



# Project Title:

## Revenue Optimization Strategies for Luxury Hotels Using Data Analysis

# Agenda:

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



# Project Overview

The objective of this project is to leverage business and data intelligence to analyze historical data from a chain of five-star hotels in India. Through this analysis, we aim to understand current market trends, competitive dynamics, and areas of improvement in decision-making processes. By extracting actionable insights from the data, we seek to enhance revenue management strategies and develop initiatives to regain revenue in the business hotels category.



# Goal

- Analyze market trends and competition 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 opportunities to enhance revenue management strategies.
- Implement data-driven decisions to regain market share.

# 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.
- Define relationships between tables using primary and foreign keys to create a coherent data model.
- 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.



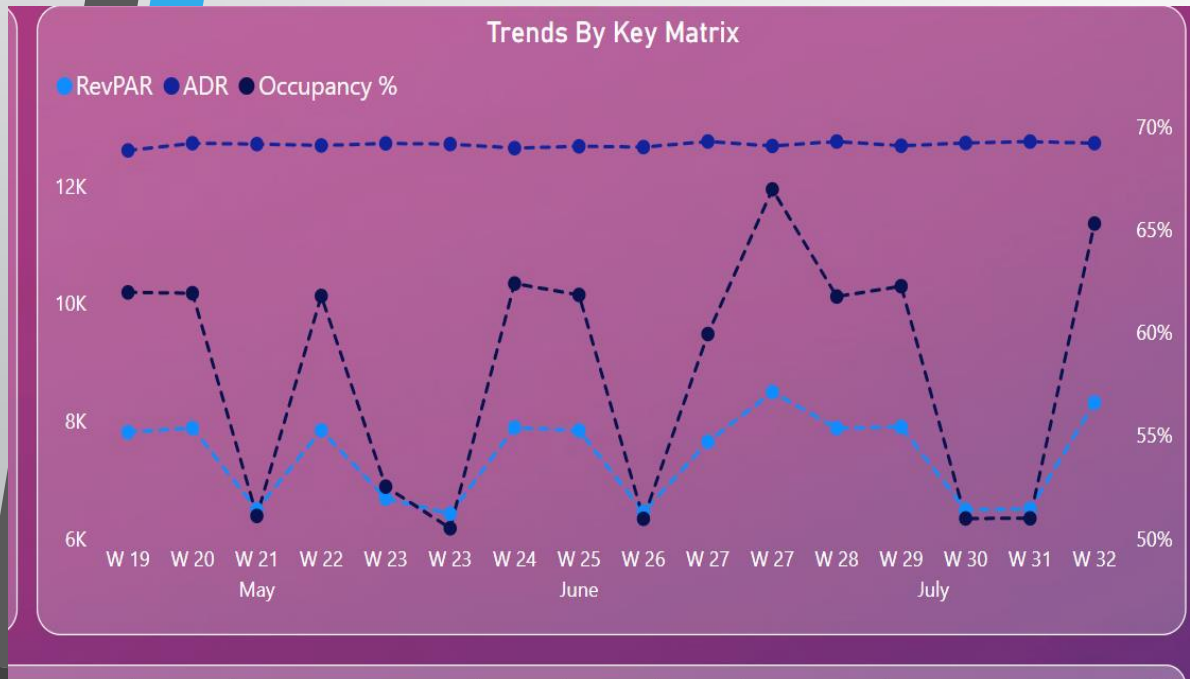
# Dashboard Showcase

# 1. Performance Matrix

property_id	property_name	city	Revenue	RevPAR	Occupancy %	ADR	DSRN	DBRN	DURN	Realization %	Cancellation %	Avg rating
16560	Atliq City	Delhi	54M	6,281	53.61%	11,714	95	51	36	71.20%	24.03%	3.0
18560	Atliq City	Hyderabad	60M	6,068	66.07%	9,185	109	72	51	70.91%	24.13%	4.2
17559	Atliq Exotica	Mumbai	93M	10,107	66.09%	15,293	101	67	47	70.81%	24.04%	4.3
19559	Atliq Exotica	Bangalore	59M	6,851	53.73%	12,751	95	51	36	70.76%	24.54%	3.0
17563	Atliq Palace	Mumbai	100M	10,592	66.13%	16,016	104	69	49	70.67%	24.38%	4.2
17564	Atliq Seasons	Mumbai	65M	7,397	44.57%	16,597	97	43	31	70.59%	24.81%	2.3
18559	Atliq Exotica	Hyderabad	47M	4,061	44.57%	9,111	128	57	40	70.57%	24.33%	2.3
19562	Atliq Bay	Bangalore	81M	9,312	65.66%	14,183	96	63	44	70.47%	24.29%	4.2
16559	Atliq Exotica	Mumbai	117M	10,629	65.85%	16,141	121	80	56	70.39%	24.63%	4.3
