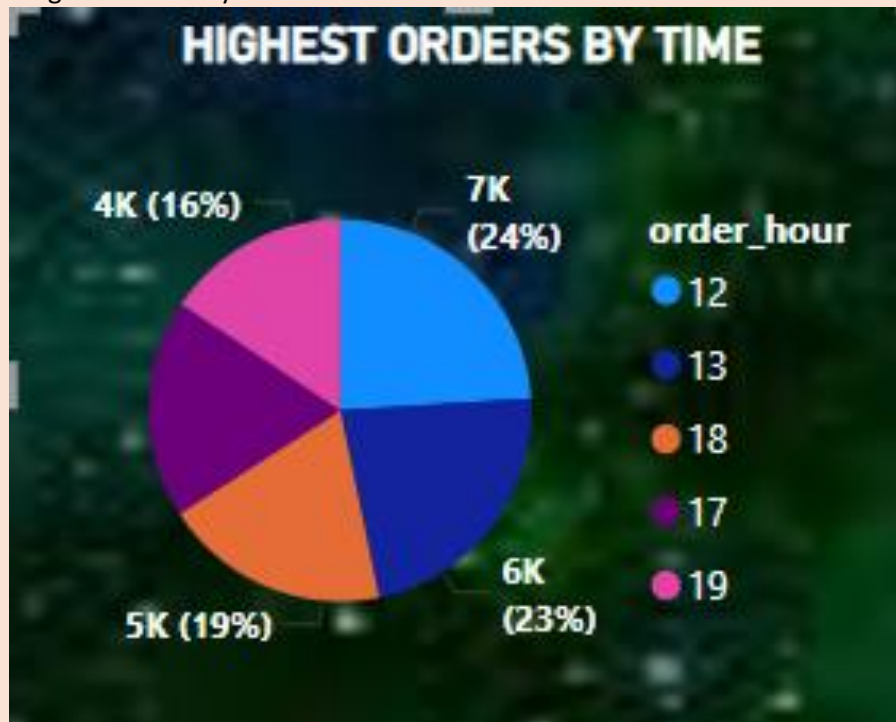# Pizzas Analysis

Data Exploration

Relevant inquiries

Q1. What is the distribution of orders across different times of the day?

Highest orders by time

Data Analysis

Order Times:
The time slots represented in the dataset are 12, 13, 17, 18, and 19 (hours in a 24-hour format).
Order Counts:
12: 4K (16%)
13: 5K (19%)
17: 6K (23%)
18: 7K (24%)
19: 4K (16%)

Visualization Insights

Peak Hour:
The highest number of orders (7K) occurs at 18, accounting for 24% of total orders.
Notable Time Slots: 17 and 13 also have significant order counts, making up 23% and 19%, respectively.
Lower Activity: Time slots 12 and 19 see relatively fewer orders at 16% each.
Conclusion and Insights

Optimal Timing:
The majority of orders occur between 17:00 and 18:00, indicating peak activity during these hours.
Balanced Distribution: While the orders are distributed across the five time slots, late afternoon to early evening (17–18) shows a clear preference for activity.

Q2 What is the distribution of the lowest orders across different times of the day?

