ATLIQ HOTELS DATA ANALYSIS PROJECT (HOSPITALITY DOMAIN)

Python pandas

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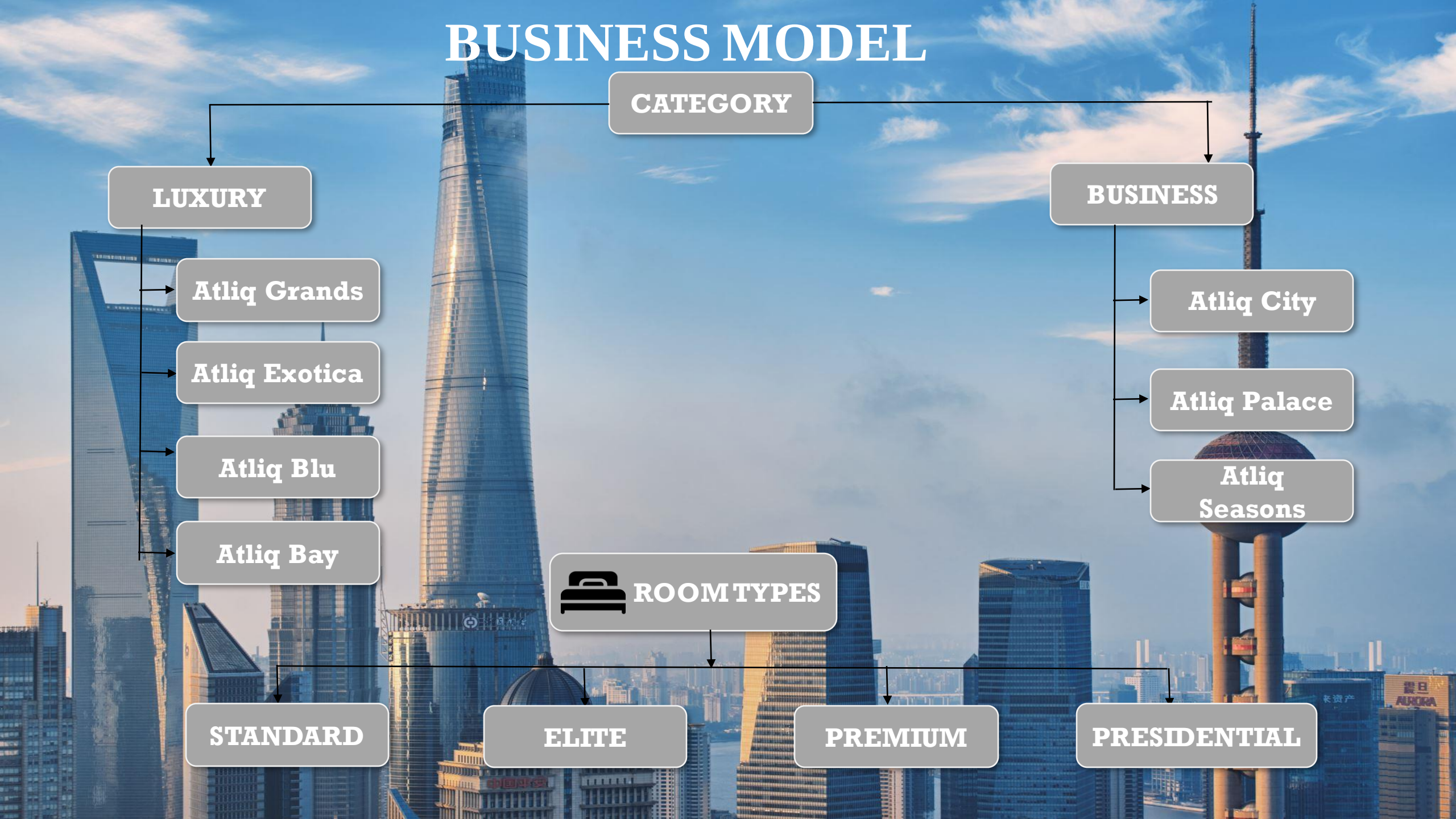
OVERVIEW OF ATLIQ GRANDS

- AtliQ Grands is a reputable chain of upscale hotels catering to both luxury and business travelers, with locations in Bengaluru, Hyderabad, Delhi, and Mumbai in India.
- Atliq grands has been a key player in the hospitality industry for the past twenty years

BUSINESS MODEL



PROBLEM STATEMENT

- Atliq Grands team have observed a decrease in both market share and revenue within the luxury and business hotels sector, attributed to changes in competition and management strategies. To reverse this trend, the managing director has decided to use "Business and Data Intelligence" strategies.
- However, AtliQ lacks an internal team capable of analyzing their data for insights. Therefore, their revenue management team is considering hiring an external service provider to extract valuable insights from their historical data.

