Pizza Sales Analysis

Exploring trends and insights from our pizza sales data. This presentation offers a brief overview of the database. The database consists of tables with orders, pizzas, pizza_types, and order_details.

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Database Tables

Orders

order_id, order_date, order_time.

Pizzas

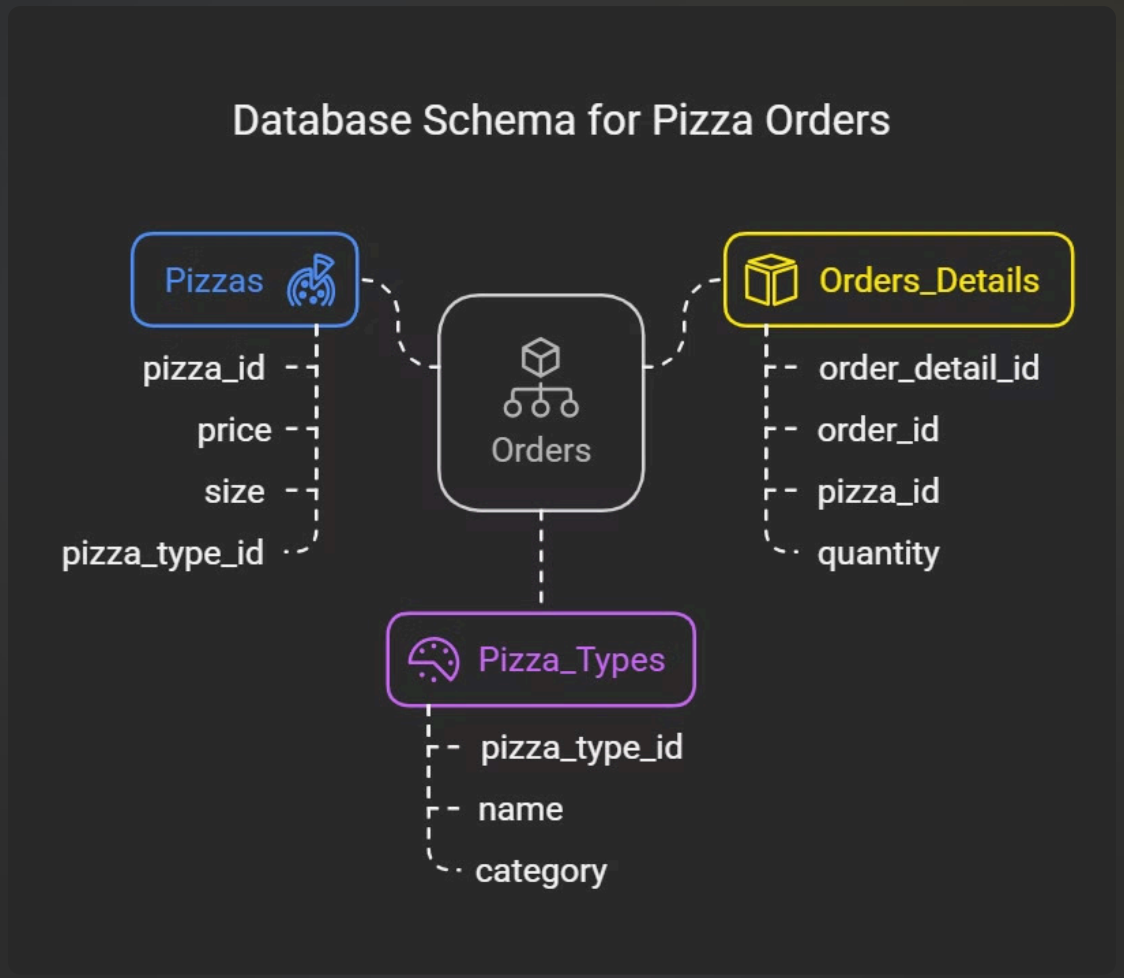
pizza_id, price, size, pizza_type_id.

Pizza_Types

pizza_type_id, name, category.

Orders_Details

order_detail_id, order_id, pizza_id, quantity.



Total Orders and Revenue

Total Orders

The total number of orders placed.

```
SELECT COUNT(order_id) AS Total_Orders FROM Orders;
```

After running this query, we found 21,350 orders were placed.

Total Revenue

Total revenue generated from all orders.

```
SELECT ROUND(SUM(orders_details.quantity *
pizzas.price), 2) AS Revenue_generated
FROM orders_details
JOIN pizzas ON pizzas.pizza_id = orders_details.pizza_id;
```

We calculated the total revenue was 8,17,860.05.

