PIZZA SALES ANALYSIS

Analysing Pizza 🍕 Sales Using SQL

By:
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```sql
-- 1) Query The Total Number Of Orders Placed?
    SELECT COUNT(*) AS NO_OF_ORDERS
    FROM [DBO].[PIZZA_ORDERS];
```

Result

no_of_orders
21350

```sql
-- 2) Query The Total Number Of Pizza Id Types?
    SELECT COUNT(pizza_type_id) AS TOTAL_PIZZA_TYPE_IDS
    FROM [dbo].[pizza_types];
```

Result

TOTAL_PIZZA_TYPE_IDS
32

```sql
-- 3) Query The Total Number Of Pizza Types?
    SELECT COUNT(pizza_id) AS TOTAL_PIZZA_TYPES
    FROM [dbo].[pizzas];
```

Result

TOTAL_PIZZA_TYPES
96

```sql
-- 4) Query Total Order Quantity Placed?
    SELECT SUM(QUANTITY) AS TOTAL_ORDER_QUANTITY_PLACED
    FROM [dbo].[pizza_order_details];
```

Result

TOTAL_ORDER_QUANTITY_PLACED
49574

```sql
-- 5) Query The First Date Of Transction And Last Date Of Transaction?
    SELECT MIN(DATE) AS FIRST_TRANSCATION,
    MAX(DATE) AS LAST_TRANSCATION
    FROM [dbo].[pizza_orders];
```

Result

FIRST_TRANSCATION	LAST_TRANSCATION
2015-01-01	2015-12-31

```sql
-- 6) Query The Total Revenue Generated ?
    SELECT ROUND(SUM(P.PRICE*PD.QUANTITY),2) TOTAL_REVENUE
    FROM [dbo].[pizzas] P
    JOIN [dbo].[pizza_order_details] PD
    ON P.pizza_id=PD.pizza_id;
```

Result

TOTAL_REVENUE
817860.05

```sql
-- 7) Query The Highest Priced Pizza? #Display Pizza Name, Price
    select TOP 1 PT.name NAME,
    MAX(P.PRICE)  HIGEST_PRICE_PIZZA
    from [dbo].[pizza_types] PT
    JOIN [dbo].[pizzas] P
    ON PT.pizza_type_id=P.pizza_type_id
    GROUP BY PT.name
    ORDER BY MAX(PRICE) DESC;
```

Result

NAME	HIGEST_PRICE_PIZZA
The Greek Pizza	35.9500007629395

```sql
-- 8) Query The Lowest Priced Pizza? #Display Pizza Name, Price
    select TOP 1 PT.name NAME,
    MIN(P.PRICE) LOWEST_PRICE_PIZZA
    from [dbo].[pizza_types] PT
    JOIN [dbo].[pizzas] P
    ON PT.pizza_type_id=P.pizza_type_id
    GROUP BY PT.name
    ORDER BY MIN(PRICE);
```

Result

NAME	LOWEST_PRICE_PIZZA
The Pepperoni Pizza	9.75

```sql
-- 9) Query The Pizza Ordered Qty By Size?
    select P.SIZE,
    SUM(PO.QUANTITY) AS ORDERED_QTY
    from [dbo].[pizzas] P
    JOIN [dbo].[pizza_order_details] PO
    ON P.pizza_id=PO.pizza_id
    GROUP BY P.SIZE
    ORDER BY ORDERED_QTY DESC;
```

Result

SIZE	ORDERED_QTY
L	18956
M	15635
S	14403
XL	552
XXL	28

```sql
-- 10) Query The Pizza Ordered Qty By Category?
    SELECT category,
    SUM(QUANTITY) AS ORDERED_QTY
    FROM [dbo].[pizza_types] PT
    JOIN [dbo].[pizzas] P
    ON P.pizza_type_id=PT.pizza_type_id
    JOIN [pizza_order_details] PO
    ON PO.pizza_id=P.pizza_id
    GROUP BY category
    ORDER BY ORDERED_QTY DESC;
```

Result

category	ORDERED_QTY
Classic	14888
Supreme	11987
Veggie	11649
Chicken	11050

