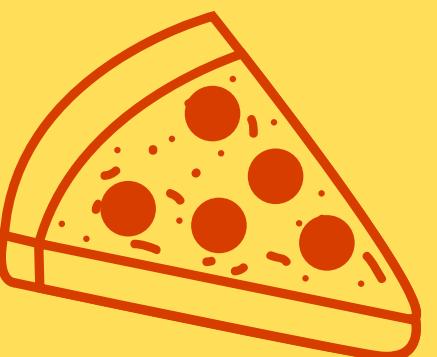
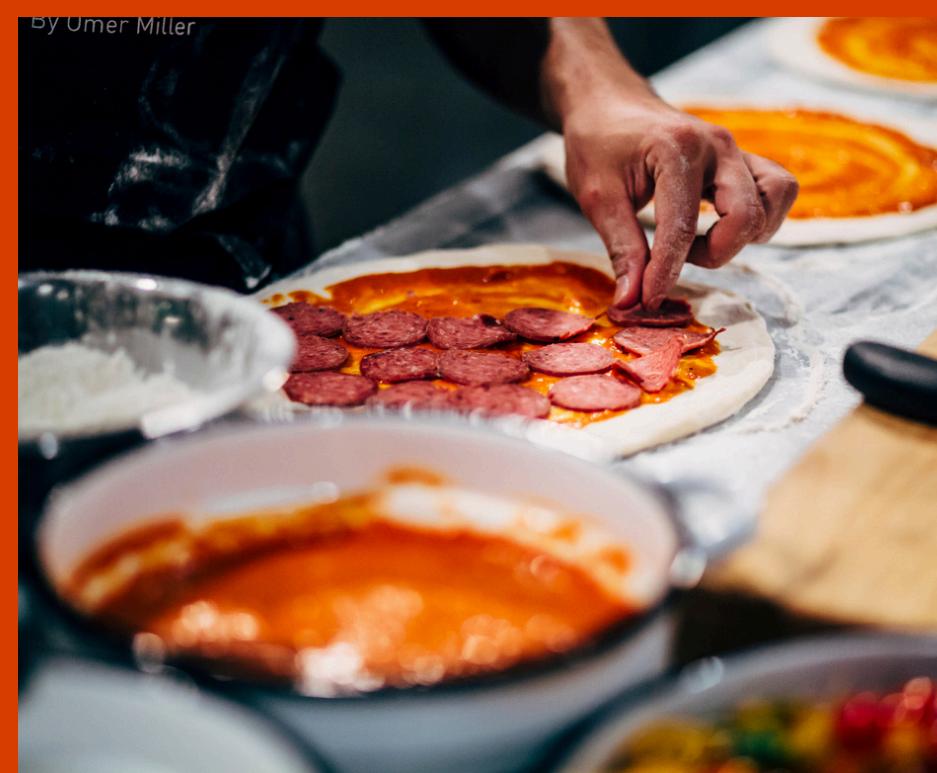


SQL PROJECT ON THE DATA OF A PIZZA STORE

by Soumyadip Dhara





ABOUT ME

HI !!!

Myself Soumyadip Dhara, a passionate data enthusiast and SQL aficionado, embarks on a journey to showcase the power of SQL in transforming data of Pizzahub(A Pizza Store) into actionable insights with a keen eye for detail and a knack for problem-solving...

orders		
order_id	date	time
1	1/1/2015	11:38:36
2	1/1/2015	11:57:40
3	1/1/2015	12:12:28
4	1/1/2015	12:16:31
5	1/1/2015	12:21:30
6	1/1/2015	12:29:36
7	1/1/2015	12:50:37
8	1/1/2015	12:51:37
9	1/1/2015	12:52:01
10	1/1/2015	13:00:15

orders_details			
order_details_id	order_id	pizza_id	quantity
1		1 hawaiian_m	1
2		2 classic_dlx_m	1
3		2 five_cheese_l	1
4		2 ital_supr_l	1
5		2 mexicana_m	1
6		2 thai_ckn_l	1
7		3 ital_supr_m	1
8		3 prsc_argla_l	1
9		4 ital_supr_m	1
10		5 ital_supr_m	1
11		6 bbq_ckn_s	1
12		6 the_greek_s	1
13		7 spinach_supr_s	1
14		8 spinach_supr_s	1
15		9 classic_dlx_s	1
16		9 green_garden_s	1