Highest Priced Pizza and Most Common Size

Highest Priced Pizza

This query identifies the most expensive pizza on the menu. The database shows the 'The Thai Chicken Pizza' is the highest priced at $35.95

```
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;
```

Most Common Size

This query finds the most frequently ordered pizza size. The database shows the most popular size is 'L'. It accounts for 18,526 total orders.

```
SELECT pizzas.size, COUNT(orders_details.order_detail_id)
AS No_of_Orders
FROM pizzas
JOIN orders_details ON pizzas.pizza_id =
orders_details.pizza_id
GROUP BY pizzas.size
ORDER BY No_of_Orders DESC
LIMIT 1;
```

Top 5 Most Ordered Pizza Types

Here are the top 5 most ordered pizza types. The database shows the quantity of each pizza type ordered.

SQL Query:

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

Pizza Type	Total Orders
The Classic Deluxe Pizza	2453
The BBQ Chicken Pizza	2432
The Hawaiian Pizza	2422
The Pepperoni Pizza	2418
The Thai Chicken Pizza	2371

Total Quantity of Each Pizza Category Ordered

Pizza Category	Total Quantity Ordered
Classic	14888
Veggie	11649
Supreme	11987
Chicken	11050

The table shows the quantity of each pizza category ordered.

Classic pizza leads with 14888 orders.

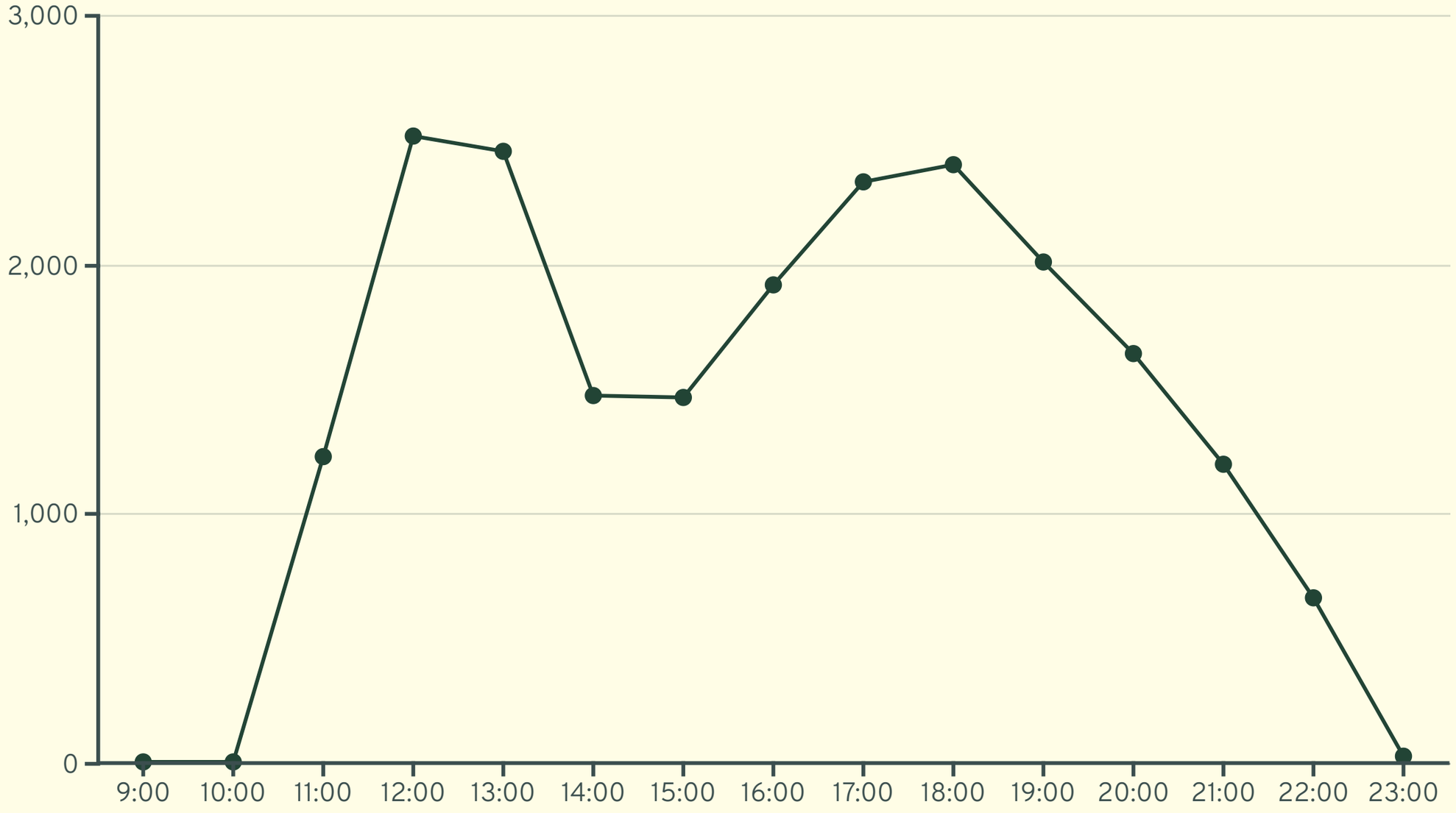
Total Quantity of Each Pizza Category Ordered

