

# Hotel Management Power BI Dashboard

## Problem Statement:

This project presents a **comprehensive and interactive Power BI dashboard** designed to provide hotel managers and decision-makers with actionable insights into hotel performance. The dashboard analyzes key hospitality metrics, helping optimize operations, revenue, and resource allocation.

The dataset, sourced from **Kaggle**, contains detailed hotel booking information including stay dates, room status, booking type, cancellations, and revenue. The data was cleaned, transformed, and modeled using **Power Query** and **DAX** in Power BI. A dedicated date table was created to enable **time intelligence functions**, supporting analysis across weekly, monthly, and quarterly periods.

Key performance indicators (KPIs) included in the dashboard:

- **Occupancy Rate** – Trend analysis to identify high and low-demand periods.
- **Average Daily Rate (ADR)** – Pricing trends to optimize revenue.
- **Revenue per Available Room (RevPAR)** – Performance evaluation per available inventory.
- **Total Bookings & Cancellations** – Demand tracking and cancellation trend monitoring.
- **Weekend vs. Weekday Analysis** – Booking and revenue distribution for pricing strategy.
- **Revenue Segmentation** – Weeknight vs. weekend revenue breakdown.

The dashboard features **conditional formatting** on bar charts to highlight above/below average performance, making it easy to identify exceptional or underperforming periods. Interactive slicers allow users to filter data by time periods, booking types, and day types for customized insights.

This project demonstrates skills in **data cleaning, DAX calculations, and visualization design**, with a focus on **business intelligence for the hospitality sector**. It is scalable to include real-time data integration, predictive analytics for demand forecasting, guest segmentation, and multi-hotel performance comparison in future enhancements.

By transforming raw booking data into a visually engaging and insight-rich platform, this dashboard empowers hotel management to make data-driven decisions for maximizing occupancy, optimizing pricing, and boosting overall profitability.