Lowest order by time

Orders by Time Distribution
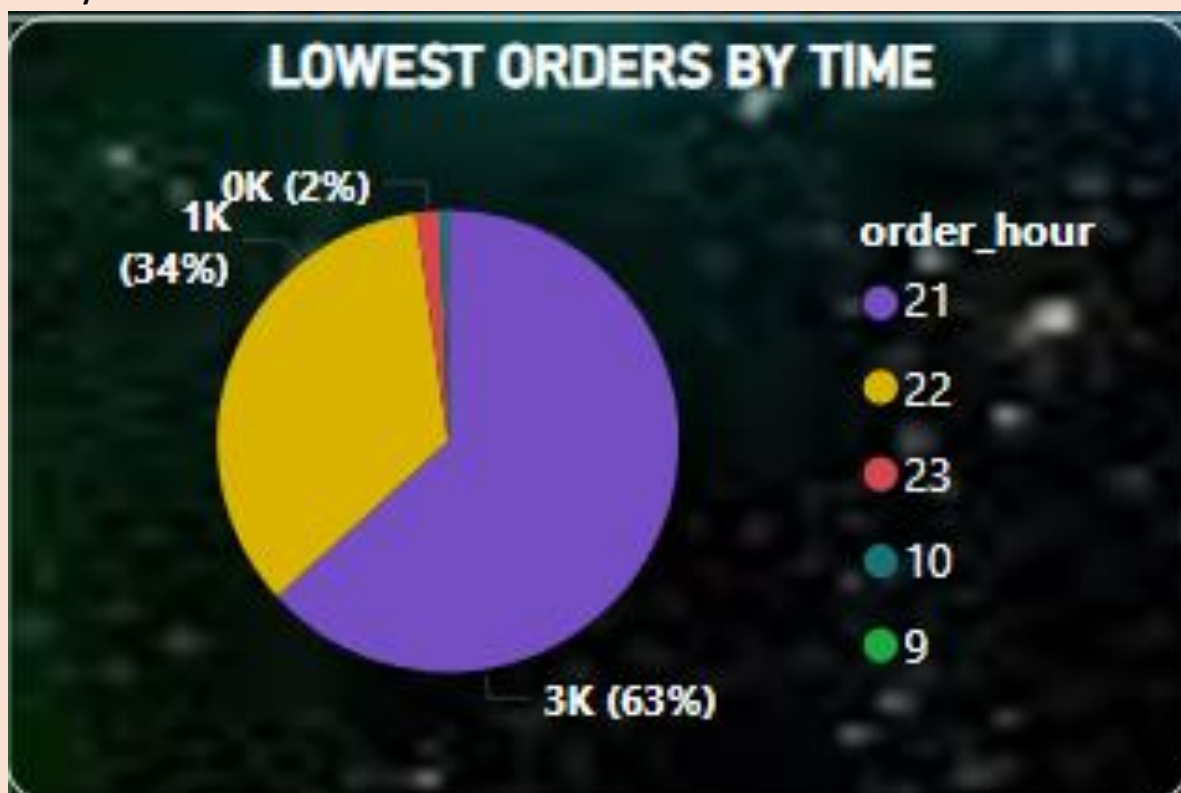
Data Analysis

- **Order Times:**
- The time slots represented in the dataset are 9, 10, 21, 22, and 23 (hours in a 24-hour format).
- **Order Counts:**
  - o 21: 3K (63%)
  - o 22: 1K (34%)
  - o 23: 0K (2%)
  - o 9: No data indicated
  - o 10: No data indicated

Visualization Insights

- Dominant Low Activity: The majority of the lowest orders (63%) occur at 21.
- Moderate Low Orders: 22 accounts for 34% of the lowest orders.
- Negligible Orders: 23 registers the least, at only 2%.
- No Orders: Time slots 9 and 10 do not seem to contribute to this data set.
-

Conclusion and Insights

- Key Observations: Late evening hours (21–23) are associated with the lowest order volumes, particularly at 21 and 22.
- Negligible Contribution: Time slot 23 shows almost no activity.
- Time Preference: While orders are low during these times, 21 appears to have the highest proportion within this subset.

Q3. What insights can be gathered from the bar chart showing the sales distribution across the week, and how do the sales quantities compare for each day?

Highest Sales In Week

HIGHEST SALES IN WEEK

The bar chart illustrates the total sales quantities for each day of the week, ranked from highest to lowest. The key insights are as follows:

Saturday:

This day has the highest sales, reaching close to 10,000 units. It indicates a peak in sales activity, possibly due to weekend shopping trends or promotional events.

Sunday:

Sales are slightly lower than Saturday but remain high compared to other days, reflecting strong consumer activity over the weekend.

Friday:

 Marks the beginning of a notable increase in sales leading into the weekend, showing a clear upward trend in consumer engagement.

Thursday:

Sales are moderate, with quantities slightly lower than Friday, showing mid-week stabilization.

Wednesday and Tuesday:

These days have nearly similar sales quantities, reflecting consistent but relatively lower sales activity during the early-to-mid workweek.

Monday:

Records the lowest sales quantity of the week, suggesting that consumer activity is subdued at the start of the workweek.

Conclusion:

The chart suggests a clear pattern where sales peak over the weekend, particularly on Saturday, and gradually decline through the start of the week. This trend could be influenced by consumer behavior, retail promotions, or other socioeconomic factors impacting shopping habits.

Q4. What does the bar chart reveal about the most popular types of pizzas, and how do the order quantities compare among them?

 Distribution Analysis

The bar chart presents the three most popular types of pizzas based on their order quantities. The detailed breakdown is as follows:

The Classic Deluxe Pizza:

This pizza type has the highest or nearly the highest order quantity, slightly above 2,000 units.
Its consistent demand could be attributed to its classic appeal and widespread popularity among customers.