18561	Atliq Blu	Hyderabad	55M	5,679	65.46%	8,676	107	70	49	70.36%	24.27%	4.2
18562	Atliq Bay	Hyderabad	68M	6,216	65.81%	9,446	121	80	56	70.20%	24.68%	4.3
17561	Atliq Blu	Mumbai	73M	9,447	66.19%	14,271	85	56	39	70.14%	24.41%	4.3
19558	Atliq Grands	Bangalore	54M	5,527	44.33%	12,468	107	47	33	70.06%	24.49%	2.3
16563	Atliq Palace	Delhi	88M	8,269	66.25%	12,480	117	78	54	70.02%	25.19%	4.2
16558	Atliq Grands	Delhi	36M	7,525	65.81%	11,436	52	34	24	70.01%	25.08%	4.2
17558	Atliq Grands	Mumbai	74M	7,953	53.60%	14,839	102	55	38	69.91%	25.67%	3.0
16561	Atliq Blu	Delhi	57M	8,612	65.66%	13,115	73	48	33	69.85%	25.56%	4.2
19561	Atliq Blu	Bangalore	72M	6,774	53.25%	12,722	117	62	43	69.80%	24.64%	3.0
18558	Atliq Grands	Hyderabad	46M	5,514	53.38%	10,331	91	49	34	69.73%	25.07%	3.0
17562	Atliq Bay	Mumbai	51M	6,803	44.86%	15,167	83	37	26	69.60%	25.44%	2.3
18563	Atliq Palace	Hyderabad	44M	5,014	52.89%	9,480	97	51	36	69.57%	26.00%	3.0
17560	Atliq City	Mumbai	87M	7,763	53.07%	14,629	123	65	45	69.51%	25.12%	3.0
19563	Atliq Palace	Bangalore	68M	6,768	53.42%	12,670	110	59	41	69.50%	25.36%	3.0
16562	Atliq Bay	Delhi	56M	6,254	53.40%	11,712	98	52	36	69.34%	25.24%	3.0
19560	Atliq City	Bangalore	81M	8,965	65.53%	13,680	99	65	45	69.00%	26.46%	4.2
Total			1688M	7,337	57.79%	12,696	2,528	1,461	1,025	70.14%	24.84%	3.6

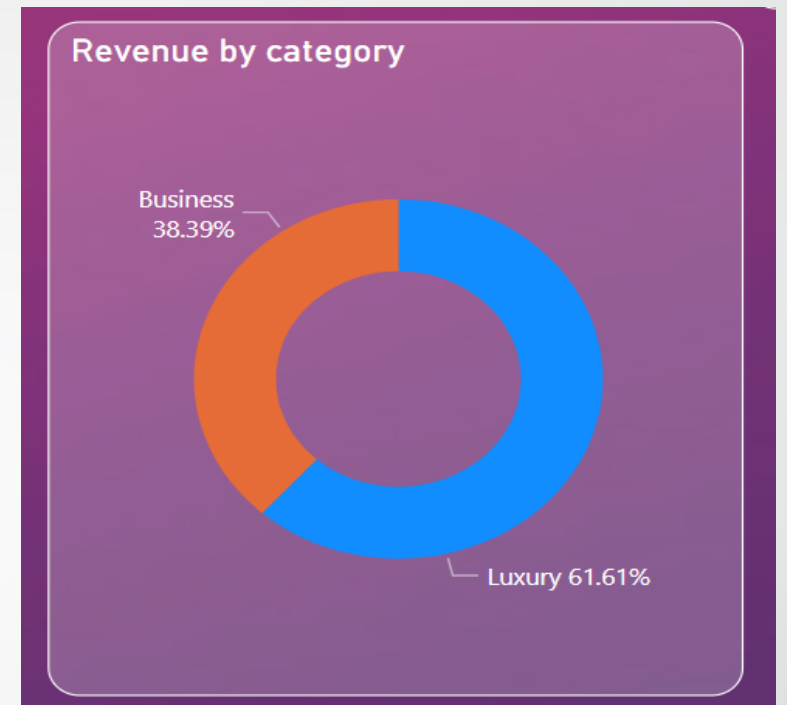
- Table summarizing the performance metrics of various properties across different cities. It includes details such as revenue, occupancy rates, average daily rate (ADR), revenue per available room (RevPAR), and daily room metrics (DBRN Daily Booked Room Nights | DSRN Daily Sellable Room Nights | DURN Daily Utilized Room Nights). Additionally, it shows the realization percentage, cancellation rates, and average customer ratings for each property. This data provides insights into the financial performance, room utilization, and customer satisfaction levels of each property, helping in performance assessment and strategic decision-making.