OBJECTIVE

- The goal is to figure out why and where there's been a drop in market share and revenue for the Atliq hotel chain
- We'll delve into data to uncover insights into what's behind the decline and devise strategies to reverse the trend

PROJECT STEPS

- Data Understanding & exploration
- Data Cleaning
- Data Transformation
- Insights Generation

DATA UNDERSTANDING & EXPLORATION

In Datasets we received 5 csv files

- dim_date.csv: Contains Date, month& year, week no., type of day (weekend or weekday)
- dim_hotels.csv: Contains hotel category a further subcategory in different cities
- dim_rooms.csv: Contains room class
- fact_aggregated_bookings.csv: contains successful bookings against capacity
- fact_bookings.csv: contains overall bookings

DATA CLEANING

Invalid guest records with negative values were removed, ensuring data accuracy and removing potential errors

Removed outliers from revenue generated and revenue realized columns with values derived from functions such as mean and std deviation

DATA TRANSFORMATION

- **Data Calculation:** A new column has been added to derive occupancy percentage
- **Occupancy percentage** is a key performance indicator in Hospitality domain. It reflects the utilization of hotel assets aiding in strategic decisions such as Strategic pricing, Offers and resource optimization.

INSIGHTS

1. What is an average occupancy rate in each of the room categories?

Roomclass	
Elite	58.01
Premium	58.02
Presidential	59.27
Standard	57.88

2. Print average occupancy rate per city

City	
Bangalore	56.33
Delhi	61.50
Hyderabad	58.12
Mumbai	57.90

INSIGHTS

3. When was the occupancy better? Weekday or Weekend?

Day type	
weekday	50.88
weekend	72.34

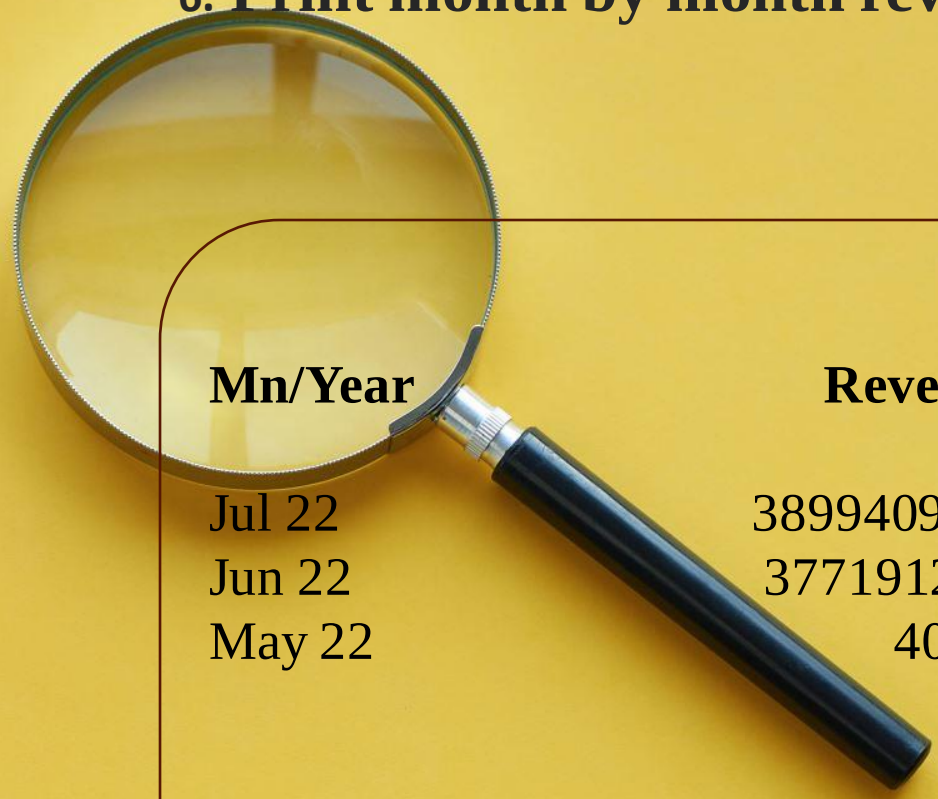
4: In the month of June, what is the occupancy for different cities

City	
Delhi	62.47
Hyderabad	58.46
Mumbai	58.38
Bangalore	56.44

5: Print revenue realized per city

City	Revenue INR
Bangalore	420383550
Delhi	294404488
Hyderabad	325179310
Mumbai	668569251

6. Print month by month revenue



Mn/Year	Revenue INR
Jul 22	389940912
Jun 22	377191229
May 22	408375641

RECOMMENDATIONS

- 1. **Weekdays Focus**: Target weekdays marketing to balance occupancy rate.
- 2. **City Strategies**: Invest in high-demand cities like Delhi.
- 3. **Seasonal Adjustments**: Align room tariff / pricing with seasonal demand.
- 4. **Room Optimization**: Adjust pricing for premium rooms.
- 5. **Maximize City Revenue**: Offer additional services, collaborate locally.
- 6. **Monthly Revenue Analysis**: Monitor trends for informed decisions.


Thank You