Pizza Sales Analytics: Decoding Culinary Consumer Trends

Welcome to the pizza sales analytics presentation. We'll explore key consumer trends. This will uncover insights to boost revenue and refine strategy. Let's dive into the world of pizza data!

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Order Volume and Revenue Overview

Total Orders

We processed a significant number of orders. This shows a strong demand for our pizzas.

Total Revenue

Pizza sales generated substantial revenue. This demonstrates the profitability of our business.

Analyzing order numbers with total revenue provides essential information about demand. By understanding these metrics, we can assess profitability.

```sql
-- Retrieve the total number of orders placed.
select count(order_id)
from orders;
```

```sql
SELECT
    ROUND(SUM(o.quantity * p.price), 2) AS total_sale
FROM
    order_details AS o
        JOIN
    pizzas AS p ON o.pizza_id = p.pizza_id
```

	count(order_id)
▶	21350

	total_sale
▶	46725.25

Pizza Pricing and Size Preferences

Highest-Priced Pizza

Identifying the pizza with the highest price point helps us in understanding value perception.

```sql
-- Identify the highest-priced pizza.

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

name	price
The Greek Pizza	35.95

Most Common Size

Knowing the most ordered pizza size allows us to optimize production and inventory.

```sql
-- Identify the most common pizza size ordered.

select pizzas.size, count(order_details.order_details_id) as count
from pizzas
join order_details on pizzas.pizza_id = order_details.pizza_id
group by pizzas.size
order by count desc;
```

size	count
L	1089
M	868
S	775
XL	34

Determining the pizza size and its popularity offers more information about common customer preferences.

Top 5 Pizza Types by Order Quantity

The Pepperoni Pizza

Quantity: 169

The California Chicken

Quantity: 139

The Barbecue Chicken

Quantity: 135

The Thai Chicken Pizza

Quantity: 134

The Sicilian Pizza

Quantity: 128

```sql
-- List the top 5 most ordered pizza types along with their quantities.

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

Discovering our best-selling pizzas is crucial. This lets us focus on promoting popular items.

Category Quantity and Hourly Order Distribution

1

Pizza Categories

Identify the distribution of pizza categories by quantity ordered.

2

Hourly Order Distribution

Determine at which hour there's a high demand for pizzas.

```sql
-- Join the necessary tables to find the total quantity of each pizza category ordered.

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

	category	quantity
▶	Chicken	619
	Classic	833
	Supreme	704
	Veggie	669

```sql
-- Determine the distribution of orders by hour of the day.

SELECT
    HOUR(order_time) AS hours, COUNT(order_id) AS order_count
FROM
    orders
GROUP BY HOUR(order_time)
```

The distribution of orders by hour of the day is key. It is essential for efficient staffing and resource allocation.

Pizza Category Distribution and Daily Averages

1 Category-wise distribution

Relevant tables show category-wise distribution.

```
-- Join relevant tables to find the category-wise distribution of pizzas.

