-01-02	5445.75
2015-01-03	8108.15
2015-01-04	9863.6
2015-01-05	11929.55
2015-01-06	14358.5
2015-01-07	16560.7
2015-01-08	19399.05
2015-01-09	21526.4
2015-01-10	23990.35
2015-01-11	25862.65
2015-01-12	27781.7
2015-01-13	29831.30
2015-01-14	32358.70
2015-01-15	34343.50
2015-01-16	36937.65

# 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 ;
```

## Result Grid

name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5
The Classic Deluxe Pizza	38180.5
The Hawaiian Pizza	32273.25
The Pepperoni Pizza	30161.75
The Spicy Italian Pizza	34831.25
The Italian Supreme Pizza	33476.75
The Sicilian Pizza	30940.5
The four Cheese Pizza	32265.70000000065
The Mexicana Pizza	26780.75
The Five Cheese Pizza	26066.5





# KEY BUSINESS RECOMMENDATIONS

**STAFFING EFFICIENCY:** DATA SHOWS PEAK ORDER VOLUMES OCCUR BETWEEN 12 PM - 1 PM AND 5 PM - 7 PM. WE SHOULD INCREASE KITCHEN AND DELIVERY STAFF DURING THESE WINDOWS TO REDUCE WAIT TIMES.

**MENU OPTIMIZATION:** LARGE (L) SIZE PIZZAS ARE THE MOST POPULAR WITH OVER 18,500 ORDERS. CONVERSELY, XL AND XXL SIZES HAVE VERY LOW DEMAND (LESS THAN 600 COMBINED), SUGGESTING WE CAN REDUCE THEIR INVENTORY TO MINIMIZE WASTE.

**REVENUE GROWTH:** SINCE "THE GREEK PIZZA" IS OUR HIGHEST-PRICED ITEM AT \$35.95, WE SHOULD CREATE PROMOTIONAL BUNDLES FOR THIS PIZZA TO INCREASE THE AVERAGE TRANSACTION VALUE.



# PROJECT CONCLUSION

**DATA INTEGRATION:** BY SUCCESSFULLY JOINING FOUR PRIMARY TABLES—PIZZAS, PIZZA\_TYPES, ORDERS, AND ORDER\_DETAILS—WE ESTABLISHED A COMPREHENSIVE VIEW OF THE BUSINESS OPERATIONS.

**PERFORMANCE METRICS:** THE ANALYSIS SUCCESSFULLY CALCULATED A TOTAL REVENUE OF \$817,860.05 FROM 21,350 TOTAL ORDERS, PROVIDING A CLEAR BENCHMARK FOR ANNUAL PERFORMANCE.

**STRATEGIC VALUE:** USING MYSQL FOR COMPLEX QUERIES ALLOWED US TO TRANSFORM RAW DATA INTO "SLICES OF INSIGHT," IDENTIFYING THAT CLASSIC AND SUPREME CATEGORIES DRIVE THE MAJORITY OF OUR SALES VOLUME.



**SHODWE**

Pizza Resto

Home

About

Insights

# THANK YOU

## FOR ATTENTION

• 2015 PIZZA RESTO PRESENTATION