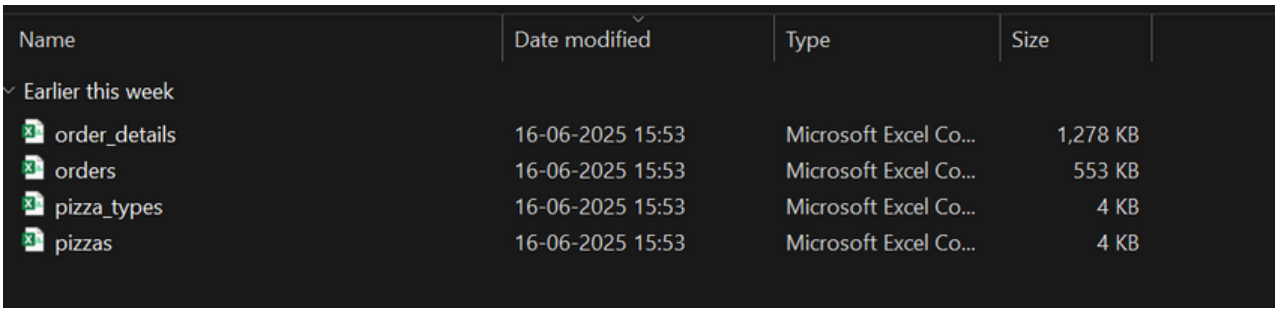
PIZZA SALES SQL PROJECT

END-TO-END ANALYSIS OF PIZZA SALES BY A PIZZA VENDOR USING MYSQL WITH USE OF SUB-QUERIES, CTES AND JOINS ETC.

DATASET



Name	Date modified	Type	Size
Earlier this week			
order_details	16-06-2025 15:53	Microsoft Excel Co...	1,278 KB
orders	16-06-2025 15:53	Microsoft Excel Co...	553 KB
pizza_types	16-06-2025 15:53	Microsoft Excel Co...	4 KB
pizzas	16-06-2025 15:53	Microsoft Excel Co...	4 KB

QUESTIONS

1. Retrieve the total number of orders placed.
2. Calculate the total revenue generated from pizza sales.
3. Identify the highest-priced pizza.
4. Identify the most common pizza size ordered.
5. List the top 5 most ordered pizza types along with their quantities.
6. Join the necessary tables to find the total quantity of each pizza category ordered.
7. Determine the distribution of orders by hour of the day.
8. Join relevant tables to find the category-wise distribution of pizzas.
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.
11. Calculate the percentage contribution of each pizza type to total revenue.
12. Analyze the cumulative revenue generated over time.
13. Determine the top 3 most ordered pizza types based on revenue for each pizza category.

Q1 QUERY

```
25
26      -- Total orders placed
27
28 •    SELECT count(order_id) AS total_orders FROM orders;
29
```

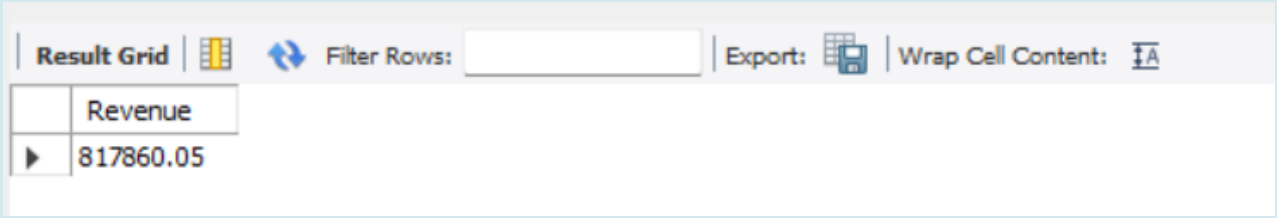
Q1 RESULT

```
25
26      -- Total orders placed
27
28 •    SELECT count(order_id) AS total_orders FROM orders;
29
```

Q2 QUERY

```
30      -- Revenue form pizza sales
31
32  •   SELECT ROUND(SUM(order_details.quantity * pizzas.price), 2) AS Revenue
33      FROM order_details JOIN pizzas
34      ON order_details.pizza_id = pizzas.pizza_id ;
35
```