select pizza_types.category, count(pizza_types.name)
from pizza_types
group by pizza_types.category
```

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

2 Average

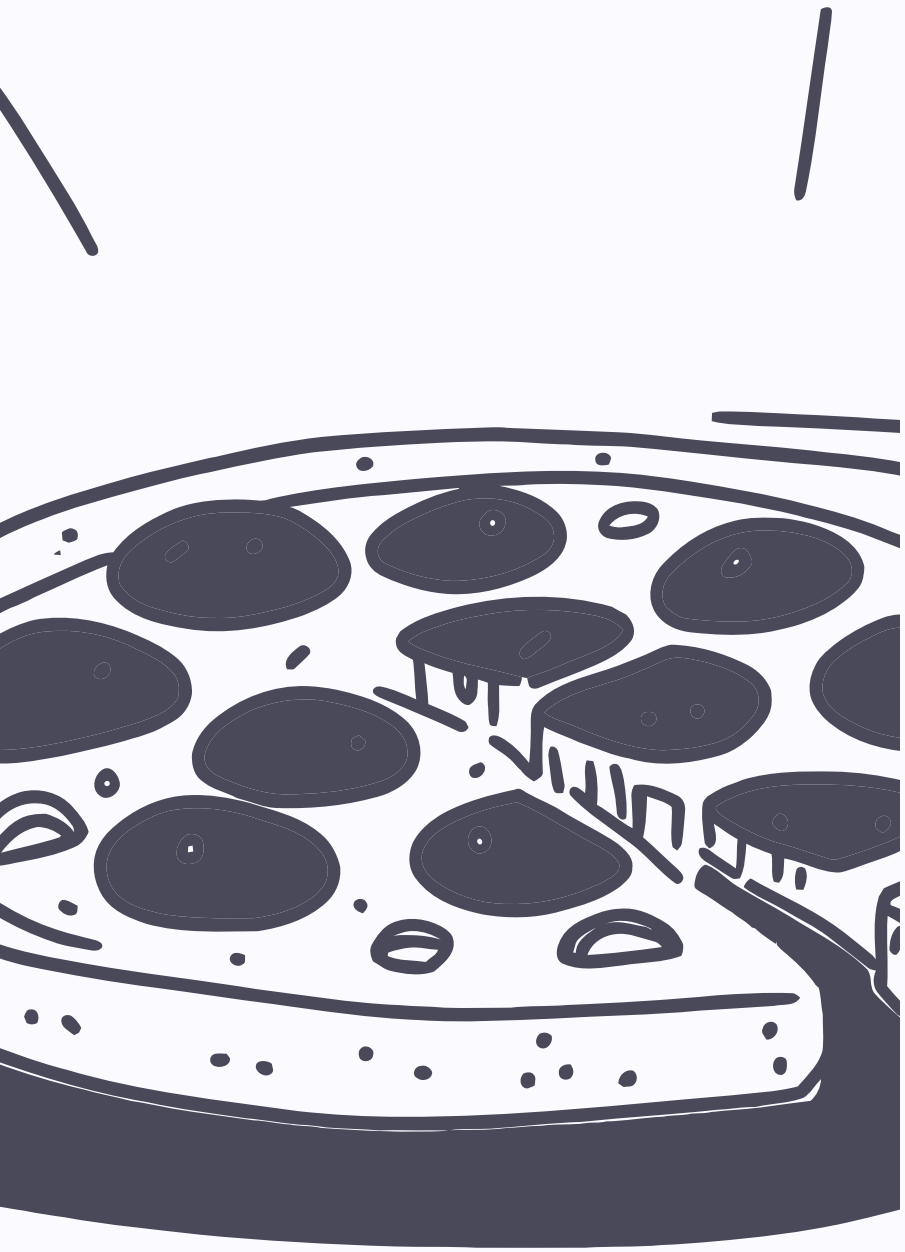
Find number of pizzas ordered per day.

```
-- Group the orders by date and calculate the average number of pizzas ordered per day.