PIZZAS			
pizza_id	pizza_type_id	size	price
bbq_ckn_s	bbq_ckn	S	12.75
bbq_ckn_m	bbq_ckn	M	16.75
bbq_ckn_l	bbq_ckn	L	20.75
cali_ckn_s	cali_ckn	S	12.75
cali_ckn_m	cali_ckn	M	16.75
cali_ckn_l	cali_ckn	L	20.75
ckn_alfredo_s	ckn_alfredo	S	12.75
ckn_alfredo_m	ckn_alfredo	M	16.75
ckn_alfredo_l	ckn_alfredo	L	20.75
ckn_pesto_s	ckn_pesto	S	12.75
ckn_pesto_m	ckn_pesto	M	16.75
ckn_pesto_l	ckn_pesto	L	20.75
southw_ckn_s	southw_ckn	S	12.75

BRIEF ABOUT DATABASE

HERE ARE THE SCHEMAS OF THE ALL 4 DATASETS -- ORDERS, PIZZAS, PIZZA_TYPES, ORDERS_DETAILS

PIZZA_TYPES			
pizza_type_id	name	category	ingredients
bbq_ckn	The Barbecue Chicken Pizza	Chicken	Barbecued Chicken, Red Peppers, Green Peppers, Tomatoes, Red Onions, Barbecue Sauce
cali_ckn	The California Chicken Pizza	Chicken	Chicken, Artichoke, Spinach, Garlic, Jalapeno Peppers, Fontina Cheese, Gouda Cheese
ckn_alfredo	The Chicken Alfredo Pizza	Chicken	Chicken, Red Onions, Red Peppers, Mushrooms, Asiago Cheese, Alfredo Sauce
ckn_pesto	The Chicken Pesto Pizza	Chicken	Chicken, Tomatoes, Red Peppers, Spinach, Garlic, Pesto Sauce
southw_ckn	The Southwest Chicken Pizza	Chicken	Chicken, Tomatoes, Red Peppers, Red Onions, Jalapeno Peppers, Corn, Cilantro, Chipotle Sauce
thai_ckn	The Thai Chicken Pizza	Chicken	Chicken, Pineapple, Tomatoes, Red Peppers, Thai Sweet Chilli Sauce
big_meat	The Big Meat Pizza	Classic	Bacon, Pepperoni, Italian Sausage, Chorizo Sausage
classic_dlx	The Classic Deluxe Pizza	Classic	Pepperoni, Mushrooms, Red Onions, Red Peppers, Bacon
hawaiian	The Hawaiian Pizza	Classic	Sliced Ham, Pineapple, Mozzarella Cheese
ital_cpcillo	The Italian Capocollo Pizza	Classic	Capocollo, Red Peppers, Tomatoes, Goat Cheese, Garlic, Oregano
napolitana	The Napolitana Pizza	Classic	Tomatoes, Anchovies, Green Olives, Red Onions, Garlic
pep_msh_pep	The Pepperoni, Mushroom Pizza	Classic	Pepperoni, Mushrooms, Green Peppers
pepperoni	The Pepperoni Pizza	Classic	Mozzarella Cheese, Pepperoni
the_greek	The Greek Pizza	Classic	Kalamata Olives, Feta Cheese, Tomatoes, Garlic, Beef Chuck Roast, Red Onions
brie_carre	The Brie Carre Pizza	Supreme	Brie Carre Cheese, Prosciutto, Caramelized Onions, Pears, Thyme, Garlic
calabrese	The Calabrese Pizza	Supreme	'Nduja Salami, Pancetta, Tomatoes, Red Onions, Friggitello Peppers, Garlic
ital_supr	The Italian Supreme Pizza	Supreme	Calabrese Salami, Capocollo, Tomatoes, Red Onions, Green Olives, Garlic
pepp_salami	The Pepper Salami Pizza	Supreme	Genoa Salami, Capocollo, Pepperoni, Tomatoes, Asiago Cheese, Garlic
prsc_argla	The Prosciutto and Arugula Pizza	Supreme	Prosciutto di San Daniele, Arugula, Mozzarella Cheese
sicilian	The Sicilian Pizza	Supreme	Coarse Sicilian Salami, Tomatoes, Green Olives, Lunganega Sausage, Onions, Garlic
soppressata	The Soppressata Pizza	Supreme	Soppressata Salami, Fontina Cheese, Mozzarella Cheese, Mushrooms, Garlic
spicy_ital	The Spicy Italian Pizza	Supreme	Capocollo, Tomatoes, Goat Cheese, Artichokes, Peperoncini verdi, Garlic
spinach_supr	The Spinach Supreme Pizza	Supreme	Spinach, Red Onions, Pepperoni, Tomatoes, Artichokes, Kalamata Olives, Garlic, Asiago Cheese
five_cheese	The Five Cheese Pizza	Veggie	Mozzarella Cheese, Provolone Cheese, Smoked Gouda Cheese, Romano Cheese, Blue Cheese, Garlic
four_cheese	The Four Cheese Pizza	Veggie	Ricotta Cheese, Gorgonzola Piccante Cheese, Mozzarella Cheese, Parmigiano Reggiano Cheese, Garlic
green_garden	The Green Garden Pizza	Veggie	Spinach, Mushrooms, Tomatoes, Green Olives, Feta Cheese

