# Pizza Business Performance Analysis with SQL



# Project Overview

Analyze pizza sales data to understand ordering patterns, customer segmentation and providing a comprehensive understanding of the data. Advanced analysis aims to uncover insights on pizza preferences, revenue contributions, and long-term growth trajectories.



# Functions & Methods Used

Sum ()

Avg()

Round()

Groupby()

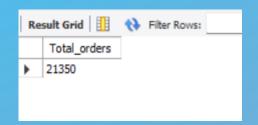
Orderby()

Ranking\_window\_functions()

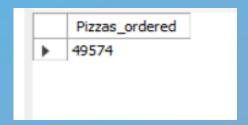
Subquery



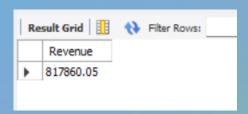
What are the total number of orders placed?



How many total Pizzas sold?

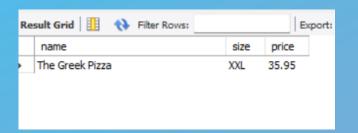


What is the Revenue generated throughout the year?

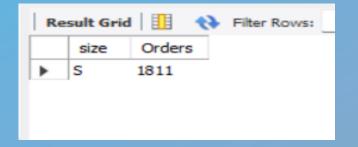




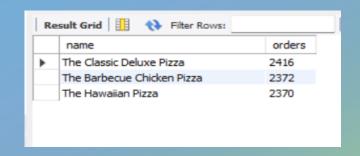
Which is the highest prized pizza?



Most preferred pizza size?



Most popular pizza among the customers?

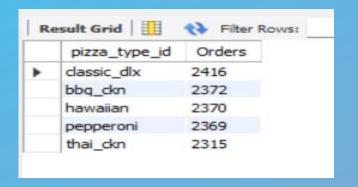




Which pizza types have higher order frequency?

How the orders and sales distributed among the categories ?

Which are the top 5 most expensive pizzaz?



category         orders         Amount           ▶ Classic         14579         220053.1           Supreme         11777         208197	Result Grid				
Supreme 11777 208197		Amount	orders	category	
	_	220053.1	14579	Classic	•
Vennie 11440 102600 45		208197	11777	Supreme	
veggie 11449 193690.45		193690.45	11449	Veggie	
Chicken 10815 195919.5		195919.5	10815	Chicken	

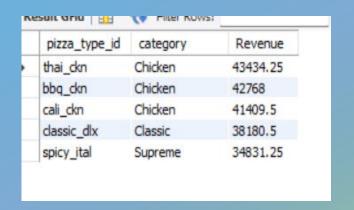
Result Grid				
	name	size	price	
•	The Greek Pizza	XXL	35.95	
	The Greek Pizza	XL	25.5	
	The Brie Carre Pizza	S	23.65	
	The Italian Vegetables Pizza	L	21	
	The Barbecue Chicken Pizza	L	20.75	



Which are the most sold pizzas in every category?

Top 5 revenue generating pizzas ?

category	name	Count	rnk
Chicken	The Barbecue Chicken Pizza	2372	1
Chicken	The Thai Chicken Pizza	2315	2
Chicken	The California Chicken Pizza	2302	3
Classic	The Classic Deluxe Pizza	2416	1
Classic	The Hawaiian Pizza	2370	2
Classic	The Pepperoni Pizza	2369	3
Supreme	The Spicy Italian Pizza	1887	1
Supreme	The Sicilian Pizza	1887	1
Suprem Supr	reme je Italian Supreme Pizza	1849	2
Supreme	The Prosciutto and Arugula Pizza	1428	3
Veggie	The Four Cheese Pizza	1850	1
Veggie	The Vegetables + Vegetables Pizza	1510	2
Veggie	The Mexicana Pizza	1456	3

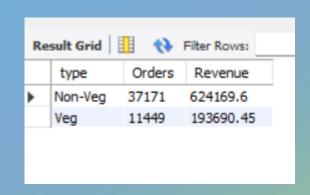




Order peak hours?

