

PIZZA SALES DATABASE ANALYSIS

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THIS PROJECT PRESENTS AN ANALYTICAL STUDY OF A PIZZA SALES DATABASE USING MYSQL.

DESIGNED AND EXECUTED SQL QUERIES TO ANSWER KEY BUSINESS QUESTIONS.

PRESENTED RESULTS WITH QUERIES AND OUTPUTS FOR CLEAR UNDERSTANDING

THE OBJECTIVE OF THIS PROJECT IS TO DEMONSTRATE SQL PROFICIENCY, DATA-DRIVEN PROBLEM SOLVING, AND THE ABILITY TO TRANSFORM RAW DATA INTO MEANINGFUL BUSINESS INSIGHTS.

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

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

Result Grid	
	Total_orders
▶	21350

CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.

SELECT

```
    ROUND(SUM(orders_details.quantity * pizzas.price),  
          2) AS TOTAL_SALES
```

FROM

```
    orders_details
```

JOIN

```
    pizzas ON pizzas.pizza_id = orders_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		Filter Rows:
	name	price
▶	The Greek Pizza	35.95

IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.

```
SELECT
    pizzas.size,
    COUNT(orders_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC
LIMIT 1;
```

Result Grid | Filter

	size	order_count
▶	L	18526

LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

```
SELECT
    pizza_types.name, SUM(orders_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY quantity DESC
LIMIT 5;
```

	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(orders_details.quantity) AS quantity
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY quantity DESC;
```

	category	quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.

SELECT

HOUR(order_time), COUNT(order_id) AS order_count

FROM

orders

GROUP BY HOUR(order_time);

hour (order_time)	order_coun
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 PIZZA

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(orders_details.quantity) AS quantity

FROM

orders

JOIN orders_details ON orders.order_id = orders_details.order_id

GROUP BY orders.order_date) AS order_quantity;

Result Grid



Filter Rows

	avg_pizza_ordered_per_day
▶	138

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

```
SELECT
    pizza_types.name,
    SUM(orders_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
    JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
    JOIN
    orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3;
```

	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(orders_details.quantity * pizzas.price) / (SELECT
        ROUND(SUM(orders_details.quantity * pizzas.price),
        2) AS TOTAL_SALES
    )
    FROM
        orders_details
        JOIN
            pizzas ON pizzas.pizza_id = orders_details.pizza_id) * 100,
    2) AS revenue
FROM
    pizza_types
    JOIN
        pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
    JOIN
        orders_details ON orders_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.category
ORDER BY revenue DESC;
```

Result Grid | Filter

	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(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  
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
	2015-01-07	16560.7
	2015-01-08	19399.05
	2015-01-09	21526.4
	2015-01-10	23990.350000000002
	2015-01-11	25862.65
	2015-01-12	27781.7

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((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.pizza_id=pizzas.pizza_id
GROUP BY pizza_types.category,pizza_types.name) as a)as b
WHERE rn <=3
;
```

Result Grid		Filter Rows:
	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