

**PROJECT TITLE:
ENHANCING HOTEL
REVENUE AND
BOOKING STRATEGIES**

AGENDA:

- Project Overview
- Goal
- Data Modeling
- Dashboard Showcase
- Key Insights
- Recommendations

PROJECT OVERVIEW

This project aims to analyze hotel revenue and booking patterns using a dataset containing information on bookings, cancellations, guest details, and revenue. The analysis provides insights into the performance of the hotel industry, identifying trends and patterns that can help stakeholders make data-driven decisions. The dataset includes attributes such as booking dates, guest demographics, booking channels, and financial metrics.

GOAL

- Analyze market trends and performance of hotel industry using data modeling techniques.
- Use Power Query to clean and preprocess historical data effectively.
- Develop an interactive dashboard to visualize key insights and trends.
- Identify seasonal booking trends to optimize marketing efforts.
- Implement data-driven decisions to maximize revenue.

DATA MODELING

- Load the data from various sources into Power BI using the built-in data connectors.
- Use Power Query Editor to clean the data by removing duplicates and handling missing values.
- Use Data Analysis Expressions (DAX) to create calculated columns that derive new data from existing columns.
- Define measures to perform calculations on aggregated data, such as sums, averages, and ratios, to facilitate data analysis.

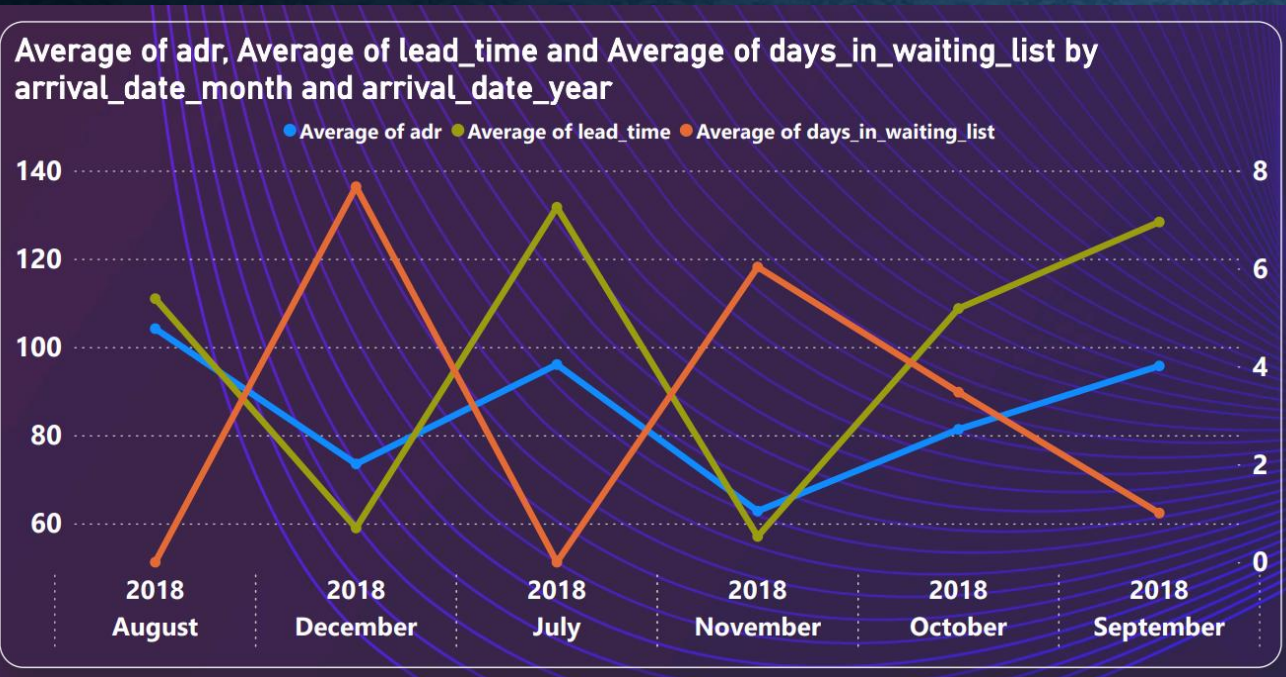
DASHBOARD SHOWCASE

1. PERFORMANCE MATRIX

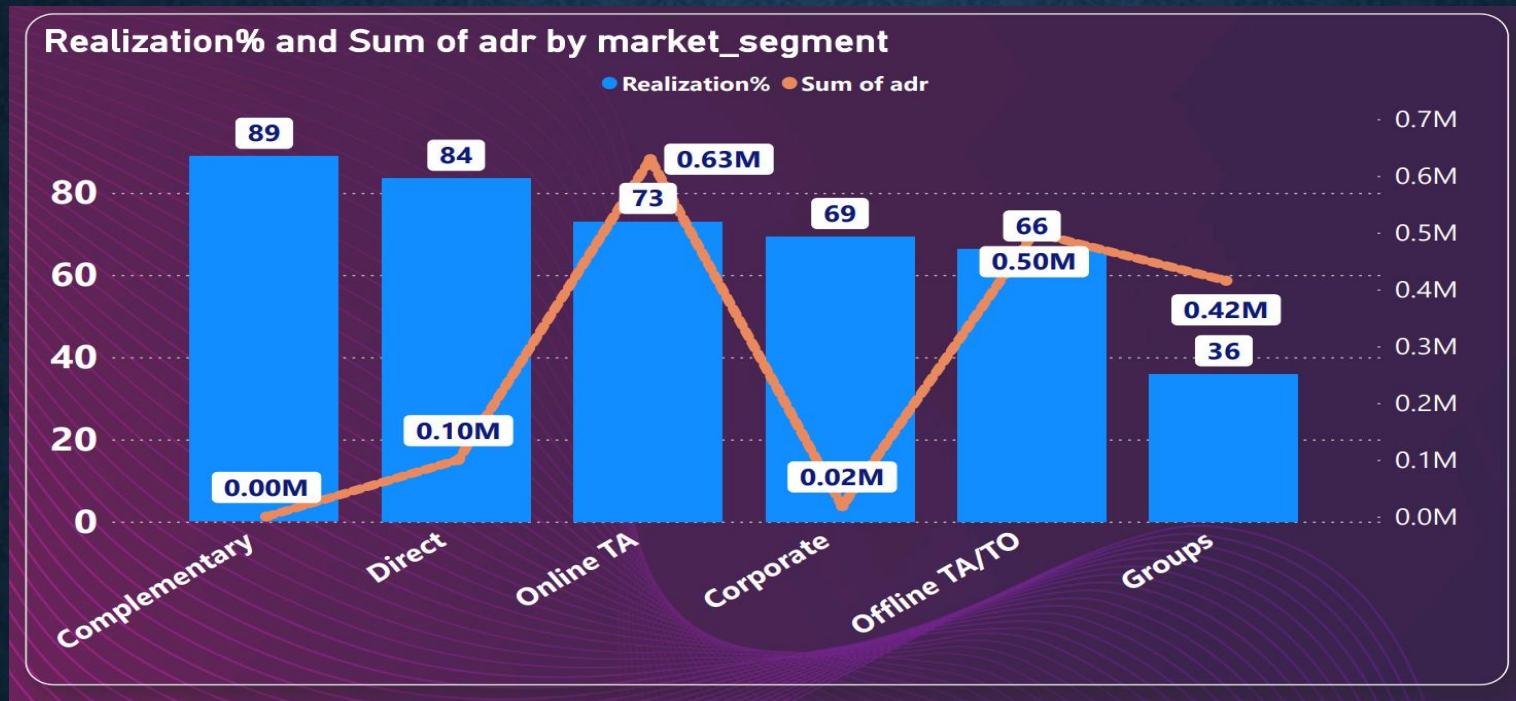
hotel	Revenue	HotelADR	DBRN	Realization%	Cancellation%
City Hotel	5,93,478.37	86.29	69.54	53.73	46.27
Resort Hotel	4,34,840.40	91.42	36.62	73.20	26.80
Total	10,28,318.77	88.06	106.16	60.45	39.55

- The table presents a comparison of financial and operational metrics between a City Hotel and a Resort Hotel. It includes data on total revenue, average daily rate (ADR), daily booked room night (DBRN), realization percentage, and cancellation percentage for each hotel. The overall totals for these metrics are provided, highlighting the combined performance of both hotels and offering insights into their operational efficiency and financial health.