```
-- 11) Query The Pizza Ordered Qty By Pizza Name?
        select NAME,
        SUM(QUANTITY) TOTAL_QTY
        from [dbo].[pizza_types] PT
        JOIN [dbo].[pizzas] P
        ON PT.pizza_type_id=P.pizza_type_id
        JOIN  [dbo].[pizza_order_details] PO
        ON P.pizza_id=PO.pizza_id
        GROUP BY NAME
        ORDER BY TOTAL_QTY DESC;
```

NAME	TOTAL_QTY
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371
The California Chicken Pizza	2370
The Sicilian Pizza	1938
The Spicy Italian Pizza	1924
The Southwest Chicken Pizza	1917
The Big Meat Pizza	1914
The Four Cheese Pizza	1902
The Italian Supreme Pizza	1884
The Vegetables + Vegetables Pizza	1526
The Mexicana Pizza	1484
The Napolitana Pizza	1464
The Prosciutto and Arugula Pizza	1457
The Pepper Salami Pizza	1446
The Spinach and Feta Pizza	1446
The Italian Capocollo Pizza	1438
The Greek Pizza	1420
The Five Cheese Pizza	1409
The Pepperoni, Mushroom, and Peppers Pizza	1359
The Green Garden Pizza	997
The Chicken Alfredo Pizza	987
The Italian Vegetables Pizza	981
The Chicken Pesto Pizza	973
The Spinach Pesto Pizza	970
The Soppressata Pizza	961
The Spinach Supreme Pizza	950
The Calabrese Pizza	937
The Mediterranean Pizza	934
The Brie Carre Pizza	490

```sql
-- 12) Query The Top 7 Types Based Orders Qty? Display Pizza Name, Order Qty
select TOP 7 NAME,
SUM(QUANTITY) TOTAL_QTY
from [dbo].[pizza_types] PT
JOIN [dbo].[pizzas] P
ON PT.pizza_type_id=P.pizza_type_id
JOIN  [dbo].[pizza_order_details] PO
ON P.pizza_id=PO.pizza_id
GROUP BY NAME
ORDER BY TOTAL_QTY DESC;
```

Result

NAME	TOTAL_QTY
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371
The California Chicken Pizza	2370
The Sicilian Pizza	1938

```
-- 13) Query The Distribution Of Orders By Hour Of Day?
    select DATEPART(HOUR,TIME) AS HOUR_OF_DAY,
    COUNT(*) AS NO_OF_PIZZAS
    from [dbo].[pizza_orders]
    GROUP BY DATEPART(HOUR,TIME)
    ORDER BY NO_OF_PIZZAS DESC;
```

Result

HOUR_OF_DAY	NO_OF_PIZZAS
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
9	1

```sql
-- 14) Query The Pizza Order Qty By Date And Calculate The Average Numbers Of Pizzas Ordered Per Day?
    SELECT PO.DATE,
    SUM(PD.quantity) AS TOTAL_PIZZAS_ORDERED,
    AVG(SUM(PD.quantity)) OVER() AS AVG_PIZZAS_PER_DAY
    FROM [dbo].[pizza_orders] PO
    JOIN [dbo].[pizza_order_details] PD
    ON PO.order_id = PD.order_id
    GROUP BY PO.DATE
    ORDER BY PO.DATE;
```

Result

DATE	TOTAL_PIZZAS_ORDERED	AVG_PIZZAS_PER_DAY
2015-01-01	162	138
2015-01-02	165	138
2015-01-03	158	138
2015-01-04	106	138
2015-01-05	125	138
2015-01-06	147	138
2015-01-07	138	138
2015-01-08	173	138
2015-01-09	127	138
2015-01-10	146	138
2015-01-11	116	138
2015-01-12	119	138
2015-01-13	120	138
2015-01-14	150	138
2015-01-15	123	138
2015-01-16	158	138
2015-01-17	125	138
2015-01-18	122	138
2015-01-19	142	138
2015-01-20	143	138
2015-01-21	129	138