SELECT
    round(AVG(sum_orders), 0)
FROM
    (SELECT
        o.order_date, SUM(od.quantity) AS sum_orders
    FROM
        order_details AS od
    JOIN orders AS o ON o.order_id = od.order_id
    GROUP BY o.order_date) AS sub
```

	avg_orders
▶	135

Insights into distribution and averages can help you predict demand and prepare accordingly.



Top 3 Pizza Types by Revenue

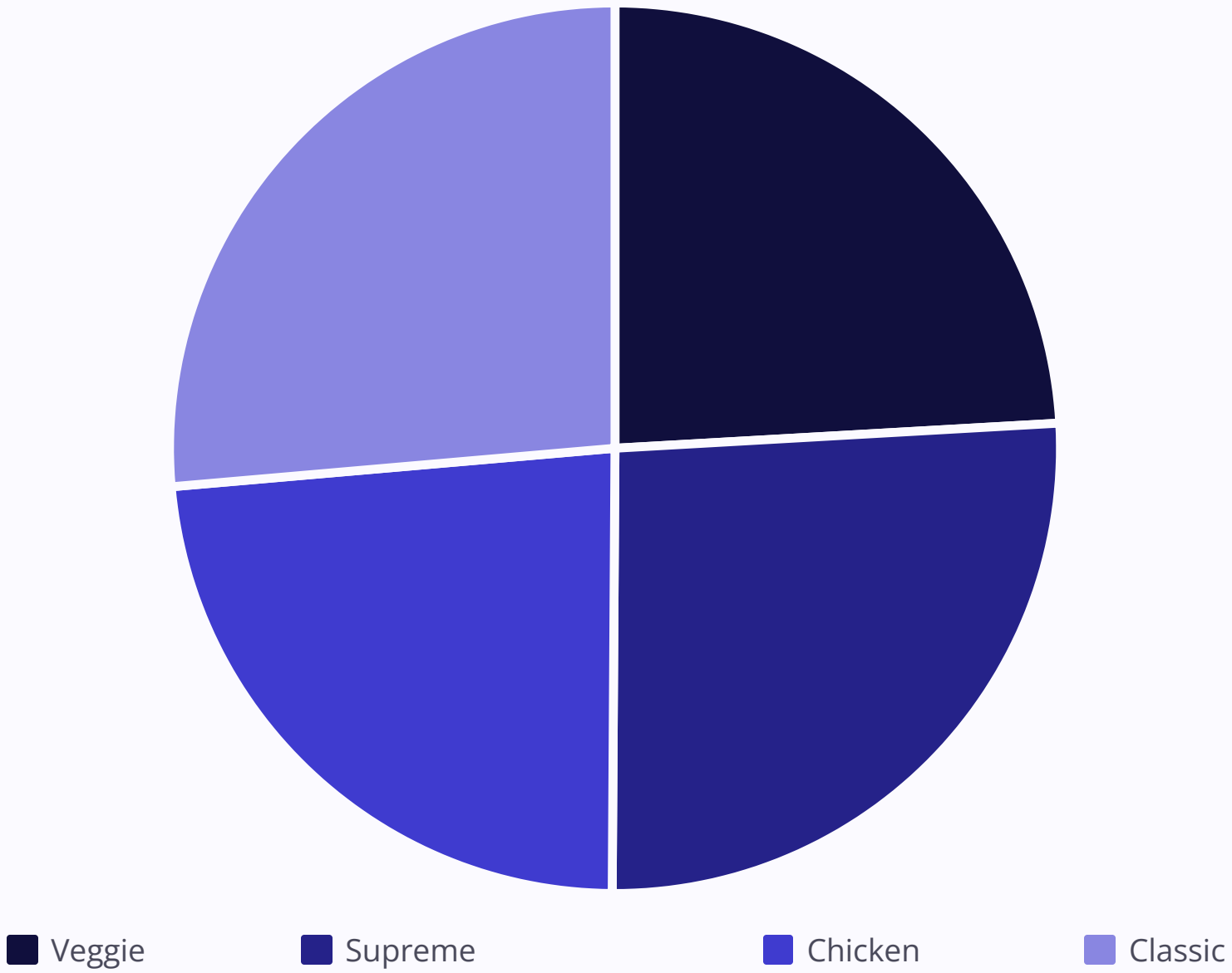
1. The Thai Chicken Pizza
   Revenue: 2484.5
2. The Barbecue Chicken Pizza
   Revenue: 2401.25
3. California Chicken Pizza
   Revenue: 2380.25

```sql
-- Determine the top 3 most ordered pizza types
-- based on revenue.

select pt.name, sum(od.quantity*p.price) as revenue
from order_details od
join pizzas p on p.pizza_id = od.pizza_id
join pizza_types pt on pt.pizza_type_id = p.pizza_type_id
group by pt.name
order by revenue desc
limit 3;
```

By understanding the top revenue-generating pizzas, we can allocate resources efficiently. Concentrating on high-profit items is a key strategy.

Revenue Percentage Contribution by Pizza Type




```sql
-- Calculate the percentage contribution of each pizza type
-- to total revenue.

