Power BI Project Outline:

AtliQ Grands Hotel Chain Dashboard

I. Overview:

AtliQ Grands owns multiple five-star hotels across India. They have been in the hospitality industry for the past 20 years. Due to strategic moves from other competitors and ineffective decision-making in management, AtliQ Grands are losing its market share and revenue in the luxury/business hotels category. As a strategic move, the managing director of AtliQ Grands wanted to incorporate “Business and Data Intelligence” to regain their market share and revenue.

II. How I do my analysis

Step 1: Define the goal

Create a dashboard that represent 3 important things:

1.1.Key hospitality metrics:

- Total revenue
- Average daily rate: the ratio of revenue to the total rooms booked/sold.
- Cancelation %: the rate of canceled bookings by total bookings.
- Realization %: the successful "checked out" percentage over all bookings happened.

Note: those key metrics go with week over week change percentage

1.2. Comparison:

1.2.1. Comparison between all properties (all hotels) of AtliQ Grands in:

- Revenue
- Occupancy %: total successful bookings happened to the total rooms available (capacity), given that total capacity get the total rooms present in hotels
- Total bookings
- Average rating of customers
- RevPar: RevPAR represents the revenue generated per available room, whether they are occupied.
- Cancelation percentage of each hotel
- Realization percentage of each hotel
- DBRN: how many rooms are **booked** for a day considering a time period (= Total bookings/No of days)
- DSRN: average how many rooms are **ready to sell** for a day considering a time period (=Total capacity/No of days)
- DURN: average how many rooms are **successfully utilized by customers** for a day considering a time period

1.2.2. Comparison between 2 main category of hotels type room: luxury and business in their total revenue

1.2.3. Comparison between different booking platforms in their Realization % and ADR

Note: Booking platforms include direct online, direct offline, journey, logtrip, makeyourtrip, tripster and others

1.2.4. Comparison between weekday and weekend by key metrics, please keep in mind that in hospitality industry, weekend comprises Friday, Saturday, and Sunday

1.3. Trend in key metrics (in 1.1) monthly and weekly

Note: all metrics can be filtered by year - month - week number, hotel room class and city of India.

Step 2: Collecting data

Dataset provided by https://codebasics.io/resources/end-to-end-data-analyst-project

This dataset includes 5 csv files:

1. dim_date (date, mmm yy, week_no, day_type)

2. dim_hotels (property_id, property_name, category, city)

3. dim_rooms (room_id, room_class)

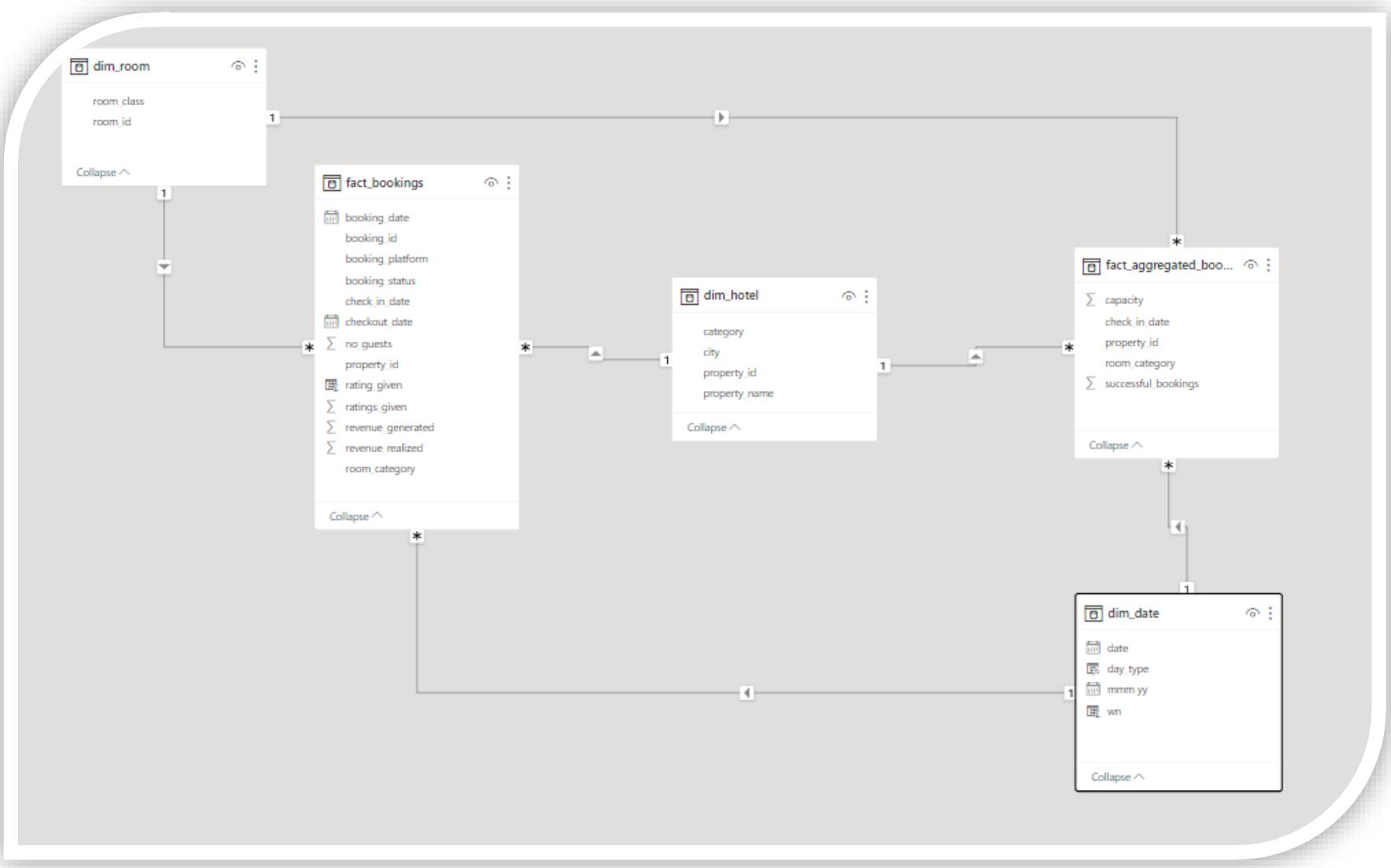
4. fact_aggregated_bookings (property_id, check_in_date, room_category, successful_bookings, capacity)

