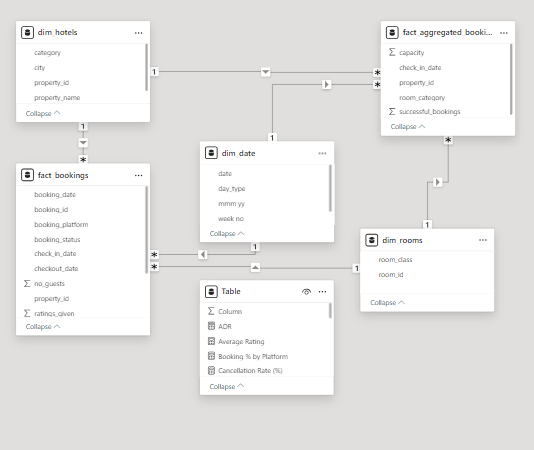
**Project Name:** Hotel Hospitality Project Using SQL & Power BI

**Dataset Link:** <https://drive.google.com/drive/folders/1ZRzYjs_vKwbliQBbb_mFQfoeUDSXH5_2?usp=sharing>

**ERD Diagram:**

****

**#Total Revenue:**

SELECT SUM(revenue\_realized)

AS total\_revenue

FROM fact\_bookings;



**#Total Bookings:**

SELECT COUNT(booking\_id)

AS total\_bookings

FROM fact\_bookings;



**#Total Capacity:**

SELECT SUM(capacity)

AS total\_capacity

FROM fact\_aggregated\_bookings;

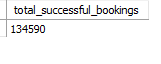


**#Total Successful Bookings:**

SELECT SUM(successful\_bookings)

AS total\_successful\_bookings

FROM fact\_aggregated\_bookings;



**#Occupancy Percentage:**

SELECT

SUM(successful\_bookings) / SUM(capacity)

\* 100 AS occupancy\_percentage

FROM fact\_aggregated\_bookings;



**# Average Rating:**

SELECT

round( AVG(ratings\_given) ,1)AS average\_rating

FROM fact\_bookings where ratings\_given

is not null and ratings\_given >0;



**#Total Cancellations and Cancellation Rate:**

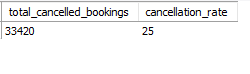
SELECT

COUNT(\*) AS total\_cancelled\_bookings,

round(COUNT(\*) \* 100.0 / (SELECT COUNT(\*) FROM fact\_bookings)) AS cancellation\_rate

FROM fact\_bookings

WHERE booking\_status = 'Cancelled';



**#No Show Bookings and Rate:**

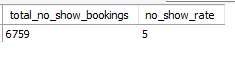
SELECT

COUNT(\*) AS total\_no\_show\_bookings,

round(COUNT(\*) \* 100.0 / (SELECT COUNT(\*) FROM fact\_bookings)) AS no\_show\_rate

FROM fact\_bookings

WHERE booking\_status = 'No show';



**#ADR**

SELECT SUM(revenue\_generated)/

COUNT(booking\_id) AS ADR

FROM fact\_bookings

WHERE booking\_status='Checked Out';



**#RevPAR (Revenue Per Available Room):**

SELECT SUM(revenue\_realized) /

SUM(capacity) AS RevPAR

FROM fact\_aggregated\_bookings ab

JOIN fact\_bookings fb ON

ab.property\_id = fb.property\_id;



**#DBRN (Daily Booked Room Nights):**

SELECT SUM(successful\_bookings) /

COUNT(DISTINCT check\_in\_date) AS DBRN

FROM fact\_aggregated\_bookings;



**#DSRN**

SELECT SUM(capacity) /

COUNT(DISTINCT check\_in\_date)

AS DSRN

FROM fact\_aggregated\_bookings;



**#DURN (Daily Utilized Room Nights):**

SELECT AVG(daily\_checked\_out\_count) AS DURN

FROM (SELECT d.date,COUNT(\*) AS daily\_checked\_out\_count

FROM dim\_date d JOIN fact\_bookings fb

ON d.date = fb.checkout\_date WHERE fb.booking\_status =

'Checked Out'GROUP BY d.date) AS daily\_counts;



**#Revenue by City:**

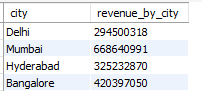
SELECT h.city, SUM(b.revenue\_realized)

AS revenue\_by\_city

FROM fact\_bookings b JOIN dim\_hotels h

ON b.property\_id = h.property\_id

GROUP BY h.city;