SELECT
    pt.category,
    round(SUM(od.quantity * p.price) / SUM(od.quantity), 2) AS average_price_per_quantity
FROM
    order_details od
JOIN
    pizzas p ON p.pizza_id = od.pizza_id
JOIN
    pizza_types pt ON pt.pizza_type_id = p.pizza_type_id
GROUP BY
    pt.category;
```

Knowing the revenue percentages can help in identifying key areas for optimization. This provides focus on the most impactful pizzas.

Cumulative Revenue Over Time

Tracking

Track total revenue over time.

Growth

Measure the growth.

Future

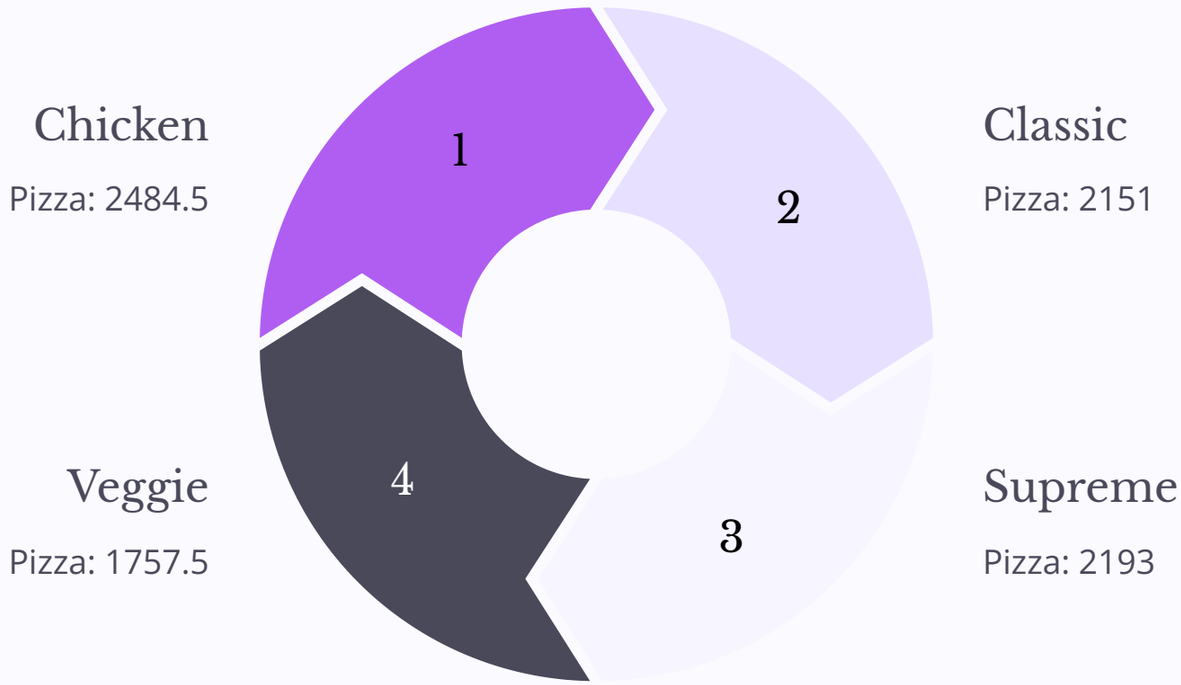
Prepare for the future based on growth.

```sql
-- Analyze the cumulative revenue generated over time.

select order_date, round(sum(revenue) over(order by order_date), 2) as cumulative_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 sub
group by order_date
```

Analyzing cumulative revenue over time helps identify growth trends. It is important for predicting future performance.

Top Revenue-Generating Pizzas by Category




```sql
-- Determine the top 3 most ordered pizza types
-- based on revenue for each pizza category.

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 sub_a ) as sub_b
where rn <= 3
```

This insight enables targeted marketing. Tailoring promotions to specific category preferences is key.