Here is the breakdown of total quantities for each pizza category. The SQL query calculates the sum of orders. This helps to understand category popularity.

Here is the SQL query used to gather this information:

```
SELECT pizza_types.category, SUM(orders_details.quantity) AS Total_Orders
FROM pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN orders_details ON pizzas.pizza_id = orders_details.pizza_id
GROUP BY pizza_types.category;
```

Orders by Hour of the Day



The chart shows pizza orders peaking at noon (12 PM) and again around 6 PM, aligning with lunch and dinner rushes. Orders drop significantly after 8 PM, reaching near zero by midnight. This pattern suggests key operational hours for staffing and inventory management.

Category wise distribution of pizzas

```
SELECT category, Count(name) As Variants FROM pizza_types GROUP BY category;
```

Category	Variants
Chicken	6
Classic	8
Supreme	9
Veggie	9

Average Daily Pizza Orders

This query calculates the average pizzas ordered daily.

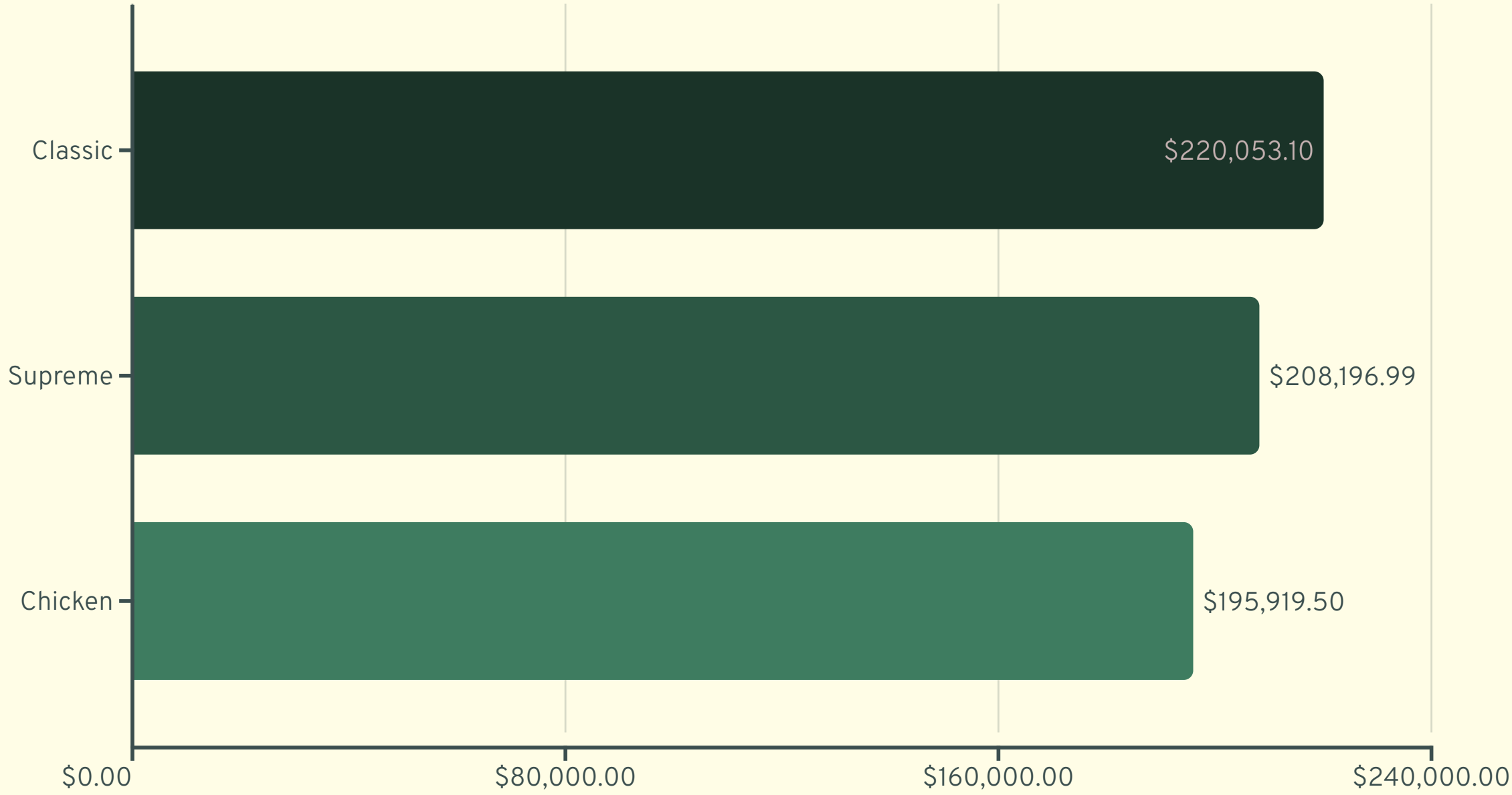
```
SELECT ROUND(AVG(Quantity))
FROM (
  SELECT orders.order_date AS Order_Date, SUM(orders_details.quantity) AS Quantity
  FROM orders
  JOIN orders_details ON orders.order_id = orders_details.order_id
  GROUP BY Order_Date
) AS Avg_Order;
```