## 2. Line Graph(RevPAR, ADR, Occupancy %)



- Line graph depicting trends in three key performance metrics for a set of properties over a period of weeks (W19 to W32). These metrics include:
- RevPAR (Revenue Per Available Room): Shown in light blue.
- ADR (Average Daily Rate): Shown in dark blue.
- Occupancy %: Shown in black.
- The graph aims to illustrate the weekly variations and trends in these metrics, which are crucial for assessing the financial health, pricing strategy, and room utilization efficiency of the properties. This data helps in understanding the performance fluctuations and identifying patterns or anomalies in the revenue and occupancy rates over the specified time period.





### 3. bar and line graph:

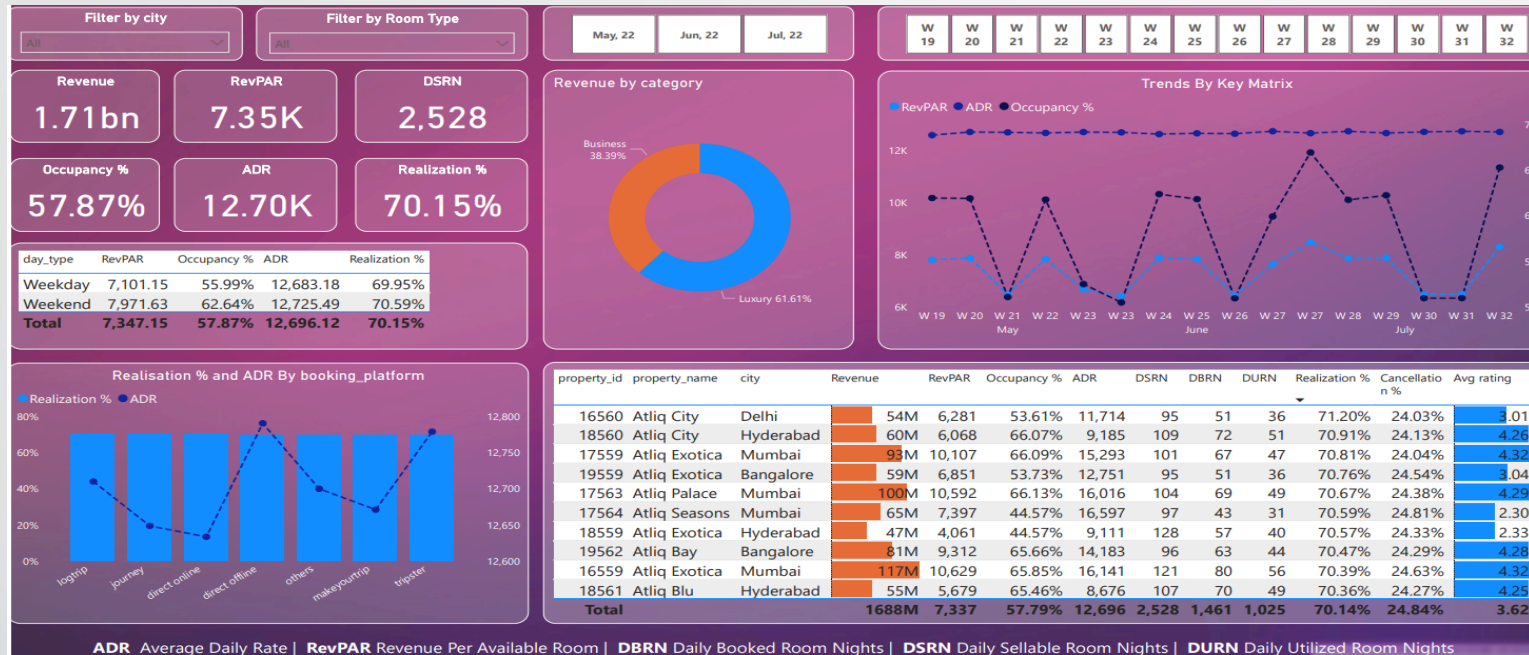
#### a. Realization % and ADR by Booking Platform:

