

A person is seen from behind, standing on a mountain peak and looking out over a vast, hazy landscape under a warm, golden sky. The person is wearing a dark jacket and has their hands in their pockets. The landscape features rolling hills and mountains in the distance, with a thin layer of mist or clouds near the base of the mountains. The overall mood is contemplative and serene.

ATLIQ HOSPITALITY ANALYSIS

UNIFIED MENTOR INTERNSHIP – PROJECT 3

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INTRODUCTION

The **hospitality analysis** project aims to provide key insights and visualizations for a hotel management scenario. Leveraging data from various dimensions such as **bookings, hotels, and rooms**, the analysis covers essential aspects like revenue, occupancy, and customer ratings.

Through interactive widgets, the project facilitates **dynamic filtering** by properties, city, status, platform, month, and week. Visualizations include **trends by week, occupancy by day type, and booking percentage** by platform.

These insights empower hospitality professionals to make informed decisions and enhance revenue management strategies for their hotels. The project combines data analytics with visualization techniques to offer a comprehensive understanding of the business performance in the hospitality industry.

PROBLEM STATEMENT

Here's a concise problem statement for the hospitality analysis project:

- In response to declining market share and revenue in the luxury/business hotels category, Atliq Grands, a prominent hotel chain, seeks to leverage Business and Data Intelligence for strategic decision-making.
- With a lack of an in-house data analytics team, the **objective** is to engage a third-party service provider to **analyze historical data**.
- The project focuses on **filtering insights** by properties, city, status, platform, month, and week. Key metrics such as revenue, occupancy percentage, and average ratings are to be visualized, offering trends by week, occupancy by day type, and booking percentage by platform.

This initiative aims to empower Atliq Grands with actionable insights to regain market share and revenue in the highly competitive hospitality industry."