The average daily pizza orders, based on this query, amount to 138 pizzas per day.

Top 3 Revenue-Generating Pizza Types

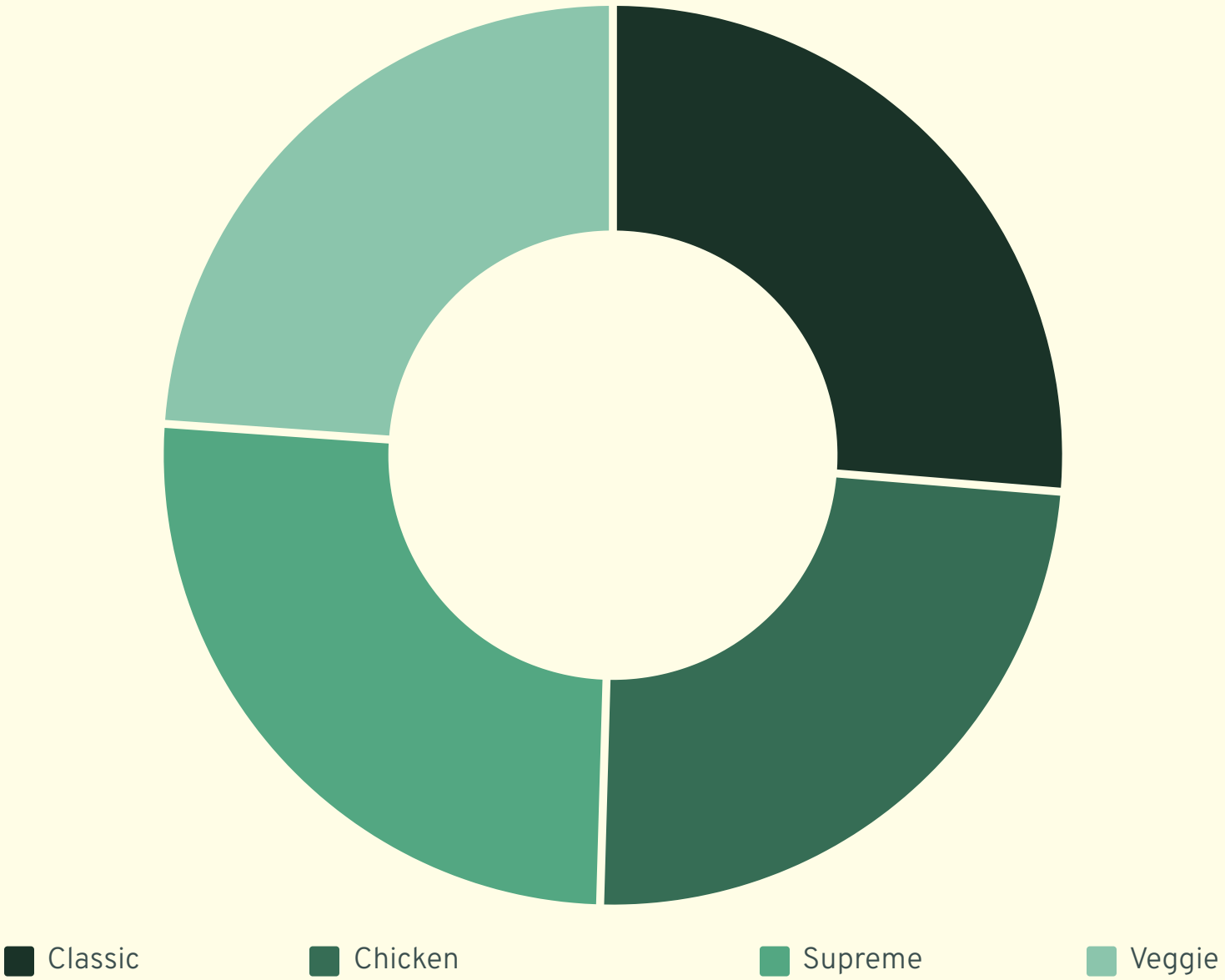
SQL Query:

