

Pizza Sales Analysis using MySQL

Data Exploration & Insights from a Pizza Dataset
by
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Project Overview

- Objective: Analyze a pizza sales dataset using SQL to uncover key business insights.
- Tools Used: MySQL, SQL Workbench
- Skills Applied: Data cleaning, joins, aggregations, timebased analysis
- Visual: Icon grid featuring SQL, database, and chart symbols

Database & Tables

- Database Created: `pizza_project`
- Key Tables Used:
- `orders` – Order date and time
- `order_details` – Quantity and pizza IDs per order
- `pizzas` – Price and size
- `pizza_types` – Category and pizza names
- Visual: Schema diagram displaying the four tables and their relationships

Total Orders

- Insight: Total number of orders placed during the period
- SQL Query:






```
select count(distinct order_id) as total_orders from orders;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	total_orders			
▶	21338			

Total Revenue Generated

- Insight: Total revenue calculated from quantity × price
- SQL Query:






```
select round(sum(od.quantity * p.price), 2) as total_revenue  
from order_details od  
join pizzas p on p.pizza_id = od.pizza_id;
```

Result Grid				Filter Rows: <input type="text"/>	Export: 	Wrap Cell Content: 
	total_revenue					
	817860.05					

Highest Priced Pizza

- Insight: Identify the most expensive pizza item
- SQL Query:





`select pizza_id, price from pizzas order by price desc limit 1;`

Result Grid			Filter Rows: <input type="text"/>	Export: 	Wrap Cell Content: 	Fetch rows: 
	pizza_id	price				
▶	the_greek_xxl	35.95				

Most Common Pizza Size

- Insight: Most frequently ordered pizza sizes
- SQL Query:

```
select p.size, count(distinct od.order_id) as no_of_orders,  
sum(od.quantity) as total_qty  
from order_details od join pizzas p on od.pizza_id = p.pizza_id  
group by p.size order by no_of_orders desc;
```

Result Grid   Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 			
	size	No of orders	Total qty ordered
▶	L	12736	18956
	M	11159	15635
	S	10490	14403
	XL	544	552
	XXL	28	28

Top 5 Pizza Types Ordered

- Insight: Identify bestselling pizza varieties
- SQL Query:

```
select pt.name as pizza, sum(od.quantity) as total_ordered from  
order_details od join pizzas p on od.pizza_id = p.pizza_id  
join pizza_types pt on p.pizza_type_id = pt.pizza_type_id  
group by pt.name order by total_ordered desc limit 5;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
	Pizza	Total Ordered				
▶	The Classic Deluxe Pizza	2453				
	The Barbecue Chicken Pizza	2432				
	The Hawaiian Pizza	2422				
	The Pepperoni Pizza	2418				
	The Thai Chicken Pizza	2371				

Orders by Hour

- Insight: Discover peak order times throughout the day

- SQL Query:

```
select extract(hour from time) as  
order_hour, count(*) as  
total_orders  
from orders group by order_hour  
order by total_orders desc;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	order_hour	total_orders			
▶	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			
	9	1			

Category Wise Pizza Quantity

- Insight: Breakdown of pizza consumption by category
- SQL Query:

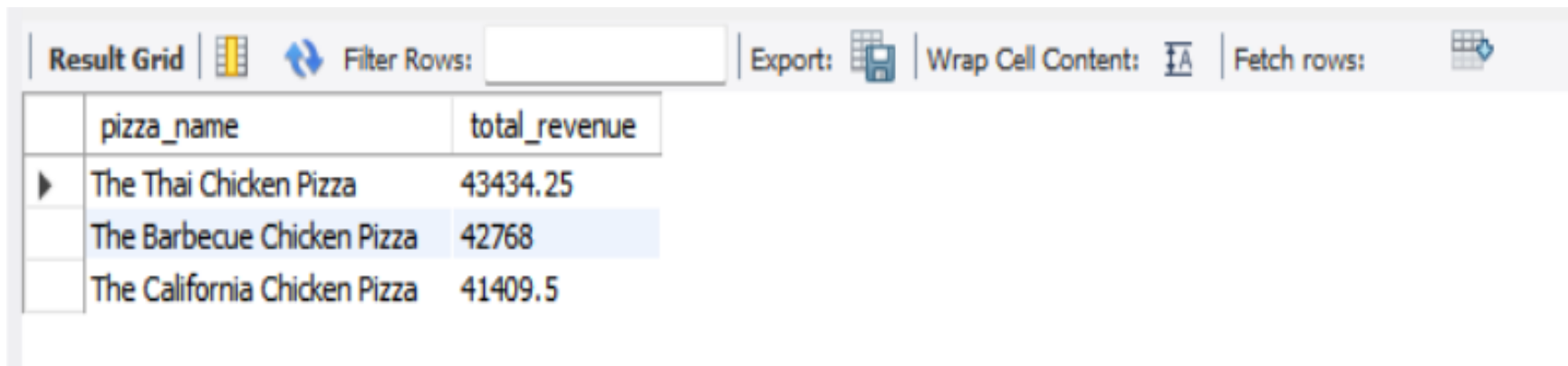
```
select pt.category, sum(od.quantity) as quantity from order_details od
join pizzas p on od.pizza_id = p.pizza_id
join pizza_types pt on p.pizza_type_id = pt.pizza_type_id
group by pt.category order by quantity desc;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	Category	Quantity			
▶	Classic	14888			
	Supreme	11987			
	Veggie	11649			
	Chicken	11050			