```sql
-- 16) Query The Percentage Contribution Of Each Pizza Category To Total Revenue?
WITH CAT_REV AS
(
    SELECT CATEGORY,
    SUM(PRICE*QUANTITY) AS TOTAL_REVENUE
    FROM [dbo].[pizza_types] PT
    JOIN [dbo].[pizzas] P
    ON PT.pizza_type_id=P.pizza_type_id
    JOIN [dbo].[pizza_order_details] PD
    ON PD.pizza_id=P.pizza_id
    GROUP BY category
)
SELECT CATEGORY,
TOTAL_REVENUE,
(TOTAL_REVENUE*100/(SELECT SUM(TOTAL_REVENUE) FROM CAT_REV)) AS PERCENTAGE
FROM CAT_REV
ORDER BY PERCENTAGE DESC;
```

Result

CATEGORY	TOTAL_REVENUE	PERCENTAGE
Classic	220053.100021362	26.9059602306976
Supreme	208196.99981308	25.4563112111462
Chicken	195919.5	23.9551375322885
Veggie	193690.451004028	23.6825910258677

```sql
-- 17) Analyse the cumulative revenue generated over time?
        WITH DATE_rEV AS
        (select DATE,
        SUM(PRICE*QUANTITY) AS REVENUE
        from [dbo].[pizza_order_details] POD
        JOIN [dbo].[pizzas] P ON
        POD.PIZZA_ID=P.PIZZA_ID
        JOIN [dbo].[pizza_orders]PO
        ON PO.order_id=POD.order_id
        GROUP BY DATE
        )
        SELECT DATE,REVENUE ,
        SUM(REVENUE)OVER(ORDER BY DATE) AS CUMMULATIVE_REVENUE
        FROM DATE_REV;
```

Result

	DATE	REVENUE	CUMMULATIVE_REVENUE
1	2015-01-01	2713.85000228882	2713.85000228882
2	2015-01-02	2731.90000152588	5445.7500038147
3	2015-01-03	2662.40000343323	8108.15000724792
4	2015-01-04	1755.45000076294	9863.60000801086
5	2015-01-05	2065.95000076294	11929.5500087738
6	2015-01-06	2428.95000267029	14358.5000114441
7	2015-01-07	2202.20000076294	16560.700012207
8	2015-01-08	2838.35000610352	19399.0500183105

```sql
-- 18) Determine The Top 3 Most Ordered Pizza Types Based On Revenue For Each Category?
WITH PizzaRevenue AS (
SELECT PT.category,PT.name AS PIZZA_NAME,
SUM(PD.quantity * P.price) AS REVENUE,
SUM(PD.quantity) AS ORDER_QTY,
RANK() OVER (PARTITION BY PT.category ORDER BY SUM(PD.quantity * P.price) DESC
) AS REVENUE_RANK
FROM [dbo].[pizza_types] PT
JOIN [dbo].[pizzas] P
ON PT.pizza_type_id = P.pizza_type_id
JOIN [dbo].[pizza_order_details] PD
ON PD.pizza_id = P.pizza_id
GROUP BY PT.category, PT.name)
SELECT category,PIZZA_NAME,REVENUE, ORDER_QTY,REVENUE_RANK
FROM PizzaRevenue
WHERE REVENUE_RANK <= 3
ORDER BY category, REVENUE_RANK;
```

Result

	category	PIZZA_NAME	REVENUE	ORDER_QTY	REVENUE_RANK
1	Chicken	The Thai Chicken Pizza	43434.25	2371	1
2	Chicken	The Barbecue Chicken Pizza	42768	2432	2
3	Chicken	The California Chicken Pizza	41409.5	2370	3
4	Classic	The Classic Deluxe Pizza	38180.5	2453	1
5	Classic	The Hawaiian Pizza	32273.25	2422	2
6	Classic	The Pepperoni Pizza	30161.75	2418	3
7	Supreme	The Spicy Italian Pizza	34831.25	1924	1
8	Supreme	The Italian Supreme Pizza	33476.75	1884	2
9	Supreme	The Sicilian Pizza	30940.5	1938	3
10	Veggie	The Four Cheese Pizza	32265.7...	1902	1
11	Veggie	The Mexicana Pizza	26780.75	1484	2
12	Veggie	The Five Cheese Pizza	26066.5	1409	3

THANKS FOR READING