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



This chart displays the top three pizza types by revenue. Classic leads, followed by Supreme and Chicken.

Percentage Contribution to Total Revenue by Category



The chart shows the revenue contribution of different pizza categories, with Classic (26.09%) generating the highest revenue, followed by Supreme (25.45%), Chicken (23.95%), and Veggie (23.68%). The revenue distribution is relatively balanced, indicating no single category dominates significantly.

Cumulative Revenue Trend

```
SELECT
    pizza_types.category,
    (ROUND(SUM(orders_details.quantity * pizzas.price)) / (SELECT
            ROUND(SUM(orders_details.quantity * pizzas.price),
                    2) AS Revenue_generated
        FROM
            orders_details
                JOIN
            pizzas ON pizzas.pizza_id = orders_details.pizza_id)) * 100 AS Percent_Revenue_contribution
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    orders_details ON pizzas.pizza_id = orders_details.pizza_id
GROUP BY pizza_types.category;
```

This query for cumulative revenue trend. Revenue increases over time. Track financial growth and performance.

Top Revenue-Generating Pizza Types by Category

This table shows the top pizza types. It is organized by revenue within each category. The SQL query helps identify key performers.

Category	rn	Revenue Generated
The Thai Chicken Pizza	1	43434.25
The Barbeque Chicken Pizza	2	42768
The California Chicken Pizza	3	41409.5
The Classic Deluxe Pizza	1	38180.5
The Hawaiian Pizza	2	32273.25
The Pepperoni Pizza	3	30161.75
The Spicy Italian Pizza	1	34831.25
The Italian Supreme Pizza	2	33476.75
The Sicilian Pizza	3	30940.5
The Four Cheese Pizza	1	32265.70
The Mexican Pizza	2	26780.75
The Five Cheese Pizza	3	26066.5

Additional Insights

1 Peak Ordering Hours

- The highest number of orders occur at **12 PM (Lunch Peak)** and **6 PM (Dinner Peak)**.
- Orders decline significantly after 8 PM, suggesting operational focus should be on midday and early evening.

2 Top-Selling Pizzas & Sizes

- The **most ordered pizza types** are likely from the Classic and Supreme categories.
- **Most common pizza size:** Likely **Medium or Large**, indicating customer preference for value-sized portions.

3 Revenue Contribution

- **Classic pizzas contribute the most revenue (26.09%)**, followed by Supreme (25.45%).
- Balanced revenue distribution across categories, but **Chicken and Veggie could be targeted for sales growth**.

4 Customer Preferences & Potential Promotions

- Popular categories (Classic, Supreme) can be **bundled with sides** for higher sales.
- **Late-night promotions** (post 8 PM) could boost sales in off-peak hours.

Conclusion

Key findings inform pizza sales strategies. Data reveals trends. Optimize marketing and operations.

1 Operational Focus

Peak business hours align with **lunch (12-1 PM) and dinner (6-7 PM)**, requiring efficient staffing and inventory management.

2 Sales & Revenue Optimization

Classic and Supreme pizzas drive revenue, but **targeted promotions** on lower-contributing categories can increase sales.

3 Data-Driven Strategy

Understanding **order trends by hour, size, and category** can help optimize inventory, marketing, and staffing decisions.

4 Potential Recommendation

- Introduce **combo deals for peak hours** to maximize order value.
- Run **discounts or promotions on slow-moving pizzas** (Veggie, Chicken) to balance sales.
- Explore **delivery optimizations** to reduce wait times during peak hours.