Top 3 Pizza Types by Revenue

- Insight: Pizza types generating the most revenue
- SQL Query:

```
select pt.name, sum(od.quantity * p.price) as total_revenue  
from order_details od join pizzas p on od.pizza_id = p.pizza_id  
join pizza_types pt on p.pizza_type_id = pt.pizza_type_id  
group by pt.name order by total_revenue desc limit 3;
```



The screenshot shows a database interface with a 'Result Grid' tab. The grid displays the results of the SQL query, showing the top 3 pizza types by revenue. The columns are 'pizza_name' and 'total_revenue'. The rows are: 'The Thai Chicken Pizza' with a revenue of 43434.25, 'The Barbecue Chicken Pizza' with a revenue of 42768, and 'The California Chicken Pizza' with a revenue of 41409.5. The interface also includes a 'Filter Rows' field, an 'Export' button, a 'Wrap Cell Content' checkbox, and a 'Fetch rows' button.

	pizza_name	total_revenue
▶	The Thai Chicken Pizza	43434.25
	The Barbecue Chicken Pizza	42768
	The California Chicken Pizza	41409.5

Category-wise Distribution of Pizzas

- SQL Query:

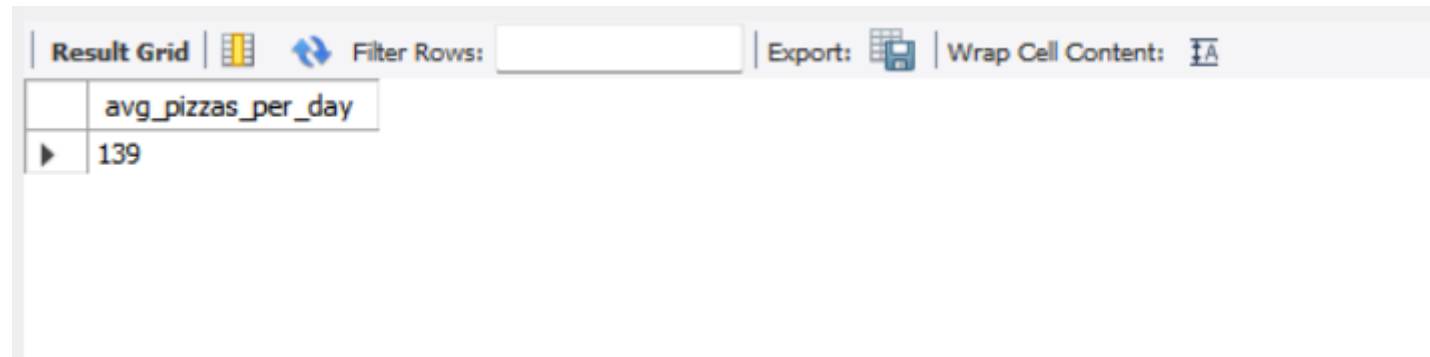
```
select category, count(distinct pizza_type_id) as `no of pizzas`  
from pizza_types  
group by category order by `no of pizzas` desc;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	category	No of pizzas			
▶	Chicken	6			
	Classic	8			
	Supreme	9			
	Veggie	9			

Average Number of Pizzas Ordered Per Day

- SQL Query:

```
select round(avg(daily_total), 0) as avg_pizzas_per_day
from (select o.date, sum(od.quantity) as daily_total
      from orders as o
      join order_details as od on o.order_id = od.order_id
      group by o.date) as daily_pizza_counts;
```



The screenshot shows a database query result grid. The grid has a single column labeled 'avg_pizzas_per_day' and a single row with the value '139'. The interface includes a toolbar with options like 'Result Grid', 'Filter Rows', 'Export', and 'Wrap Cell Content'.

avg_pizzas_per_day
139

Summary & Key Learnings

- Discovered customer preferences and sales trends
- Identified high performing products and peak hours
- Enhanced SQL skills with real-world data analysis

Thank You
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