Q2 RESULT

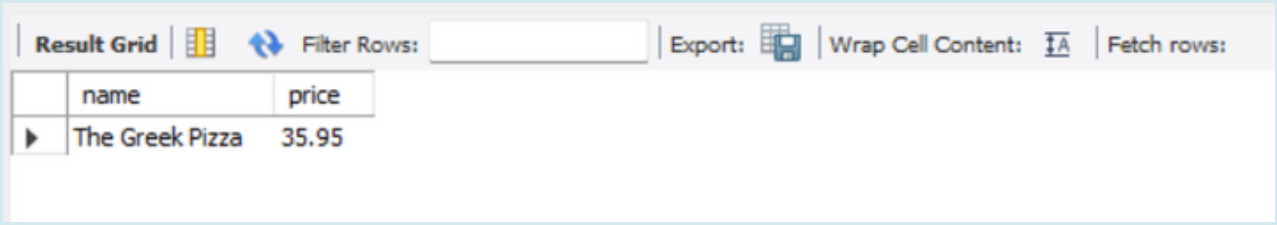


	Revenue
▶	817860.05

Q3 QUERY

```
36      -- Highest priced pizza
37
38  •   SELECT pizza_types.name , pizzas.price
39      FROM pizza_types JOIN pizzas
40      ON pizza_types.pizza_type_id = pizzas.pizza_type_id
41      ORDER BY pizzas.price DESC LIMIT 1;
42
```

Q3 RESULT



name	price
The Greek Pizza	35.95

Q4 QUERY

```
43      -- Most common pizza size
44
45 •    SELECT pizzas.size , COUNT(order_details.order_details_id) AS size_count
46      FROM pizzas JOIN order_details
47      ON pizzas.pizza_id = order_details.pizza_id
48      GROUP BY pizzas.size ORDER BY size_count DESC LIMIT 1;
49
```

Q4 RESULT

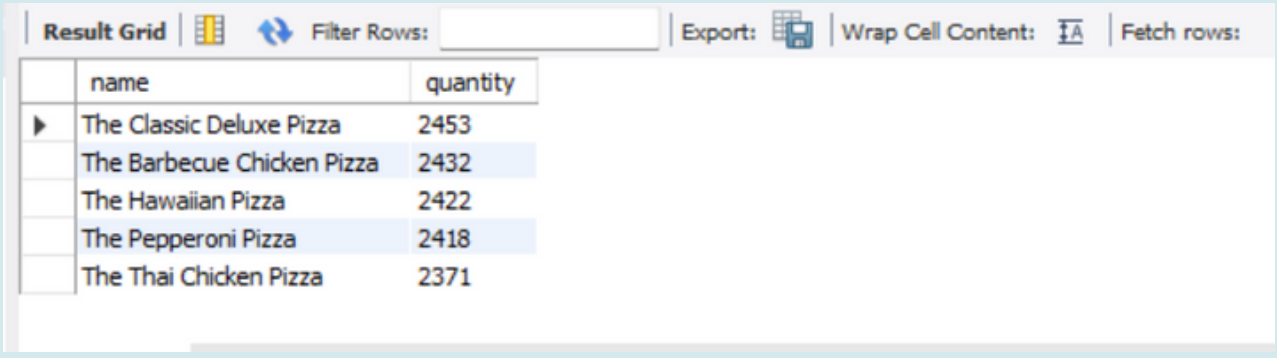
Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

size	size_count
L	18526

Q5 QUERY

```
50      -- 5 most ordered pizza types
51
52 •    SELECT pizza_types.name , SUM(order_details.quantity) AS quantity
53      FROM  pizza_types JOIN pizzas
54      ON pizza_types.pizza_type_id = pizzas.pizza_type_id
55      JOIN order_details
56      ON pizzas.pizza_id = order_details.pizza_id
57      GROUP BY pizza_types.name
58      ORDER BY quantity DESC LIMIT 5;
```

Q5 RESULT



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

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

Q6 QUERY

```
60      -- Total of each pizza category
61
62 •    SELECT pizza_types.category, SUM(order_details.quantity) AS quantity
63      FROM pizza_types JOIN pizzas
64      ON pizza_types.pizza_type_id = pizzas.pizza_type_id
65      JOIN order_details
66      ON pizzas.pizza_id = order_details.pizza_id
67      GROUP BY pizza_types.category ORDER BY quantity DESC;
68
```