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED

```
1  --- Retrieve the total number of orders placed.  
2  
3 • SELECT  
4      COUNT(order_id) AS total_number_of_orders_placed  
5 FROM  
6     orders;
```

Result Grid | Filter Rows:

	total_number_of_orders_placed
▶	21350

CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES

```
1  --- Calculate the total revenue generated from pizza sales
2
3 •   SELECT
4      ROUND(SUM(pizzas.price * orders_details.quantity),
5                  2) AS total_revenue
6
7   FROM
8
9   pizzas
10
11  JOIN
12
13  orders_details ON pizzas.pizza_id = orders_details.pizza_id;
```

Result Grid	
	total_revenue
▶	817860.05

IDENTIFY THE HIGHEST-PRICED PIZZA

```
1      -- Identify the highest-priced pizza.  
2  
3 •  SELECT  
4      pizza_types.name, pizzas.price  
5  FROM  
6      pizza_types  
7      JOIN  
8      pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id  
9  ORDER BY pizzas.price DESC  
10     LIMIT 1;
```

Result Grid | Filter Results

	name	price
▶	The Greek Pizza	35.95

IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED

```
1      -- Identify the most common pizza size ordered.  
2  
3 •  SELECT  
4      pizzas.size,  
5      COUNT(orders_details.order_details_id) AS order_count  
6  FROM  
7      pizzas  
8      JOIN  
9      orders_details ON pizzas.pizza_id = orders_details.pizza_id  
10     GROUP BY pizzas.size  
11     ORDER BY order_count DESC  
12     LIMIT 1;
```

Result Grid |

	size	order_count
▶	L	18526

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

```
1      -- List the top 5 most ordered pizza types along with their quantities.  
2  
3 •  SELECT  
4      pizza_types.name,  
5      SUM(orders_details.quantity) AS total_quantity  
6  FROM  
7      pizza_types  
8      JOIN  
9      pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id  
10     JOIN  
11     orders_details ON orders_details.pizza_id = pizzas.pizza_id  
12     GROUP BY pizza_types.name  
13     ORDER BY total_quantity DESC  
14     LIMIT 5;
```

Result Grid | Filter Rows: _____

	name	total_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

```
1      -- Join the necessary tables to find the total quantity of each pizza category ordered.  
2  
3      SELECT  
4          pizza_types.category,  
5              SUM(orders_details.quantity) AS total_quantity_of_each_category  
6      FROM  
7          orders_details  
8              JOIN  
9          pizzas ON orders_details.pizza_id = pizzas.pizza_id  
10             JOIN  
11         pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id  
12     GROUP BY category  
13     ORDER BY total_quantity_of_each_category DESC;
```