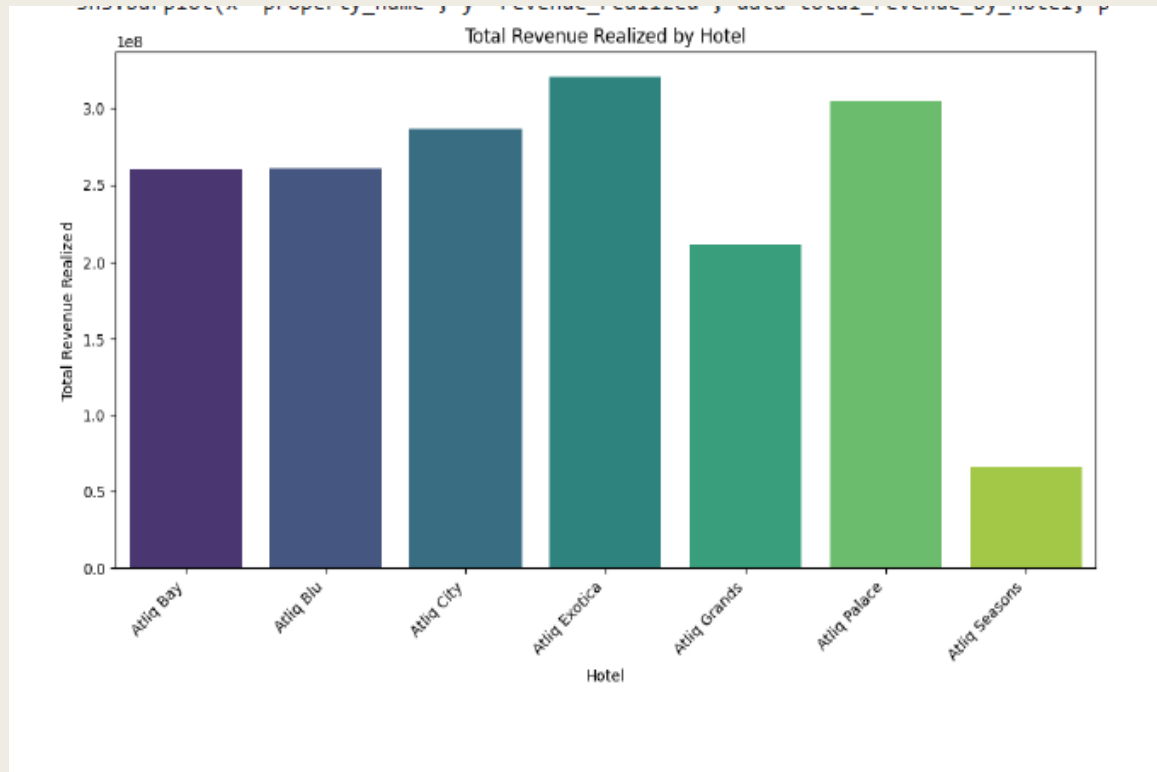
METHODOLOGY USED

The methodology employed for the hospitality analysis project follows

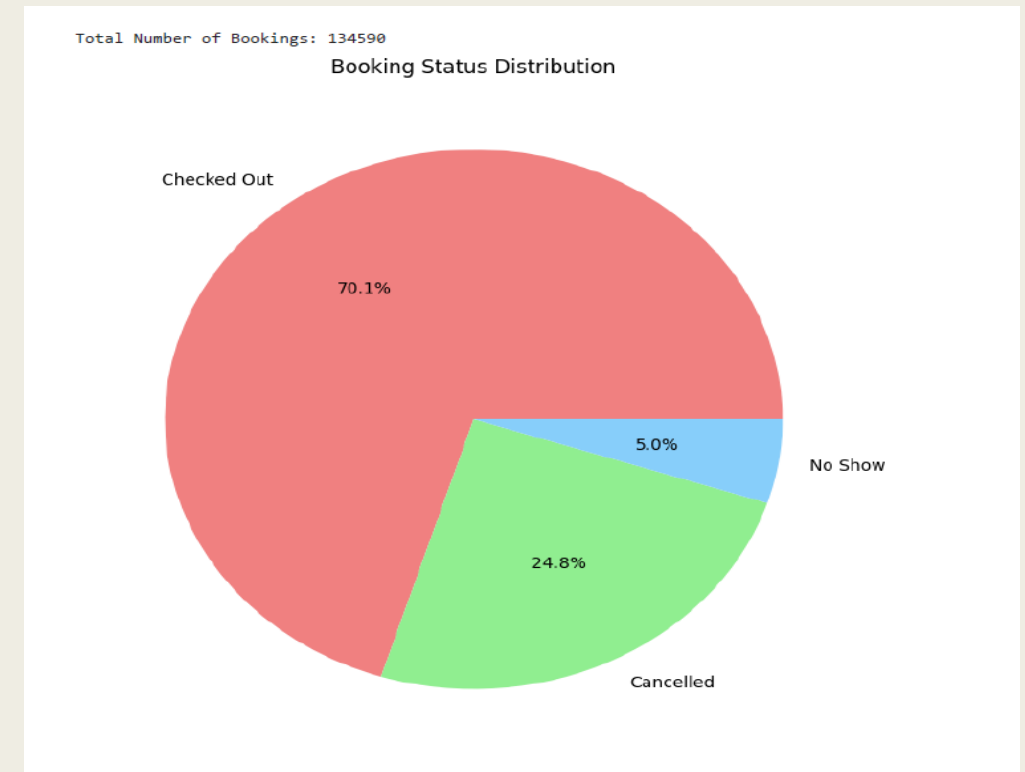
- ❖ a systematic approach to harness valuable insights from the provided datasets. Commencing with meticulous data collection from diverse dimensions including date, hotels, rooms, and bookings, the focus shifts to thorough exploration and **cleaning processes, addressing missing values and ensuring data quality.**
- ❖ Interactive widgets are developed for **dynamic filtering**, enabling users to refine data based on properties, city, status, platform, month, and week.
- ❖ Calculations are then performed to derive key metrics such as **total revenue, occupancy percentage, and average ratings.**
- ❖ Subsequently, **data visualization techniques**, including line plots, bar charts, and pie charts, are employed to present trends by week, occupancy by day type, and booking percentage by platform. The methodology culminates in actionable insights and recommendations, documented for stakeholders, to inform strategic decision-making in the highly competitive hospitality industry.