Q6 RESULT

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

category	quantity
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

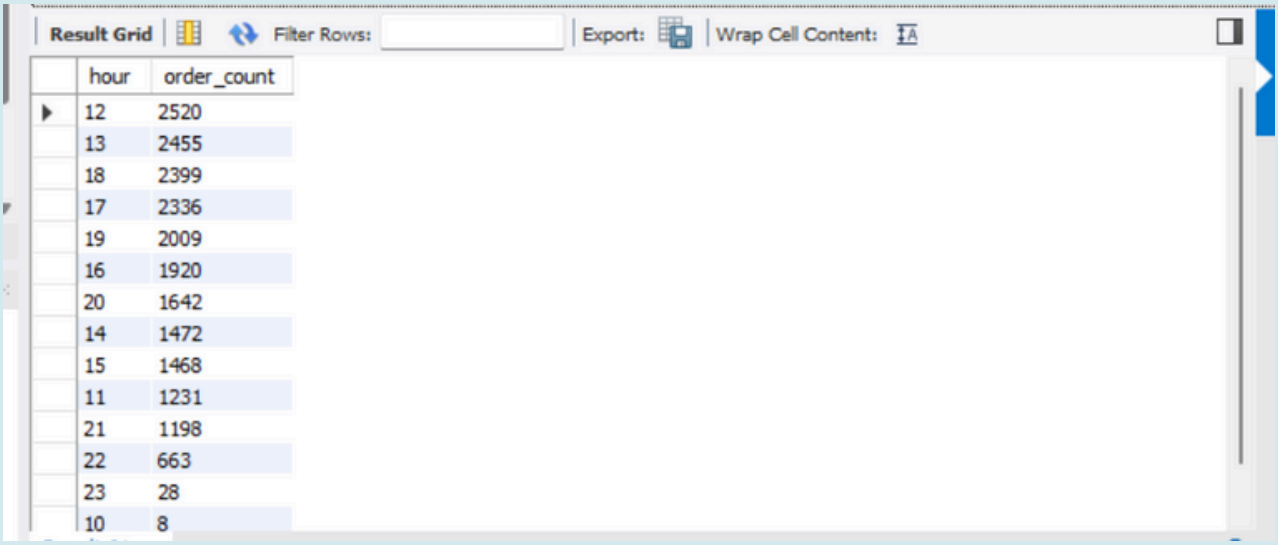
Q7 QUERY

```sql
-- Distribution of orders by hours of the day

SELECT HOUR(order_time) AS hour, COUNT(order_id) AS order_count
FROM orders GROUP BY HOUR(order_time)
ORDER BY COUNT(order_id) DESC;

```

Q7 RESULT

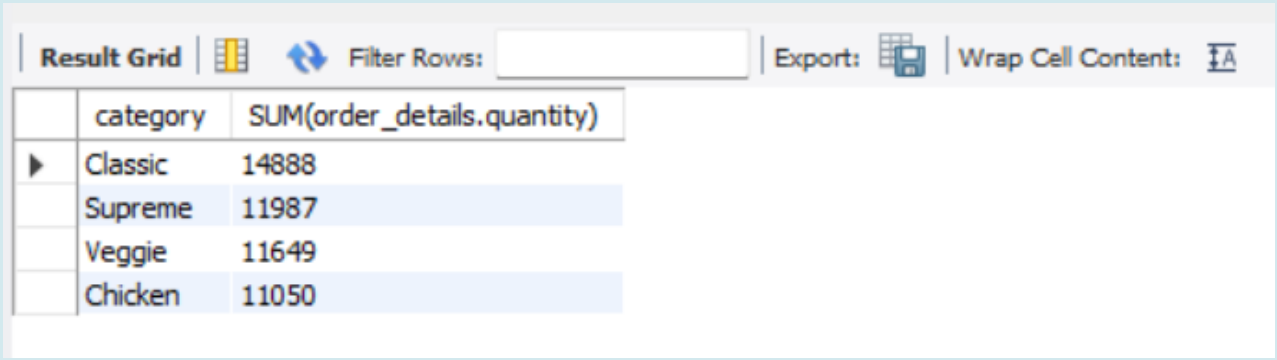


hour	order_count
12	2520
13	2455
18	2399
17	2336
19	2009
16	1920
20	1642
14	1472
15	1468
11	1231
21	1198
22	663
23	28
10	8

Q8 QUERY

```
75      -- Category wise distribution of pizza
76
77  •   SELECT pizza_types.category, SUM(order_details.quantity)
78      FROM pizza_types JOIN pizzas
79      ON pizza_types.pizza_type_id = pizzas.pizza_type_id
80      JOIN order_details
81      ON pizzas.pizza_id = order_details.pizza_id
82      GROUP BY pizza_types.category
83      ORDER BY SUM(order_details.quantity) DESC;
84
```

