SQL PROJECT ON PIZZA SALES

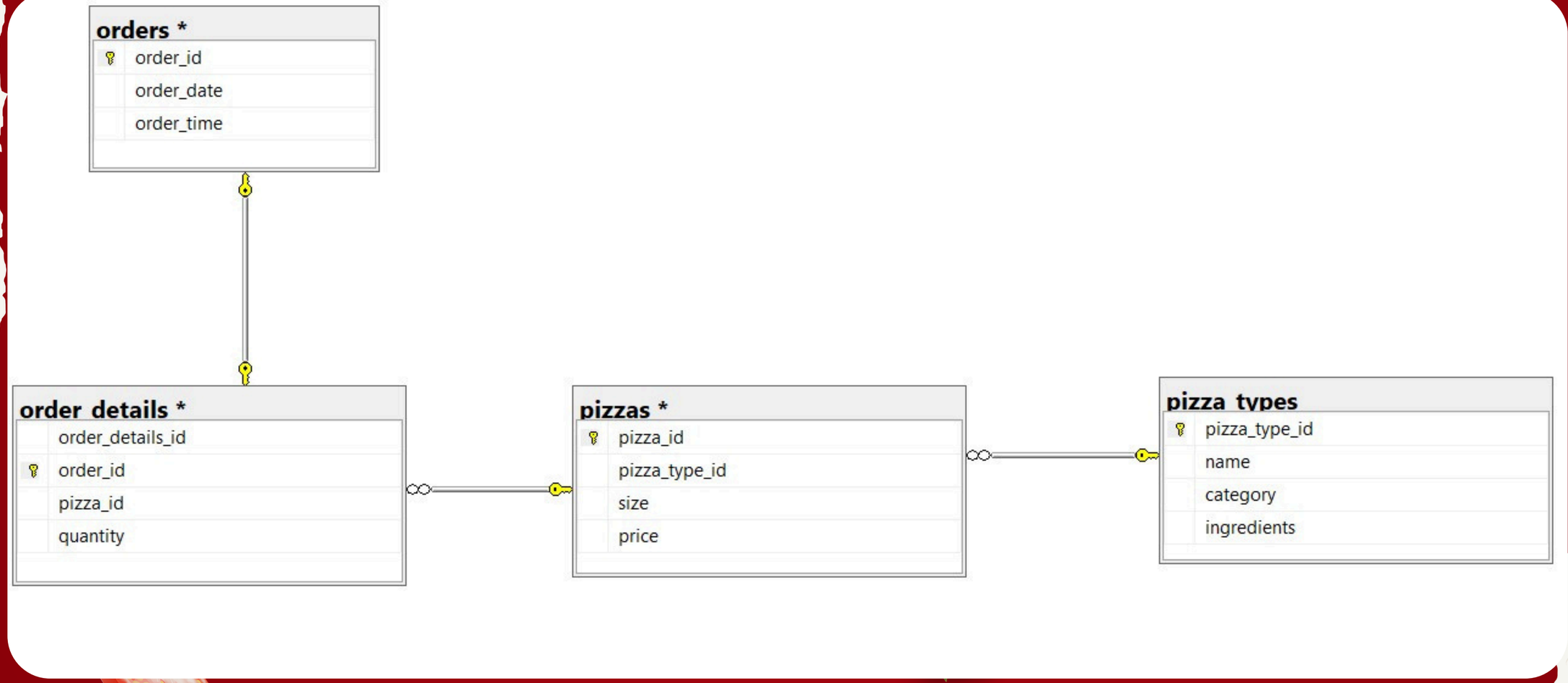
LARANA PIZZA

HELLO!

My name is Piyush. In this project I have utilised SQL queries to solve questions that were related to Pizza sales.

This Pizza Sales Analysis project demonstrates proficiency in using SQL and to analyze and visualize data effectively, to uncover actionable insights into sales trends and product performance for a pizza restaurant.

ERD DIAGRAM


orders *
order_id
order_date
order_time
order_details *
order_details_id
order_id
pizza_id
quantity
pizzas *
pizza_id
pizza_type_id
size
price
pizza_types
pizza_type_id
name
category
ingredients

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED

```sql
SELECT COUNT(o.order_id) AS total_orders_placed
FROM orders o;
```

Results | Messages

	total_orders_placed
1	21350

CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES

```sql
SELECT ROUND(SUM(od.quantity * p.price),2) AS total_revenue
FROM order_details od INNER JOIN pizzas p
ON od.pizza_id = p.pizza_id;
```

Results | Messages

	total_revenue
1	817860.05

IDENTIFY THE HIGHEST-PRICED PIZZA

```sql
SELECT TOP 1*
FROM pizza_types pt INNER JOIN pizzas p
ON pt.pizza_type_id = p.pizza_type_id
ORDER BY p.price DESC;
```

Results | Messages

	pizza_type_id	name	category	ingredients	pizza_id	pizza_type_id	size	price
1	the_greek	The Greek Pizza	Classic	Kalamata Olives, Feta Cheese, Tomatoes, Garlic, ...	the_greek_xxl	the_greek	XXL	35.95

IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED

```sql
SELECT TOP 1 COUNT(od.order_details_id) AS order_count, p.size
FROM order_details od INNER JOIN pizzas p
ON od.pizza_id = p.pizza_id
GROUP BY p.size;
```

Results | Messages

	order_count	size
1	18526	L

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

```sql
SELECT TOP 5 pt.name, SUM(od.quantity) AS quantity
FROM pizza_types pt INNER JOIN pizzas p
ON pt.pizza_type_id = p.pizza_type_id
INNER JOIN order_details od
ON od.pizza_id = p.pizza_id
GROUP BY pt.name
ORDER BY quantity DESC;
```

Results | Messages

	name	quantity
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED

```sql
SELECT pt.category, SUM(od.quantity) AS total_quantity
FROM order_details od INNER JOIN pizzas p
ON od.pizza_id = p.pizza_id
INNER JOIN pizza_types pt
ON pt.pizza_type_id = p.pizza_type_id
GROUP BY pt.category
ORDER BY total_quantity DESC;
```

Results | Messages

	category	total_quantity
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

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

Results | Messages

	hour	order_count
1	9	1
2	10	8
3	11	1231
4	12	2520
5	13	2455
6	14	1472
7	15	1468
8	16	1920
9	17	2336
10	18	2399
11	19	2009
12	20	1642
13	21	1198
14	22	663

FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS

```
SELECT category, COUNT(name) AS no_of_pizzas
FROM pizza_types
GROUP BY category;
```

Results | Messages

	category	no_of_pizzas
1	Chicken	6
2	Classic	8
3	Supreme	9
4	Veggie	9

GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY

```
SELECT AVG(quantity) AS avg_pizzas_ordered_per_day FROM
(SELECT o.order_date, SUM(od.quantity) AS quantity
FROM order_details od INNER JOIN orders o
ON od.order_id = o.order_id
GROUP BY o.order_date) AS order_quantity;
```

Results | Messages

	avg_pizzas_ordered_per_day
1	138

DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE

```sql
SELECT TOP 3 pt.name, SUM(od.quantity * p.price) AS 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 revenue desc;
```

Results | Messages

	name	revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5

CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```
SELECT pt.category,
(SUM(od.quantity * p.price) / (SELECT ROUND(SUM(od.quantity*p.price),0) AS total_sales
FROM order_details od JOIN pizzas p
ON p.pizza_id = od.pizza_id)) * 100 AS revenue

FROM pizza_types pt JOIN pizzas p
ON pt.pizza_type_id = p.pizza_type_id
JOIN order_details od
ON od.pizza_id = p.pizza_id
GROUP BY pt.category
ORDER BY revenue DESC;
```

Results | Messages

	category	revenue
1	Classic	26.9059619005698
2	Supreme	25.4563128163742
3	Chicken	23.9551390213484
4	Veggie	23.6825923752235

ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME

```sql
SELECT order_date, SUM(revenue) OVER (ORDER BY order_date) AS cum_revenue
FROM
(SELECT o.order_date, SUM(od.quantity * p.price) AS revenue
FROM order_details od JOIN pizzas p
ON od.pizza_id = p.pizza_id
JOIN orders o
ON od.order_id = o.order_id
GROUP BY o.order_date) AS sales;
```

Results | Messages

	order_date	cum_revenue
1	2015-01-01	2713.85
2	2015-01-02	5445.75
3	2015-01-03	8108.15
4	2015-01-04	9863.6
5	2015-01-05	11929.55
6	2015-01-06	14358.5
7	2015-01-07	16560.7
8	2015-01-08	19399.05
9	2015-01-09	21526.4
10	2015-01-10	23990.35
11	2015-01-11	25862.65
12	2015-01-12	27781.7
13	2015-01-13	29831.3
14	2015-01-14	32358.7
15	2015-01-15	34343.5
16	2015-01-16	36937.65
17	2015-01-17	39001.75
18	2015-01-18	40978.6
19	2015-01-19	43365.75
20	2015-01-20	45763.65
21	2015-01-21	47804.2
22	2015-01-22	50300.9

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

```sql
SELECT name, revenue
FROM
(SELECT category, name, revenue, RANK() OVER (PARTITION BY category ORDER BY revenue DESC) AS RN
FROM
(SELECT pt.category, pt.name, SUM(od.quantity * p.price) AS revenue
FROM order_details od JOIN pizzas p
ON od.pizza_id = p.pizza_id
JOIN orders o
ON od.order_id = o.order_id
JOIN pizza_types pt
ON pt.pizza_type_id = p.pizza_type_id
GROUP BY pt.category, pt.name) AS a) AS B
WHERE rn <= 3;
```

Results | Messages

	name	revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5
4	The Classic Deluxe Pizza	38180.5
5	The Hawaiian Pizza	32273.25
6	The Pepperoni Pizza	30161.75
7	The Spicy Italian Pizza	34831.25
8	The Italian Supreme Pizza	33476.75
9	The Sicilian Pizza	30940.5
10	The Four Cheese Pizza	32265.7000000006
11	The Mexicana Pizza	26780.75
12	The Five Cheese Pizza	26066.5

THANK YOU!