The Barbecue Chicken Pizza:

The Barbecue Chicken Pizza shows a similar number of orders as The Classic Deluxe Pizza, also surpassing 2,000 units.
Its popularity might stem from its savory barbecue flavor, which caters to diverse tastes.

The Hawaiian Pizza:

This pizza also surpasses 2,000 orders and is on par with the other two pizzas in terms of popularity.
The Hawaiian Pizza's unique combination of sweet and savory toppings might make it a frequent choice for customers.
Comparison and Insights:

All three pizzas have remarkably similar order quantities, suggesting that customer preferences are evenly distributed among these flavors.
This parity in demand indicates that each of these pizza varieties is a top contender in satisfying diverse customer preferences.

Conclusion:

The chart highlights that The Classic Deluxe Pizza, The Barbecue Chicken Pizza, and The Hawaiian Pizza are the most ordered varieties, each exceeding 2,000 units. The close competition in order volumes suggests a well-balanced menu appeal for these options.

Q5. What does the bar chart indicate about the highest sold pizza varieties, and how do the sales volumes compare among them?

Highest Sold Pizza

The bar chart illustrates the top three highest sold pizza varieties and their respective sales volumes.
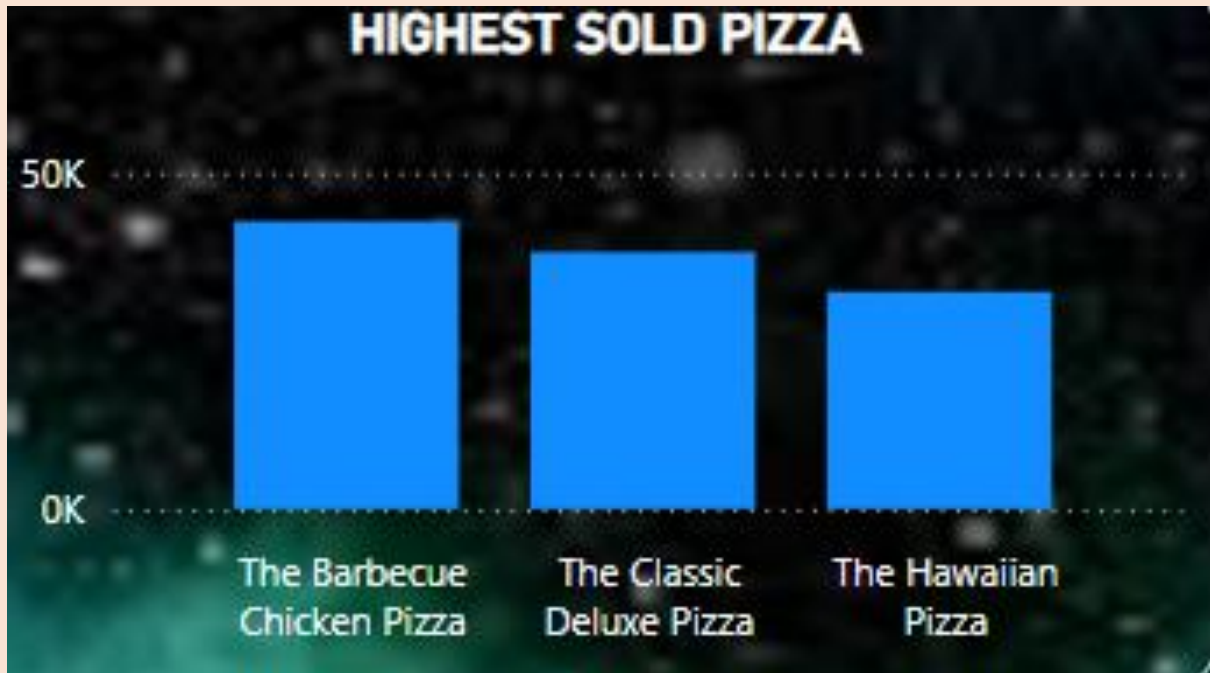
The analysis is as follows:

The Barbecue Chicken Pizza:

This pizza has the highest sales volume, approaching 50,000 units.
Its leading position reflects its broad customer appeal, likely driven by its rich barbecue flavor and unique offering.

The Classic Deluxe Pizza:

Ranked second, the Classic Deluxe Pizza shows slightly lower sales than the Barbecue Chicken Pizza but remains a strong contender, with sales exceeding 40,000 units.
Its popularity may stem from its traditional ingredients, making it a reliable choice for a wide audience.