A bar and line chart that shows the realization percentage (in blue bars) and Average Daily Rate (ADR, in dark blue line) across different booking platforms, including logtrip, journey, direct online, direct offline, others, makeyourtrip, and tripster. This chart aims to compare how each platform performs in terms of revenue realization and average pricing.

#### b. Revenue by Category:

A pie chart depicting the distribution of revenue between two categories: Business and Luxury. The chart shows that Luxury contributes 61.61% of the revenue, while Business accounts for 38.39%.

# 5. Complete Dashboard:



- The dashboard provides a comprehensive analysis of luxury hotels, highlighting overall financial performance and key metrics. It reveals trends in revenue, occupancy, and average daily rates over time. The data shows variations in performance by day type and booking platform. It also categorizes revenue into business and luxury segments, offering insights into customer preferences. Overall, the dashboard aids in strategic decision-making and performance assessment for luxury hotels.

# Key Insights:

- Highest Revenue: "Atliq Exotica, Mumbai" has the highest revenue at 117M.
- Lowest Revenue: "Atliq City, Delhi" has the lowest revenue at 8M.
- Highest Occupancy: "Atliq Bay, Mumbai" has the highest occupancy rate at 66.19%.
- Highest ADR: "Atliq Exotica, Mumbai" has the highest average daily rate (ADR) at 19,186.
- Lowest ADR: "Atliq City, Delhi" has the lowest ADR at 8,965.
- Highest RevPAR: "Atliq Exotica, Mumbai" has the highest revenue per available room (RevPAR) at 10,629.
- Realization Rate: The average realization rate is 70.15%, with the highest at "Atliq City, Delhi" (71.20%).
- Highest Cancellation Rate: "Atliq Grands, Bangalore" has the highest cancellation rate at 25.56%.
- Booking Platform Performance: "Direct offline" booking platforms have the highest realization percentage among all platforms.
- Revenue by Category: Luxury category contributes 61.61% to the overall revenue, while the business category contributes 38.39%.

# Strategies to Regain Revenue and Market Share:

- Leverage Top Performers: Replicate successful strategies from "Atliq Exotica, Mumbai" across other properties to boost revenue.
- Target Low Revenue Properties: Implement targeted marketing and promotional campaigns to increase revenue for properties like "Atliq City, Delhi".
- Boost Occupancy Rates: Use promotions and discounts to increase occupancy rates, especially for properties with lower rates.
- Optimize Pricing: Review and adjust pricing strategies to be more competitive, especially for properties with lower ADR.
- Enhance Direct Bookings: Encourage more direct offline bookings, as these have higher realization rates.
- Focus on High ADR Properties: Highlight and promote high ADR properties like "Atliq Exotica, Mumbai" to attract higher-paying customers.
- Reduce Cancellations: Implement stricter cancellation policies and offer flexible booking options to reduce the high cancellation rates seen in properties like "Atliq Grands, Bangalore".
- Weekend Promotions: Since weekends have higher occupancy and RevPAR, create special weekend packages to attract more guests.
- Luxury Segment Focus: Given that luxury contributes a significant portion of revenue, enhance luxury offerings and marketing to attract this segment.
- Customer Experience: Improve the overall guest experience to boost ratings, which in turn can lead to higher occupancy and repeat business.



**Thank You!**