**POWER BI PROJECT**

**HOTEL MANAGEMENT REPORT**

**Problem Statement:**

The objective of this project is to develop a comprehensive Power BI dashboard for hotel management that provides key insights into occupancy rates, revenue performance, booking trends, and room utilization. The dashboard should allow hotel managers to monitor and analyze data at different levels of granularity, including weekly, monthly, and quarterly trends.

**Key Metrics and Visualizations:**

1. **Occupancy Rate Analysis:**
   * Calculate and visualize the occupancy rate trend by week, month, and quarter.
   * Provide insights into occupancy fluctuations and identify patterns over time.
2. **Total Occupied Rooms Trend:**
   * Display the trend of total occupied rooms over weeks, months, and quarters.
   * Analyze the changes in room occupancy to make informed decisions regarding resource allocation.
3. **Average Daily Rate (ADR) Analysis:**
   * Calculate and visualize the average daily rate trend by week, month, and quarter.
   * Monitor ADR fluctuations to optimize pricing strategies and maximize revenue.
4. **Revenue Per Available Room (PAR) Trend:**
   * Present the trend of Revenue Per Available Room over weeks, months, and quarters.
   * Evaluate revenue performance and identify opportunities for improvement.
5. **Total Bookings Trend:**
   * Track the trend of total bookings over weeks, months, and quarters.
   * Monitor booking trends to forecast demand and manage inventory effectively.
6. **Weekend vs. Weekday Bookings Analysis:**
   * Analyze the trend of weekend nights and weekday nights bookings separately over weeks, months, and quarters.
   * Understand booking patterns and tailor marketing and pricing strategies accordingly.
7. **Cancelled Bookings Trend:**
   * Visualize the trend of total cancelled bookings over weeks, months, and quarters.
   * Identify cancellation trends and implement strategies to minimize cancellations.
8. **Total Revenue Analysis:**
   * Calculate and display the total revenue generated by the hotel.
   * Track revenue performance and set targets for revenue growth.
9. **Week Nights and Weekend Nights Revenue:**
   * Break down total revenue into revenue from week nights and weekend nights.
   * Understand revenue distribution and optimize pricing strategies for different days of the week.
10. **Total Revenue by Week Bar Chart:**
    * Display total revenue by week as a bar chart.
    * Add an average revenue line to identify weeks with revenue above or below the average.
    * Shade bars below average in grey and bars above average in dark to highlight performance.
11. **Total Occupied Rooms by Week Bar Chart:**
    * Present total occupied rooms by week as a bar chart.
    * Include an average occupancy line to visualize weeks with occupancy rates above or below average.
    * Shade bars below average in grey and bars above average in dark to highlight occupancy performance.