PIZZA SALES ANALYSIS

Hello ! My name is **Shubham Shinde.** I am a **Data Analyst.** In this project , I have utilized SQL queries to analyze the sales of pizzas. I identified sales trends, customer preferences, and peak periods, enabling data-driven decisions to optimize sales strategies and improve business performance.

RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.

```sql
SELECT
    COUNT(order_id) AS total_orders
FROM
    orders;
```

total_orders
21350

TOTAL REVENUE GENERATED FROM PIZZA SALES

```sql
SELECT
    round(SUM(order_details.quantity * pizzas.price),2) AS total_sales
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id;
```

total_sales
817860.05

THE HIGHEST-PRICED PIZZA

```sql
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1;
```

name	price
The Greek Pizza	35.95

THE MOST COMMON PIZZA SIZE ORDERED

```sql
select * from order_details;

select quantity, count(order_details_id)
from order_details group by quantity limit 1;

SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC
LIMIT 1;S
```

	size	order_count
▶	L	18526

THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES

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

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

THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED

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

	category	Total_quantity
▶	Classic	14888
	Supreme	11987
	Veggie	11649
	Chicken	11050

THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY

```sql
SELECT
    HOUR(order_time), COUNT(order_id)
FROM
    orders
GROUP BY HOUR(order_time)
;
```

	HOUR(order_time)	COUNT(order_id)
	15	1468
	16	1920
	17	2336
	18	2399
	19	2009
	20	1642
	21	1198
	22	663
	23	28
	10	8
	9	1

THE CATEGORY-WISE DISTRIBUTION OF PIZZAS

```sql
SELECT
    pizza_types.category, COUNT(name) AS pizzas
FROM
    pizza_types
GROUP BY pizza_types.category;
```

category	pizzas
Chicken	6
Classic	8
Supreme	9
Veggie	9

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

```sql
SELECT
    ROUND(AVG(quantity), 0) as Average_orders_per_day
FROM
(SELECT
  orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details
        ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS order_quantity;
```

Average_orders_per_day
138

THE TOP 3 MOST ORDERED PIZZA BASED ON REVENUE

```sql
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3;
```

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

THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```sql
select pizza_types.category,
round(round(sum(order_details.quantity * pizzas.price),2) /
(select round(sum(order_details.quantity * pizzas.price),2)
as Total_sales
    from order_details join pizzas
on order_details.pizza_id = pizzas.pizza_id),2)* 100 as revenue
    from pizza_types join pizzas
on pizza_types.pizza_type_id = pizzas.pizza_type_id
    join order_details
on pizzas.pizza_id = order_details.pizza_id
    group by pizza_types.category
order by revenue desc;
```

category	revenue
Classic	27
Supreme	25
Veggie	24
Chicken	24

THE CUMULATIVE REVENUE GENERATED OVER TIME

```sql
select order_date,
sum(revenue) over(order by order_date) as cummulative_revenue
from
(select orders.order_date,
sum(order_details.quantity * pizzas.price) as revenue
from order_details join pizzas
on order_details.pizza_id = pizzas.pizza_id
join orders
on orders.order_id = order_details.order_id
group by orders.order_date) as sales;
```

order_date	cummulative_revenue
2015-01-01	2713.8500000000004
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	23990.350000000002
2015-01-11	25862.65
2015-01-12	27781.7

TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR PIZZA CATEGORY

```sql
select category,name, revenue from
(select category,name,revenue,
rank() over(partition by category order by revenue desc ) as rn
from
(select pizza_types.category, pizza_types.name,
sum(order_details.quantity * pizzas.price) as revenue
from pizza_types join pizzas
on pizza_types.pizza_type_id = pizzas.pizza_type_id
join order_details
on order_details.pizza_id = pizzas.pizza_id
group by pizza_types.category, pizza_types.name) as a) as b
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	The California Chicke
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	32265.700
Veggie	The Mexicana Pizza	26780.75
Veggie	The Five Cheese Pizza	26066.5

CONCLUSION

THIS ANALYSIS OF PIZZA SALES USING SQL QUERIES PROVIDED INSIGHTS INTO SALES TRENDS, CUSTOMER PREFERENCES, AND PEAK PERIODS. THESE FINDINGS WILL HELP MAKE INFORMED DECISIONS TO IMPROVE EFFICIENCY AND PROFITABILITY.

RECOMMENDATIONS

1. **ENHANCE MARKETING :** FOCUS ON POPULAR PIZZAS AND PEAK PERIODS.
2. **OPTIMIZE INVENTORY :** ADJUST BASED ON SALES TRENDS.
3. **CUSTOMER ENGAGEMENT :** IMPLEMENT LOYALTY PROGRAMS.
4. **FUTURE ANALYSIS :** CONTINUOUSLY MONITOR AND ADAPT STRATEGIES.

THANK YOU FOR YOUR ATTENTION. WE LOOK FORWARD TO DISCUSSING THESE INSIGHTS AND RECOMMENDATIONS FURTHER.