

# **Business Problem Statement**

An online hotel booking platform has seen unstable booking completion rates, rising cancellations, and inconsistent customer satisfaction. With growing competition, the team wants to understand how factors like stay length, lead time, booking channel, room type, star rating, and pricing influence customer behavior and overall performance.

The goal is to analyze the Hotel\_bookings\_final.csv dataset to answer the question:

How can the platform use booking data to reduce cancellations, improve guest experience, and increase profitability?

## **Deliverables**

1. Data Preparation and Modeling (Google Collab)  
Clean the dataset using Python and pandas. Create helpful features for analysis.
2. Data Analysis and Visualization (Google Collab)  
Use pandas and matplotlib to study patterns across channels, room types, star ratings, pricing, seasonality, and cancellation behavior.
3. Insights & Visualisation (Looker Studio)  
Present charts showing booking trends, cancellation rates, pricing patterns, and guest behavior.
4. Report and Presentation  
Summarize key findings, explain root causes, and provide clear recommendations.
5. GitHub Repository  
Include the notebook or scripts, charts, and final report in a well organized structure.