Q8 RESULT



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

category	SUM(order_details.quantity)
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

Q9 QUERY

```
85      -- Average number of pizzas ordered per day
86
87  •   SELECT ROUND(AVG(total_orders),0) AS avg_orders FROM
88      (SELECT orders.order_date ,SUM(order_details.quantity) AS total_orders
89      FROM orders JOIN order_details
90      ON orders.order_id = order_details.order_id
91      GROUP BY orders.order_date) AS order_quantity;
92
```

Q9 RESULT

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

avg_orders
138

Q10 QUERY

```
93      -- Top 3 ordered pizza based on revenue
94
95  •   SELECT pizza_types.name , SUM(pizzas.price * order_details.quantity) AS revenue
96      FROM pizza_types JOIN pizzas
97      ON pizza_types.pizza_type_id = pizzas.pizza_type_id
98      JOIN order_details
99      ON pizzas.pizza_id = order_details.pizza_id
100     GROUP BY pizza_types.name
101     ORDER BY revenue DESC LIMIT 3;
102
```

Q10 RESULT

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

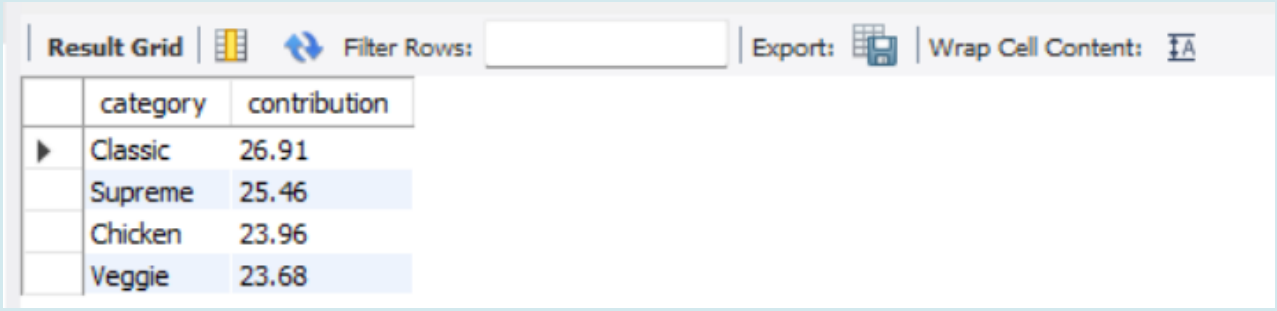
name	revenue
The Thai Chicken Pizza	43434.25
The Barbecue Chicken Pizza	42768
The California Chicken Pizza	41409.5

Q11 QUERY

```sql
-- Percentage contribution of each category to revenue

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

Q11 RESULT



category	contribution
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

Q12 QUERY

```sql
-- Cumulative revenue generated over time

SELECT order_date, ROUND(SUM(revenue)
OVER (ORDER BY order_date),2) AS cumulative_revenue
FROM
(SELECT orders.order_date, ROUND(SUM(pizzas.price * order_details.quantity),2)
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 revenue_table;
```

Q12 RESULT

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

order_date	cumulative_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	29831.3
2015-01-14	32358.7

Result 68

Q13 QUERY

```sql
-- Top 3 pizza types based on revenue for each pizza category

SELECT name, category, revenue
FROM
(SELECT category, name, revenue,
RANK() OVER (PARTITION BY category ORDER BY revenue DESC) AS ranking
FROM
(SELECT pizza_types.category, pizza_types.name,
ROUND(SUM(order_details.quantity * pizzas.price),2) AS revenue
FROM pizza_types JOIN pizzas
ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details
ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizza_types.category, pizza_types.name) AS revenue) AS main
WHERE ranking <= 3;
```

Q13 RESULT

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	category	revenue
The Thai Chicken Pizza	Chicken	43434.25
The Barbecue Chicken Pizza	Chicken	42768
The California Chicken Pizza	Chicken	41409.5
The Classic Deluxe Pizza	Classic	38180.5
The Hawaiian Pizza	Classic	32273.25
The Pepperoni Pizza	Classic	30161.75
The Spicy Italian Pizza	Supreme	34831.25
The Italian Supreme Pizza	Supreme	33476.75
The Sicilian Pizza	Supreme	30940.5
The Four Cheese Pizza	Veggie	32265.7
The Mexicana Pizza	Veggie	26780.75
The Five Cheese Pizza	Veggie	26066.5

Result 69