**#Occupancy % by City:**

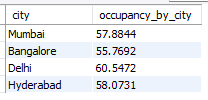
SELECT h.city,SUM(ab.successful\_bookings) /

SUM(ab.capacity) \* 100 AS occupancy\_by\_city

FROM fact\_aggregated\_bookings ab

JOIN dim\_hotels h ON ab.property\_id =

h.property\_id GROUP BY h.city;



**#Average Rating by City:**

SELECT h.city,

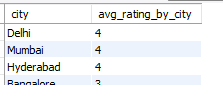
round(AVG(b.ratings\_given)) AS avg\_rating\_by\_city

FROM fact\_bookings b

JOIN dim\_hotels h ON b.property\_id = h.property\_id

where b.ratings\_given is not null and ratings\_given>0

GROUP BY h.city;



**-- Average Rating**

SELECT

d.week\_no,

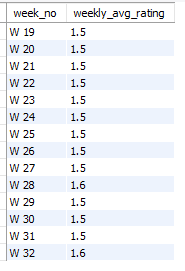
round(AVG(b.ratings\_given),1) AS weekly\_avg\_rating

FROM fact\_bookings b

JOIN dim\_date d ON b.check\_in\_date = d.`date`

GROUP BY d.week\_no

ORDER BY d.week\_no;



**# Booking % by Platform:**

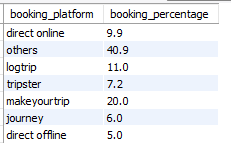
SELECT booking\_platform,

round(COUNT(\*) \* 100.0 / (SELECT COUNT(\*)

FROM fact\_bookings),1) AS booking\_percentage

FROM fact\_bookings

GROUP BY booking\_platform;



**#Citywise Cancellation %:**

WITH total\_bookings\_by\_property AS (

SELECT property\_id, COUNT(\*) AS total\_bookings

FROM fact\_bookings

GROUP BY property\_id

)

SELECT

h.city,

COUNT(\*) \* 100.0 / tb.total\_bookings AS cancellation\_percentage

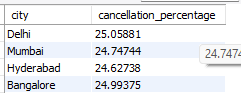
FROM fact\_bookings b

JOIN dim\_hotels h ON b.property\_id = h.property\_id

JOIN total\_bookings\_by\_property tb ON b.property\_id = tb.property\_id

WHERE b.booking\_status = 'Cancelled'

GROUP BY h.city, tb.total\_bookings;



**#Popular Room Types by Number of Bookings:**

SELECT r.room\_class,r.room\_id,

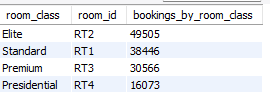
COUNT(\*) AS bookings\_by\_room\_class

FROM fact\_bookings b

JOIN dim\_rooms r ON b.room\_category = r.room\_id

GROUP BY r.room\_class,r.room\_id

ORDER BY bookings\_by\_room\_class DESC;



**Conclusion: Key Insights & Strategic Focus**

1. **Revenue Performance**:
   * **Total Revenue**: 2B INR over three months.
   * **Top Performers**: Luxury hotels contributed 61.61%, with "ITV Exotica" leading at 320M INR.
   * **Booking Impact**: 82.46% revenue from successful check-outs.
2. **Occupancy & Booking**:
   * **Average Occupancy**: 57.87%, with Mumbai at 24.92% and Hyderabad at 25%.
   * **Booking Channels**: 40.9% bookings via "others" (unspecified platforms).
3. **Stable Occupancy, Falling Revenue**:
   * **Insight**: Occupancy remained stable, but revenue decreased. This suggests hotels were making less money per booking. Consider strategies like adjusting prices or offering premium services.
4. **Cancellations**:
   * **Rate**: Overall 24.83%, highest in Delhi at 25.2%.
   * **Impact**: Significant revenue loss from cancellations.
5. **Customer Satisfaction**:
   * **Average Rating**: 3.60/5, highest in Delhi (3.8), lowest in Bangalore (3.4).
6. **Revenue Metrics**:
   * **ADR**: 14.92K INR, **RevPAR**: 8.63K INR, **Realization**: 70.15%.
7. **City-Wise Insights**:
   * **Revenue**: Mumbai leads with 39.13%.
   * **Occupancy by Day**: 74% on weekdays vs. 51% on weekends.

**Strategic Focus:**

* **Reduce Cancellations & Improve Satisfaction**: Focus on Bangalore.
* **Revenue Optimization**: Enhance ADR, RevPAR, and realization rates.
* **Operational Efficiency**: Leverage insights to regain market share.