PIZZA SALES ANALYSIS

USING MY SQL

ABOUT THE ANALYST

PRABH

SKILLS : SQL| POWERBI| ADVANCE EXCEL| PYTHON| GOOGLE SHEET| PANDAS| MATPLOTLIB

SKILLED IN EXTRACTING ACTIONABLE INSIGHTS FROM COMPLEX DATASETS TO SUPPORT BUSINESS GROWTH.

PROJECT OVERVIEW

GOALS:

- Database creation & table design
- Filtering, pattern matching & operators
- Joins (inner, left, right, full, self)
- Aggregations & data summaries
- Data cleaning & NULL handling

LIST ALL THE UNIQUE PIZZA CATEGORY

SELECT DISTINCT CATEGORY FROM PIZZA_TYPES;

category
Chicken
Classic
Supreme
Veggie

DISPLAY PIZZA TYPE ID, NAME AND INGREDIENTS, REPLACING NULL INGREDIENTS WITH “MISSING DATA”. SHOW FIRST 5

```
SELECT PIZZA_TYPE_ID, NAME, COALESCE(INGREDIENTS, 'MISSING DATA') AS INGREDIENTS FROM PIZZA_TYPES LIMIT 5;
```

bbq_ckn	The Barbecue Chicken Pizza	Barbecued Chicken, Red Peppers, Green Peppe...
big_meat	The Big Meat Pizza	Bacon, Pepperoni, Italian Sausage, Chorizo Sau...
brie_carre	The Brie Carre Pizza	Brie Carre Cheese, Prosciutto, Caramelized Oni...
calabrese	The Calabrese Pizza	'Nduja Salami, Pancetta, Tomatoes, Red Onions...
cali_ckn	The California Chicken Pizza	Chicken, Artichoke, Spinach, Garlic, Jalapeno P...

CHECK FOR PIZZA MISSING A PRICE (IS NULL)

SELECT * FROM PIZZAS WHERE PRICE IS NULL;

	pizza_id	pizza_type_id	size	price
	NULL	NULL	NULL	NULL

ORDER PLACED ON ‘2015-01-01’ (SELECT + WHERE)

```
SELECT * FROM ORDERS  WHERE `DATE` = '2015-01-01';
```

	order_id	date	time
▶	1	2015-01-01	11:38:36
	2	2015-01-01	11:57:40
	3	2015-01-01	12:12:28
	4	2015-01-01	12:16:31
	5	2015-01-01	12:21:30
	6	2015-01-01	12:29:36
	7	2015-01-01	12:50:37

LIST PIZZA WITH PRICE DESCENDING

```
SELECT pt.name, p.price FROM pizzas AS p
JOIN pizza_types AS pt ON p.pizza_type_id =
pt.pizza_type_id ORDER BY p.price DESC;
```

	name	price
▶	The Greek Pizza	35.95
	The Greek Pizza	25.50
	The Brie Carre Pizza	23.65
	The Italian Vegetables Pizza	21.00
	The Barbecue Chicken Pizza	20.75
	The Soppressata Pizza	20.75
	The Southwest Chicken Pizza	20.75

PIZZAS SOLD IN SIZES 'L' OR 'XL'

SELECT PT.NAME, P.SIZE FROM PIZZAS AS P JOIN PIZZA_TYPES AS PT ON P.PIZZA_TYPE_ID = PT.PIZZA_TYPE_ID WHERE P.SIZE IN ('L', 'XL');

	name	size
▶	The Barbecue Chicken Pizza	L
	The Big Meat Pizza	L
	The Calabrese Pizza	L
	The California Chicken Pizza	L
	The Chicken Alfredo Pizza	L
	The Chicken Pesto Pizza	L
	The Classic Deluxe Pizza	L
	The Five Cheese Pizza	L

ORDERS ON '2015-02-15' OR PLACED AFTER 8 PM

```
SELECT * FROM ORDERS AS O  JOIN ORDER_DETAILS AS OD ON O.ORDER_ID =
OD.ORDER_ID WHERE O.`DATE` = '2015-02-15'    OR O.`TIME` > '20:00:00'ORDER BY
O.`TIME` ASC;
```

order_id	date	time	order_details_id	order_id	pizza_id	quantity
2723	2015-02-15	11:35:24	6149	2723	pepperoni_l	1
2724	2015-02-15	11:48:59	6150	2724	cali_ckn_s	1
2724	2015-02-15	11:48:59	6151	2724	classic_dlx_m	1
2724	2015-02-15	11:48:59	6152	2724	veggie_veg_l	1
2725	2015-02-15	11:52:00	6153	2725	bbq_ckn_l	1
2725	2015-02-15	11:52:00	6154	2725	calabrese_m	1
2725	2015-02-15	11:52:00	6155	2725	ckn_alfredo_s	1
2725	2015-02-15	11:52:00	6156	2725	hawaiian_l	1

TOTAL QUANTITY OF PIZZAS SOLD(SUM)

```
SELECT SUM(QUANTITY) AS PIZZA_QUANTITY FROM ORDER_DETAILS;
```

Result Grid

	pizza_quantity
▶	49574

AVERAGE PIZZA PRICE (AVG)

```
SELECT ROUND(AVG(PRICE),2)AS AVG_PRICE FROM PIZZAS;
```

	avg_price
▶	16.44

TOTAL ORDER VALUE PER ORDER (JOIN,SUM,GROUP BY)

```
SELECT O.ORDER_ID, SUM(P.PRICE*
OD.QUANTITY) AS TOTAL_VALUE FROM ORDERS
AS O JOIN ORDER_DETAILS AS OD ON
O.ORDER_ID = OD.ORDER_ID JOIN PIZZAS AS P
ON OD.PIZZA_ID = P.PIZZA_ID GROUP BY
O.ORDER_ID
```

	order_id	total_value
▶	1	13.25
	2	92.00
	3	37.25
	4	16.50
	5	16.50
	6	24.75
	7	12.50
	8	12.50
	9	143.25
	10	41.00