INFERENCES

Sum of revenue realized

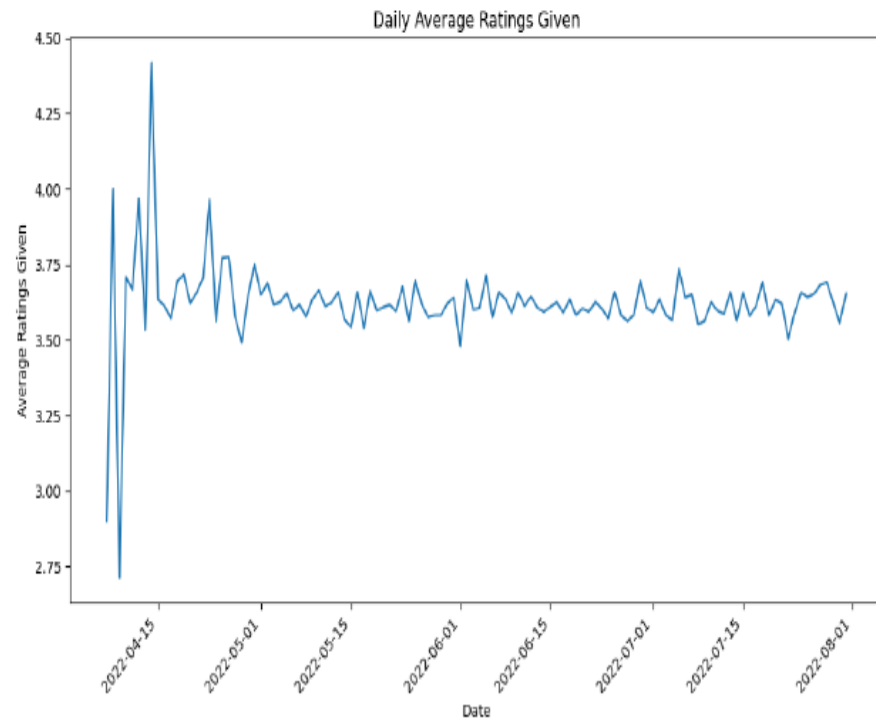


Booking Status Distribution



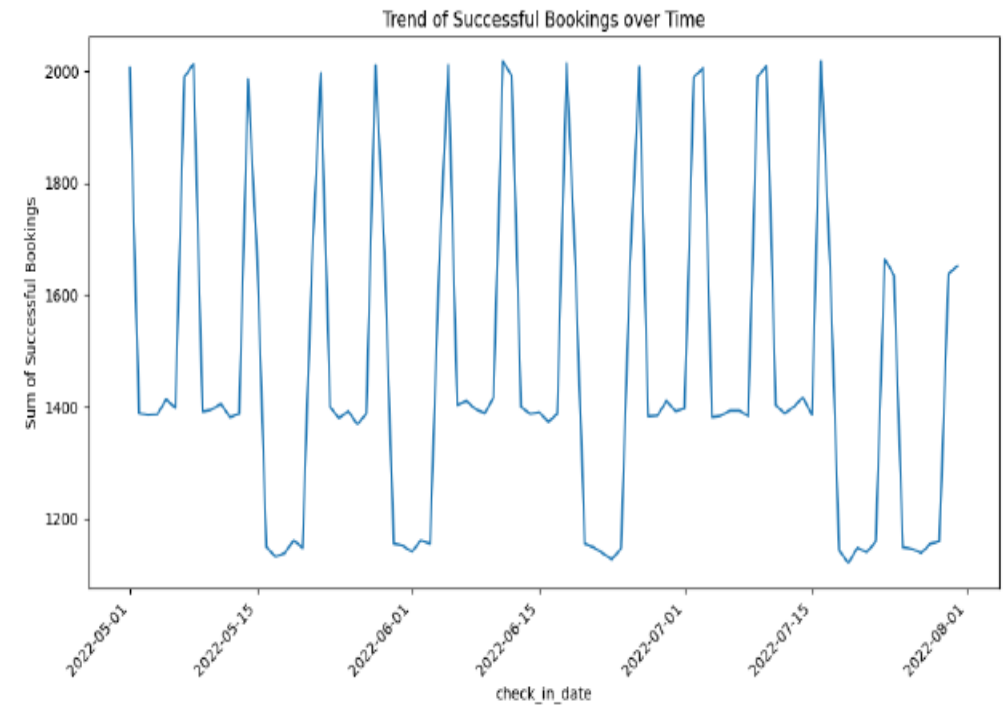
AVERAGE RATINGS

Average Ratings Given: 3.619003934160154

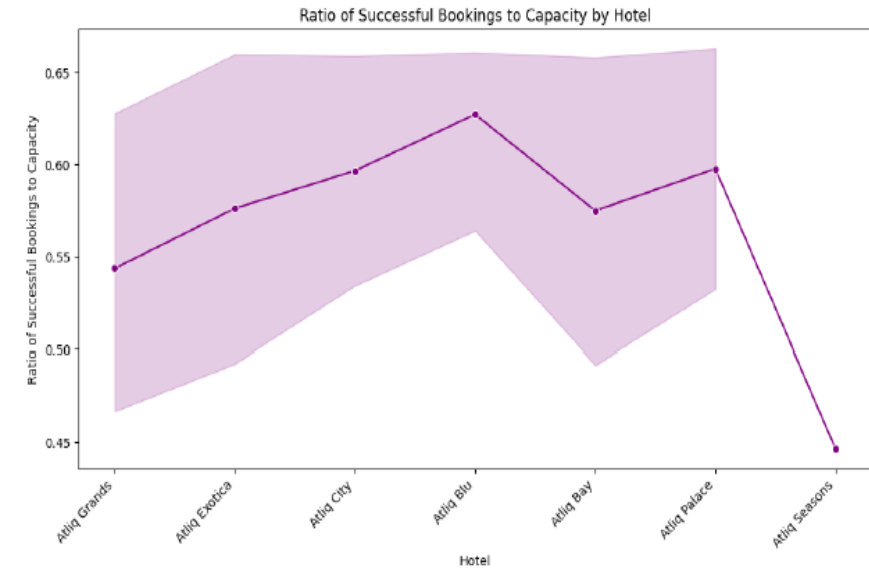


TOTAL SUCCESSFUL BOOKING

Total Successful Bookings: 134590



RATIO OF SUCCESSFUL BOOKINGS



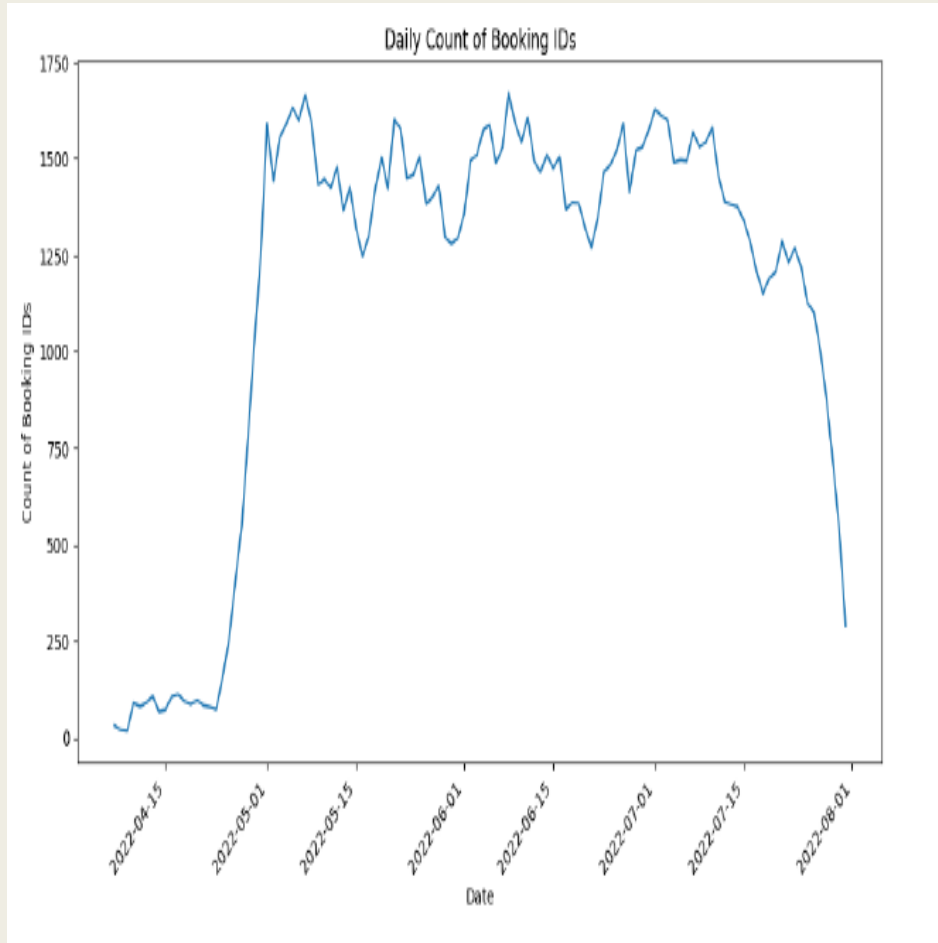
COUNT OF CANCELLED BOOKING

Count of Cancelled Bookings: 33420

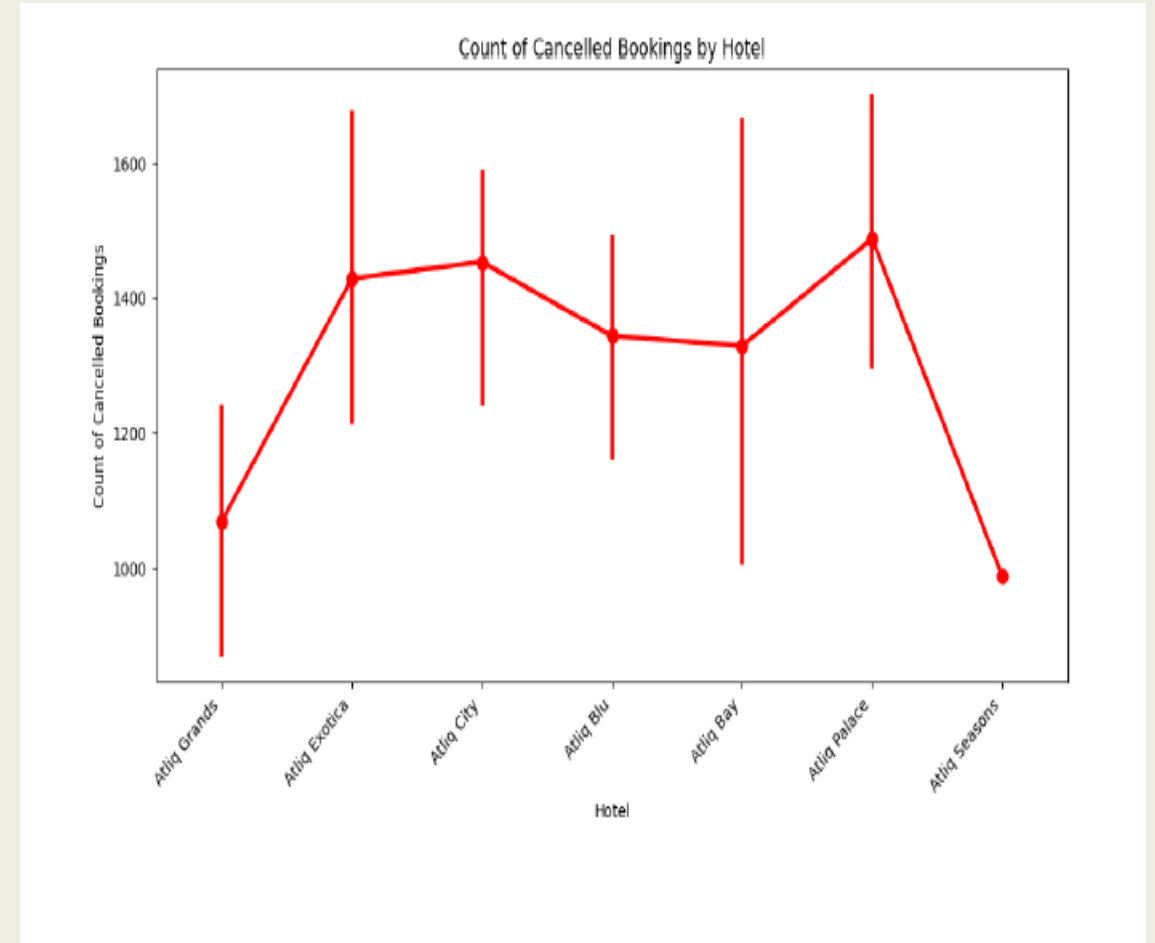
RATIO OF TOTAL CANCLLED BOOKING