2. LINE GRAPH(ADR, LEAD TIME, DAYS IN WAITING LIST)

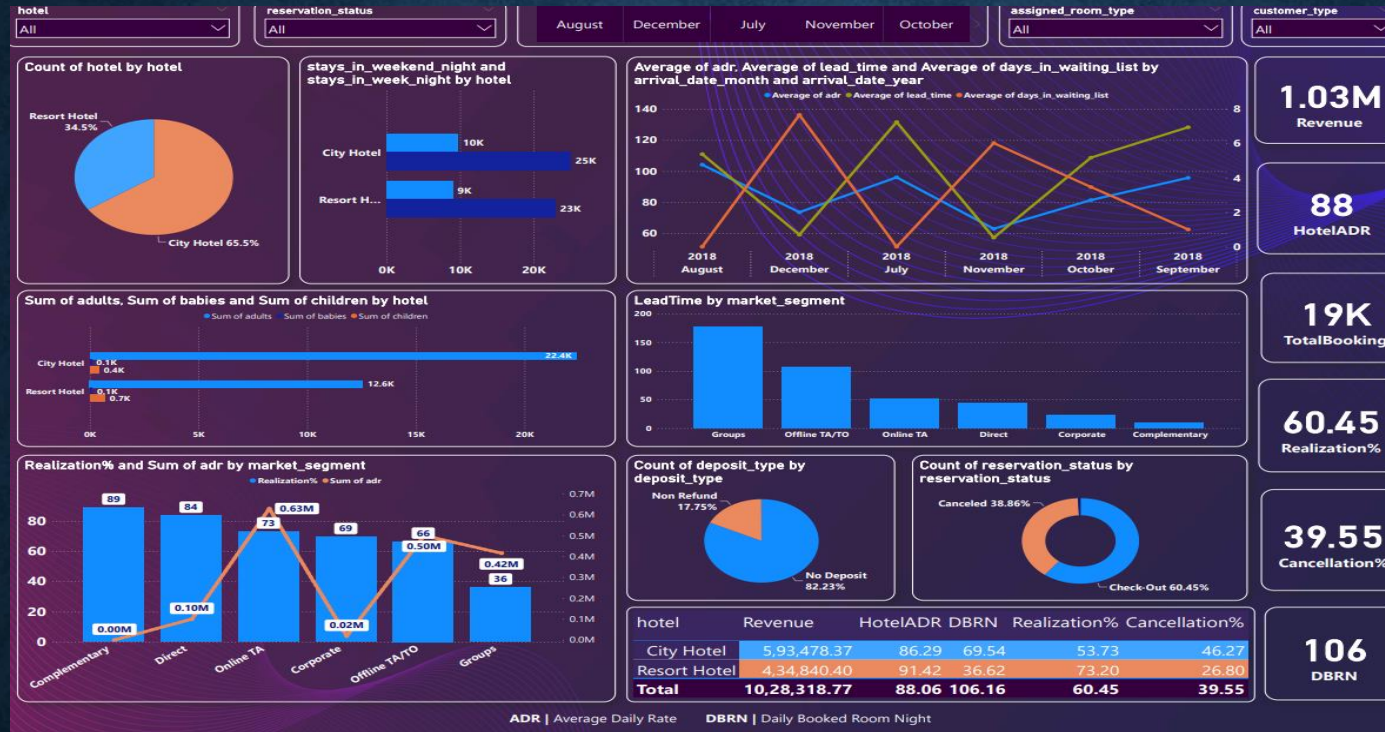


- Line graph depicting trends in three key performance metrics for a set of properties over a period of months. These metrics include:
- ADR (Average Daily Rate): Shown in blue.
- Lead Time: Shown in yellow.
- Days in waiting list: Shown in orange.
- These three lines are correlated in a way that changes in one metric can affect the others. For instance, when the ADR is high, fewer people might book, leading to shorter waiting lists. Conversely, when the lead time is longer, it often indicates high demand, which can drive up the ADR as the hotel can afford to charge more due to increased bookings in advance. Finally, the days in the waiting list reflect how many bookings are pending confirmation, which can increase when ADR is low and demand is high. These metrics interact to show the balance of supply and demand in the hotel's booking and pricing strategies.