The Hawaiian Pizza:

The Hawaiian Pizza ranks third, with sales slightly below the Classic Deluxe Pizza but still significant at approximately 40,000 units.
Its distinct sweet-and-savory taste profile continues to attract a specific segment of customers.
Comparison and Insights:

The Barbecue Chicken Pizza dominates sales, reflecting a clear preference for bold and savory flavors.
The Classic Deluxe Pizza and Hawaiian Pizza are close competitors, with their sales figures indicating strong and steady demand.
While the sales gap between the Barbecue Chicken Pizza and the others is evident, the overall sales volumes suggest that all three varieties are top-performing options on the menu.

Q6. What is the category with the highest sales?

Highest Sold By Category
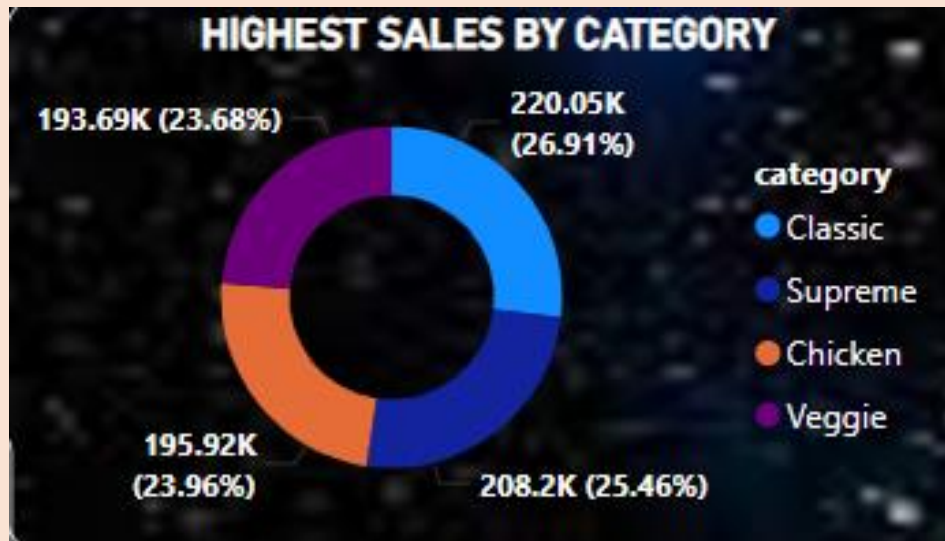
Analysis of Data

Category Sales

Classic: 220.05K (26.91%)
Supreme: 208.2K (25.46%)
Chicken: 195.92K (23.96%)
Veggie: 193.69K (23.68%)

Observations

Classic is the highest selling category with 26.91% of total sales.
Supreme comes in second with 25.46% of total sales.
Chicken and Veggie are close in sales, with 23.96% and 23.68% respectively.
Insights

Classic pizzas are the most popular, indicating a preference for traditional flavors.
Supreme pizzas are also popular, suggesting a preference for loaded pizzas with multiple toppings.
Chicken and Veggie pizzas are equally popular, indicating a significant number of customers who prefer these options.
It's worth exploring the specific types of toppings that are driving sales in each category to further understand customer preferences.

Q7. What time of day has the highest sales?

Highest Sales In A Day:

1. Evening Sales:

The Evening period has the highest sales, reaching approximately 20,000 units.
This indicates a significant spike in consumer activity during the evening, which could be attributed to people shopping after work or leisure hours.
Businesses could optimize promotions, stock levels, and staff availability during this time to maximize profits.

2. Afternoon Sales:

The Afternoon period follows closely behind the Evening, with sales just slightly below 20,000 units.
This time slot likely caters to individuals engaging in midday shopping, such as those on lunch breaks or individuals with flexible schedules.
Afternoon and Evening combined account for the majority of daily sales, emphasizing these two periods as critical for business operations.

3. Morning Sales:

Morning sales are significantly lower than those in the Afternoon and Evening, totaling around 10,000 units.
This suggests less consumer activity in the early hours of the day, potentially due to work or other morning routines taking precedence over shopping.
Businesses targeting morning shoppers may benefit from niche strategies, such as targeting early risers or offering breakfast-related products.

4. Night Sales:

The Night period has the lowest sales, below 5,000 units.
Reduced consumer activity during nighttime could be due to limited operational hours of businesses or a natural decline in shopping interest after a long day.
If applicable, late-night strategies (e.g., online sales, convenience store promotions) could be explored to boost this segment.