**Hotel Reservation Data Analysis Report**

**Overview**

The analysis of the hotel reservation dataset reveals important insights into guest preferences, booking trends, and operational factors that influence the hotel's performance. The dataset comprises various attributes related to hotel reservations, including booking details, guest demographics, stay characteristics, and financial information. This report summarizes key findings from the analysis, highlighting significant patterns and trends.

**Key Findings**

**Total Reservations and Popular Choices**

1. Total Reservations: The dataset contains a total of 700 unique reservations.

2. Most Popular Meal Plan: The most frequently chosen meal plan among guests is Meal Plan 1.

3. Most Common Room Type: Room Type 1 is the most commonly booked room type.

4. Most Common Market Segment: The majority of reservations come from the Online market segment.

**Financial Insights**

1. Average Price for Reservations Involving Children: The average price per room for reservations that include children is $144.56.

2. Room Type for Reservations with Children: Room Type 1 is the most popular room type for reservations involving children, with an average price of $123.12.

3. Highest Average Price by Market Segment: The Online market segment generates the highest average price per room.

**Booking Patterns and Trends**

1. Reservations by Year:

- 2017: 123 reservations

- 2018: 577 reservations

2. Monthly Booking Trends:

- The peak booking months in 2018 were June (84 reservations), April (67 reservations), and October (63 reservations).

- The highest number of reservations in 2017 occurred in October (40 reservations).

3. Reservations on Weekends: A total of 383 reservations include at least one weekend night.

**Stay Characteristics**

1. Average Nights Spent by Room Type:

- Room Type 1: Average of 0.79 weekend nights and 2.09 weekday nights.

- Room Type 4: Average of 1.09 weekend nights and 2.71 weekday nights.

2. Average Number of Weekend Nights for Reservations Involving Children: The average number of weekend nights for reservations that include children is 1.

**Lead Time**

1. Lead Time:

- The maximum lead time for reservations is 443 days.

- The minimum lead time is 0 days.

**Booking Status**

1. Booking Status:

- No reservations were marked with a booking status of "Confirmed."

- The total number of adults across all reservations is 1,316.

- The total number of children across all reservations is 69.

**Conclusion**

The analysis of the hotel reservation dataset provides valuable insights that can inform strategic decisions for the hotel. Understanding guest preferences, such as the popularity of Meal Plan 1 and Room Type 1, helps in tailoring services and offers. Recognizing booking patterns and peak times can assist in resource planning and marketing efforts. Financial insights, including the average prices associated with different guest demographics and market segments, are crucial for revenue management. Overall, these findings support the hotel's efforts to enhance guest experiences and optimize operational efficiency.