REALIZATION % AND ADR BY MARKET SEGMENT:
THIS BAR AND LINE GRAPH SHOWS THE REALIZATION PERCENTAGE AND THE SUM OF ADR (AVERAGE DAILY RATE) BY DIFFERENT MARKET SEGMENTS. IN THIS GRAPH, THE BLUE BARS REPRESENT THE REALIZATION PERCENTAGE FOR EACH MARKET SEGMENT, WHILE THE ORANGE LINE REPRESENTS THE SUM OF ADR IN MILLIONS. THE HEIGHT OF THE BARS INDICATES HOW SUCCESSFUL EACH SEGMENT IS IN TERMS OF REALIZATION PERCENTAGE, WHILE THE LINE SHOWS THE CORRESPONDING REVENUE (ADR) GENERATED BY EACH SEGMENT.

5. COMPLETE DASHBOARD:



This dashboard provides a comprehensive analysis of hotel performance metrics. It compares City Hotel and Resort Hotel across various dimensions such as revenue, booking counts, and ADR (Average Daily Rate). The data highlights the realization percentages and ADR sums by market segments, with insights into guest demographics and booking behaviors. It also shows lead times by market segment, deposit types, and reservation statuses, emphasizing the significant differences in guest profiles and booking patterns between the two hotel types. Key metrics like total revenue, total bookings, and overall realization and cancellation rates are summarized for a clear overview.

KEY INSIGHTS

- **Hotel Comparison:** City Hotel accounts for 65.5% of total bookings, while Resort Hotel accounts for 34.5%.
- **Revenue and ADR:**
 1. The total revenue generated is 10.28M, with City Hotel contributing more revenue (5.93M) compared to Resort Hotel (4.34M).
 2. The overall ADR (Average Daily Rate) is 88, with City Hotel at 86.29 and Resort Hotel at 91.42.
- **Realization and Cancellation Rates:**
 1. The overall realization percentage is 60.45%, while the cancellation rate is 39.55%.
 2. City Hotel has a realization rate of 53.73% and a cancellation rate of 46.27%, whereas Resort Hotel has a higher realization rate of 73.20% and a lower cancellation rate of 26.80%.
- **Market Segment Analysis:** The "Online TA" segment shows the highest ADR (0.63M) with a realization percentage of 73%.
- **Guest Demographics:** City Hotel hosts significantly more adults (224K) compared to Resort Hotel (12.6K), with similar proportions of babies and children in both hotels.
- **Booking Patterns:**
 1. The lead time is longest for the "Groups" market segment.
 2. Most reservations (82.23%) were made without deposits, while non-refundable deposits accounted for 17.75% of bookings.
- **Reservation Status:** A large portion of bookings (38.86%) were canceled, while 60.45% resulted in check-outs.
- **Stay Patterns:** Stays at City Hotel are more common on weekdays (25K) compared to weekends (10K), while Resort Hotel has more balanced stays between weekdays (23K) and weekends (9K).

RECOMMENDATIONS

- Increase marketing efforts and incentives for direct bookings to reduce dependence on online travel agents (OTAs) and improve profit margins.
- Analyze pricing strategies to align ADR with realization rates. Consider dynamic pricing models to maximize revenue, particularly for high-performing segments like "Online TA."
- Review and potentially tighten cancellation policies to reduce the high cancellation rate. Offering flexible yet firm cancellation options might balance customer satisfaction and revenue stability.
- Focus on promoting group bookings, which have longer lead times but can significantly boost overall occupancy and revenue. Create attractive packages for group travelers.
- Enhance the guest experience in City Hotels to balance the high volume of stays with higher satisfaction and ADR. Consider additional services or amenities that can justify a higher ADR.
- Capitalize on segments with high realization percentages like "Complementary" by developing upsell strategies to convert high occupancy into revenue generation.
- Since City Hotel has a high number of adult guests, consider expanding family-friendly services and promotions to attract more families, potentially balancing the guest demographic.
- For City Hotels, create special promotions to attract more weekend stays, balancing the current skew towards weekday bookings.

THANK YOU!