PIZZA SALES ANALYSIS

SQL

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OBJECTIVE:

ANALYZE PIZZA SALES DATA TO UNCOVER INSIGHTS AND TRENDS.

DATA SUMMARY:

TOTAL TABLES: 4

- ORDERS: 21,350 RECORDS.
- ORDER DETAILS: 48,620 RECORDS.
- PIZZAS: 96 RECORDS.
- PIZZA TYPES: 32 RECORDS.

DATA IMPORT PROCESS

PROCESS:

Downloaded CSV files.
Imported data into SQL using MySQL Workbench

VERIFICATION:

Checked data types and primary/foreignkey constraints.

QUERIES WITH RESULTS

TOTAL NUMBER OF ORDERS PLACED.

```
SELECT
    COUNT(*) AS Total_number_of_orders
FROM
    orders;
```

Result Grid | Filter Rows:

Total_number_of_orders
21350

TOTAL REVENUE GENERATED FROM PIZZA SALES.

```
SELECT
    SUM(o.quantity * p.price) AS total_sales
FROM
    order_details o
        JOIN
    pizzas p ON o.pizza_id = p.pizza_id;
```

Result Grid | Filter

total_sales
817860.04999993

IDENTIFIED THE HIGHEST-PRICED PIZZA.

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

Result Grid | Filter Ro

name	price
The Greek Pizza	35.95

MOST COMMON PIZZA SIZE ORDERED.

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

Result Grid | Filt

order_count	size
18526	L

TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

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

Result Grid | Filter Rows:

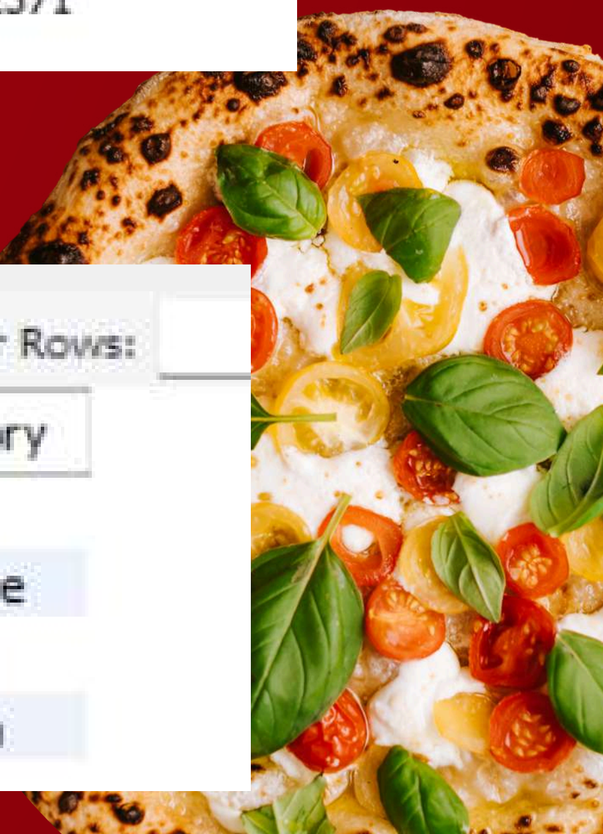
name	quantity
The Classic Deluxe Pizza	2453
The Barbecue Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

MOST ORDERED PIZZA CATEGORY

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

Result Grid | Filter Rows:

Total_quantity	category
14888	Classic
11987	Supreme
11649	Veggie
11050	Chicken



PEAK ORDERING HOURS

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

Result Grid | Filter Rows

Hours	Orders_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

CATEGORY DISTRIBUTION

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

Result Grid | Filter Rows

category	count(name)
Chicken	6
Classic	8
Supreme	9
Veggie	9

PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.

```sql
SELECT
    pt.category, round(SUM(p.price * od.quantity)/(SELECT
    round(SUM(od.quantity * p.price),0) AS total_sales
FROM
    order_details od
        JOIN
    pizzas p ON od.pizza_id = p.pizza_id) * 100,2) as revenue
FROM
    pizza_types pt
        JOIN
    pizzas p ON p.pizza_type_id = pt.pizza_type_id
        JOIN
    order_details od ON od.pizza_id = p.pizza_id
    group by pt.category
    order by revenue desc;
```

Result Grid | Filte

category	revenue
Classic	26.91
Supreme	25.46
Chicken	23.96
Veggie	23.68

CUMULATIVE REVENUE GENERATED OVER TIME

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

Result Grid | Filter Rows:

order_date	Cummulative_revenue
2015-01-01	2713.850000000004
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
2015-01-13	29831.300000000003
2015-01-14	32358.700000000004

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

```sql
select category, name, revenue, top_3 from

(select category, name, revenue, rank() over(partition by category order by revenue desc)  as Top_3 from

(select pt.category,pt.name, sum(od.quantity * p.price) as revenue from pizza_types pt
join pizzas p on p.pizza_type_id = pt.pizza_type_id
join order_details od on od.pizza_id = p.pizza_id
group by pt.category,pt.name) as Total_revenue) as rn
where top_3 <= 3;
```

Result Grid | Filter Rows: | Export: | Wrap

category	name	revenue	top_3
Chicken	The Thai Chicken Pizza	43434.25	1
Chicken	The Barbecue Chicken Pizza	42768	2
Chicken	The California Chicken Pizza	41409.5	3
Classic	The Classic Deluxe Pizza	38180.5	1
Classic	The Hawaiian Pizza	32273.25	2
Classic	The Pepperoni Pizza	30161.75	3
Supreme	The Spicy Italian Pizza	34831.25	1
Supreme	The Italian Supreme Pizza	33476.75	2
Supreme	The Sicilian Pizza	30940.5	3
Veggie	The Four Cheese Pizza	32265.70000000065	1
Veggie	The Mexicana Pizza	26780.75	2
Veggie	The Five Cheese Pizza	26066.5	3

CONCLUSION:

KEY INSIGHTS

- Cumulative revenue has shown steady growth, with peaks during weekends and holidays.
- Large size pizzas from specific categories （ Classic, Supreme, Veggie, chicken) consistently generate the highest revenue.

ACTIONABLE RECOMMENDATIONS

- Focus campaigns on popular pizza types and sizes, offering promotions to boost sales
- Segment customers by preferences and offer personalized deals, especially for frequent large pizza buyers

THANK YOU!