### **Hospitality dataset** Hotel Hospitality Dataset Summary

The hotel hospitality dataset includes comprehensive data on hotel operations, guest demographics, bookings, room types, rates, and guest feedback. This dataset is essential for analyzing hotel performance, understanding guest preferences, and optimizing operational efficiency. With Power BI, you can create detailed dashboards to visualize and analyze:

* **Booking Trends**: Track booking patterns over time, identify peak seasons, and analyze occupancy rates.
* **Revenue Analysis**: Monitor revenue streams from different room types, services, and amenities to identify key income sources.
* **Guest Demographics**: Understand the demographics of your guests, including age, nationality, and travel purpose, to tailor marketing strategies.
* **Customer Feedback**: Analyze guest reviews and ratings to identify strengths and areas for improvement in the hotel experience.
* **Operational Efficiency**: Monitor housekeeping efficiency, service times, and resource utilization to optimize hotel operations.

### 1. Customer Segmentation

* **Demographics:** Age, gender, nationality.
* **Booking Behavior:** Booking lead time, length of stay, type of room booked, booking source (online, travel agency, direct).
* **Spending Patterns:** Average spend per stay, types of services used (room service, spa, restaurant).

### 2. Booking Trends

* **Seasonality:** Peak booking times, off-peak periods.
* **Cancellation Rates:** Patterns in cancellations, reasons for cancellations.
* **Lead Time Analysis:** Average lead time for bookings.

### 3. Revenue Management

* **Revenue per Available Room (RevPAR):** Key metric for hotel performance.
* **Average Daily Rate (ADR):** Average revenue earned per occupied room.
* **Occupancy Rates:** Percentage of rooms occupied over a period.

### 4. Customer Feedback and Satisfaction

* **Review Analysis:** Sentiment analysis of customer reviews.

### 5. Marketing Insights

* **Effectiveness of Marketing Campaigns:** Conversion rates from campaigns.
* **Customer Acquisition Cost:** Cost associated with acquiring a new customer.

### 6. Predictive Analytics

* **Booking Predictions:** Forecast future bookings based on historical data.
* **Customer Lifetime Value:** Estimate the long-term value of customers.

**Cleaning Step** –

Fill null valuecheckout people with null value

Determine that after relization the amont left with hotel after cencellation is 40%