Ratio of Total Cancelled Bookings to Total Bookings: 0.24830968125417935

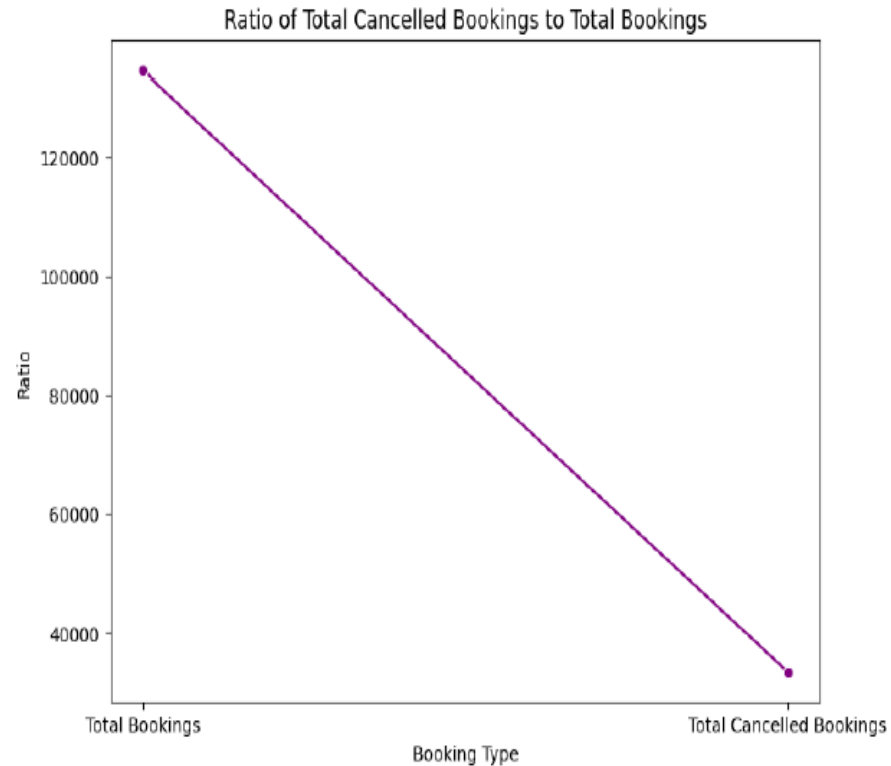
DAILY COUNT OF BOOKING IDS



COUNT OF CANCELLED BOOKINGS



RATIO OF TOTAL CANCELLED BOOKINGS



FILTERS BY PROPERTIES,CITY,STATUS, PLATFORM,MONTH



Property:

City:

Status:

Platform:

Month:



CONCLUSION

In conclusion, the hospitality analysis project has successfully harnessed data-driven insights to illuminate crucial aspects of Atliq Grands' business performance.

Through **comprehensive visualizations**, the project has provided a nuanced understanding of **revenue patterns, occupancy trends, and platform-specific booking** behaviors. These insights serve as a foundation for strategic decision-making, enabling the hotel chain to revitalize its market share and revenue in the luxury/business hotels category.

The implementation of interactive widgets enhances user engagement, fostering a dynamic exploration of data tailored to specific criteria.

As we look to the future, there is significant potential for further refinement and expansion of this analytical framework. Integrating real-time data sources, incorporating advanced machine learning models, and exploring predictive analytics could unlock even deeper insights for proactive business strategies.

The hospitality industry is dynamic, and ongoing analysis will be crucial for Atliq Grands to stay agile, adapt to evolving trends, and maintain a competitive edge in the market.



THANK YOU

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