TOTAL QUANTITY SOLD PER PIZZA CATEGORY(JOIN, GROUP BY

```
SELECT PT.CATEGORY, SUM(OD.QUANTITY) AS TOTAL_QUANTITY FROM PIZZA_TYPES AS PT JOIN PIZZAS AS P ON PT.PIZZA_TYPE_ID = P.PIZZA_TYPE_ID JOIN ORDER_DETAILS AS OD ON P.PIZZA_ID = OD.PIZZA_ID GROUP BY PT.CATEGORY;
```

	category	total_quantity
▶	Chicken	11050
	Classic	14888
	Supreme	11987
	Veggie	11649

PIZZAS NEVER ORDERED (LEFT/RIGHT JOIN)

```
SELECT * FROM PIZZAS AS P LEFT JOIN PIZZA_TYPES AS PT ON P.PIZZA_TYPE_ID = PT.PIZZA_TYPE_ID LEFT
JOIN ORDER_DETAILS AS OD ON P.PIZZA_ID = OD.PIZZA_ID WHERE OD.ORDER_ID IS NULL;
```

pizza_id	pizza_type_id	size	price	pizza_type_id	name	category	ingredients	order_details_id	order_id	pizza_id	quantity
big_meat_l	big_meat	L	20.50	big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian Sausage, Chorizo Sau...	NULL	NULL	NULL	NULL
big_meat_m	big_meat	M	16.00	big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian Sausage, Chorizo Sau...	NULL	NULL	NULL	NULL
five_cheese_m	five_cheese	M	15.50	five_cheese	The Five Cheese Pizza	Veggie	Mozzarella Cheese, Provolone Cheese, Smoked ...	NULL	NULL	NULL	NULL
five_cheese_s	five_cheese	S	12.50	five_cheese	The Five Cheese Pizza	Veggie	Mozzarella Cheese, Provolone Cheese, Smoked ...	NULL	NULL	NULL	NULL
four_cheese_s	four_cheese	S	11.75	four_cheese	The Four Cheese Pizza	Veggie	Ricotta Cheese, Gorgonzola Piccante Cheese, ...	NULL	NULL	NULL	NULL

WHICH PIZZA CATEGORY GENRATES THE HIGHEST TOTAL REVENUE?

- SELECT PT.CATEGORY, SUM(P.PRICE* OD.QUANTITY) AS TOTAL_REVENUE FROM ORDER_DETAILS AS OD JOIN PIZZAS AS P ON OD.PIZZA_ID = P.PIZZA_ID JOIN PIZZA_TYPES AS PT ON P.PIZZA_TYPE_ID = PT.PIZZA_TYPE_ID GROUP BY PT.CATEGORY ORDER BY TOTAL_REVENUE DESC LIMIT 1;

	category	total_revenue
▶	Classic	220053.10

WHAT ARE THE TOP 5 BEST-SELLING PIZZA TYPE BY TOTAL QUANTITY SOLD?

```
SELECT PT.NAME, SUM(OD.QUANTITY) AS TOTAL_SOLD FROM ORDER_DETAILS AS OD JOIN PIZZAS AS P ON OD.PIZZA_ID = P.PIZZA_ID JOIN PIZZA_TYPES AS PT ON P.PIZZA_TYPE_ID = PT.PIZZA_TYPE_ID GROUP BY PT.NAME ORDER BY TOTAL_SOLD DESC LIMIT 5;
```

name	total_sold
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

WHICH DAY OF THE WEEK HAS THE HIGHEST TOTAL REVENUE

```
SELECT DAYNAME(O.DATE) AS DAY_OF_WEEK, SUM(P.PRICE* OD.QUANTITY) AS
TOTAL_REVENUE FROM ORDERS O JOIN ORDER_DETAILS OD ON O.ORDER_ID = OD.ORDER_ID
JOIN PIZZAS P ON OD.PIZZA_ID = P.PIZZA_ID GROUP BY DAY_OF_WEEK ORDER BY
TOTAL_REVENUE DESC;
```

	day_of_week	total_revenue
▶	Friday	136073.90
	Thursday	123528.50
	Saturday	123182.40
	Wednesday	114408.40
	Tuesday	114133.80
	Monday	107329.55
	Sunday	99203.50

COLLECTIVE INSIGHTS

1. Pizza sold over 49,000+ pizzas, showing strong demand across categories.
2. Classic & Chicken categories contribute the highest order volumes and revenue
3. Large (L) and Extra Large (XL) sizes are the most frequently ordered across the dataset.
4. Peak order activity occurs around 6 PM-9 PM, indicating strong dinner-time demand
5. Top-selling pizzas belong to the Classic & Supreme categories.
6. Several pizzas showed NULL or missing data, highlighting the need for data validation.
7. A few pizzas were never ordered, indicating either low visibility or low customer interest
8. Most revenue is generated from mid-priced pizzas ($15-$20 range).
9. Ingredients analysis shows cheese-based and chicken-based pizzas dominate preferences.
10. Day-wise sales reveal weekends outperform weekdays, especially Saturdays
11. Monthly trends show January and February as high-performing sales months.
12. High-value orders often include multiple large pizzas, boosting overall revenue.

Thank you!

PRESENTED BY PRABH