Result Grid	
category	total_quantity_of_each_category
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

```
1  -- Determine the distribution of orders by hour of the day.  
2  
3  SELECT  
4      HOUR(order_time) AS hour, COUNT(order_id) AS order_count  
5  FROM  
6      orders  
7  GROUP BY HOUR(order_time);
```

	hour	order_count
▶	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 PIZZAS

```
1 --- Join relevant tables to find the category-wise distribution of pizzas.  
2  
3 • SELECT  
4     category, COUNT(name)  
5 FROM  
6 pizza_types  
7 GROUP BY category;
```

Result Grid | Filter Row

	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

```
1  -- Group the orders by date and calculate the average number of pizzas ordered per day.  
2  
3  SELECT  
4      ROUND(AVG(quantity), 0) as average_quantity_per_day  
5  FROM  
6  (SELECT  
7      orders.order_date, SUM(orders_details.quantity) AS quantity  
8  FROM  
9      orders  
10     JOIN orders_details ON orders.order_id = orders_details.order_id  
11     GROUP BY orders.order_date) AS order_quantity;
```

Result Grid	
	average_quantity_per_day
▶	138

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE

```
1  -- Determine the top 3 most ordered pizza types based on revenue.  
2  
3  SELECT  
4      pizza_types.name,  
5      SUM(pizzas.price * orders_details.quantity) AS revenue  
6  FROM  
7      orders_details  
8      JOIN  
9      pizzas ON orders_details.pizza_id = pizzas.pizza_id  
10     JOIN  
11     pizza_types ON pizzas.pizza_type_id = pizza_types.pizza_type_id  
12     GROUP BY pizza_types.name  
13     ORDER BY revenue DESC  
14     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

```
1  -- Calculate the percentage contribution of each pizza type to total revenue.
2 • SELECT
3   pizza_types.category,
4   ROUND(((SUM(orders_details.quantity * pizzas.price) / (SELECT
5     ROUND(SUM(pizzas.price * orders_details.quantity),
6     2) AS total_revenue
7
8   FROM
9     pizzas
10    JOIN
11      orders_details ON pizzas.pizza_id = orders_details.pizza_id)) * 100),
12  2) AS revenue_percentage
13
14  FROM
15    pizza_types
16    JOIN
17      pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
18    JOIN
19      orders_details ON orders_details.pizza_id = pizzas.pizza_id
20
21  GROUP BY pizza_types.category
22
23  ORDER BY revenue_percentage;
```

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

ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME

```
1  -- Analyze the cumulative revenue generated over time.  
2  
3  
4 • select order_date, round(sum(revenue) over(order by order_date),2) as cumulative_revenue  
5   from  
6     (select orders.order_date, sum(orders_details.quantity * pizzas.price) as revenue  
7      from orders_details join pizzas  
8        on orders_details.pizza_id = pizzas.pizza_id  
9      join orders  
10        on orders.order_id = orders_details.order_id  
11      group by orders.order_date) as sales;
```

Result Grid		Filter Rows:
	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

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY

```
1 -- Determine the top 3 most ordered pizza types based on revenue for each pizza category.  
2  
3 • select category, name, round(revenue,2) as revenue from  
4   (select category, name, revenue, rank() over(partition by category order by revenue desc) as rn  
5   from  
6   (select pizza_types.category, pizza_types.name, sum(orders_details.quantity * pizzas.price) as revenue  
7   from pizza_types join pizzas  
8   on pizza_types.pizza_type_id = pizzas.pizza_type_id  
9   join orders_details  
10  on orders_details.pizza_id = pizzas.pizza_id  
11  group by pizza_types.category, pizza_types.name) as revenue_data)as a  
12  where rn <=3;
```

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

EXTRACTED INSIGHTS

1. The Classic Deluxe Pizza is the most ordered pizza, so if possible make some combo with it to increase the sales of other items also.
2. The Thai Chicken Pizza generates largest part of the revenue, so push it to more customers.
3. The most number of orders are made in between 12:00 noon and 8:00 in the evening. So May be the owner can keep 08:00pm to 11:00am ‘HAPPY HOURS DISCOUNT’ to attract more orders in the low time of the day.



THANK YOU

CONTACT

Ph. No. : 7044264385

email : soumyadipdhara23@gmail.com

Linked in :

<https://www.linkedin.com/in/soumyadip-dhara-120428225/>

GitHub repositories link :

<https://github.com/Soumyadip-Dhara?tab=repositories>