Customer segmentation
On Veg & Non-Veg
preference

	Time	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





What is the average ticket size of each type?

Revenue contribution of each type?

	pizza_type_id	Average_price
•	pepperoni	12.5
	hawaiian	13.42
	pep_msh_pep	14.33
	four_cheese	14.82
	five_cheese	15.5
	green_garden	16.08
	mediterraneo	16.08
	mexicana	16.08
	spinach_fet	16.08
	veggie_veg	16.08
	big_meat	16.17
	classic_dlx	16.17
	ital_cpcllo	16.17
	napolitana	16.17

pizza_type_id	revenue_percentage
thai_ckn	5.31%
bbq_dkn	5.23%
cali_ckn	5.06%
classic_dlx	4.67%
spicy_ital	4.26%
southw_ckn	4.24%
ital_supr	4.09%
hawaiian	3.95%
four_cheese	3.95%
sicilian	3.78%
pepperoni	3.69%
the_greek	3.48%
mexicana	3.27%
five cheese	3.19%



Monthly sales and order analysis?

Which days have the highest order count

	MONTH	orders	qty_ordered	Revenue
•	January	4156	4232	69793.3
	February	3892	3961	65164.3
	March	4186	4261	70397.1
	April	4067	4151	68736.8
	May	4239	4328	71402.75
	June	4025	4107	68230.2
	July	4311	4403	72733.85
	August	4094	4168	68278.25
	September	3819	3890	64180.05
	October	3797	3883	64027.6
	November	4185	4266	70395.35
	December	3862	3938	64734.3

Re	esult Grid	Filter Rows:
	Day	Pizza_ordered
•	2023-11-26	266
	2023-11-27	264
	2023-10-15	262
	2023-07-04	234
	2023-07-03	213
	2023-05-15	208
	2023-07-24	196
	2023-10-01	194
	2022 02 04	101



# **Insights**

- In the past year, a total of 21.3k orders were placed, with 49.5k pizzas sold.
  This indicates an average of more than 2 pizzas per order.
- Small-sized pizzas are the most frequently ordered, with over 1,800 orders, highlighting a strong preference for this size among customers.
- The menu features 32 unique pizzas, offering a wide variety to customers. The prices of these pizzas range from \$9 to \$35, catering to different budget preferences.
- The top three most popular pizzas are the Classic Deluxe Pizza, Barbecue Chicken Pizza, and Hawaiian Pizza.
- Specifically, the Classic Deluxe Pizza leads in popularity with 2,416 orders, while the Brie Carré pizza has the lowest, with 480 orders.



# **Insights**

- Pizzas in the classic category contribute the highest to the overall revenue, accounting for 26.45% of total sales.
- The peak times for pizza orders are during the afternoon (12 PM 1 PM) and evening (6 PM 7 PM), suggesting these are the preferred times for customers to enjoy pizza. Conversely, the morning time slot of 9 AM 10 AM sees the least number of orders.
- A monthly analysis reveals overall growth in sales, though the growth rate remains relatively low.
- Approximately 75% of pizza sales are for non-vegetarian options, with the remaining 25% for vegetarian pizzas, indicating a strong preference for nonvegetarian pizzas among the customer base.



## **Recommendations**

# With small-sized pizzas being the most frequently ordered, introducing special offers, discounts, or meal deals centered around small pizzas could attract even more customers.

# Ensure there are appealing options in both the lower and higher price ranges to cater to all customer segments.

# Capitalize on peak ordering times (12 PM - 1 PM & 6 PM - 7 PM) by offering time-limited discounts or happy hour deals to further boost sales during these periods.

# Although non-vegetarian pizzas dominate sales (75%), t is an opportunity to grow the vegetarian segment. Prorto vegetarian pizzas more actively through marketing

#### Conclusion

Our analysis of the past year's pizza sales has provided valuable insights into customer preferences and purchasing patterns. The data shows a strong demand for small-sized pizzas, peak ordering times etc. By leveraging these insights, we can refine our strategies to enhance customer satisfaction, increase sales, and drive sustained growth for our business.