5. fact_bookings (booking_id, propery_id, booking_date, check_in_date, check_out_date, no_guests, room_category, booking_platform, ratings_given, booking_status, revenue_generated, revenue_relized)

Step 3: Cleaning and processing data

Using Power Query transformation to load and clean the dataset.

This dataset is already cleaned so I jump to data modeling in Power BI.



Step 4: Create some key metrics by using DAX, calculated measures and calculated columns

```
Total_bookings = count(fact_bookings[booking_id])

Total successful bookings = sum(fact_aggregated_bookings[successful_bookings])

Total no show bookings = CALCULATE([Total_bookings],fact_bookings[booking_status]="No Show")

Total check out bookings = CALCULATE([Total_bookings],fact_bookings[booking_status]="Checked Out")

Total capacity = sum(fact_aggregated_bookings[capacity])

Total cancelled bookings = CALCULATE([Total_bookings],fact_bookings[booking_status]="Cancelled")

RevPar = DIVIDE([Revenue],[Total capacity])

DBRN = DIVIDE([Total_bookings], [No of days])

DSRN = DIVIDE([Total Capacity], [No of days])

DURN = DIVIDE([Total check out bookings],[No of days])

No show rate % = DIVIDE([Total no show bookings],[Total_bookings])

Booking % by Platform = DIVIDE([Total_bookings],CALCULATE([Total_bookings],all(fact_bookings[booking_platform])))*100

Booking % by Room class = DIVIDE([Total_bookings],CALCULATE([Total_bookings],all(dim_room[room_class])))*100

Revenue = sum(fact_bookings[revenue_realized])

Occupancy % = DIVIDE([Total successful bookings],[Total capacity],0)

Realization % = 1-[Cancellation %]-[No show rate %]

ADR = DIVIDE( [Revenue], [Total_bookings],0)

Average rating = AVERAGE(fact_bookings[rating_given])

Cancellation % = DIVIDE([Total cancelled bookings],[Total_bookings])
```

Week over week change in revenue, cancelation, realization and ADR: using Quick measure calculations.

Step 5: Create visualization

Day type	Revenue	RevPar	ADR	Realization %	Cancellation %	Occupancy %	No show rate %	Average rating
Weekend	6.818.340	16.080,99	25.159,93	0,69	0,25	0,64	0,05	3,84
Weekday	17.190.630	14.743,25	25.280,34	0,69	0,26	0,58	0,05	3,76
Total	**24.008.970**	**15.099,98**	**25.246,03**	**0,69**	**0,26**	**0,60**	**0,05**	**3,78**

Property Name	City	Revenue	Rev per available ...	Total bookings	Average customer rating	DBRN	DSRN	DURN	Average daily rate	Occupancy %	Cancellation %	Realiza
Atliq Bay	Bangalore	7.044.060	16.771,57	276	4	9	14	6	25.522	0,66	0,26	
Atliq Blu	Bangalore	2.763.360	13.158,86	108	3	4	7	3	25.587	0,51	0,25	
Atliq City	Bangalore	8.090.010	16.854,19	322	4	11	16	7	25.124	0,67	0,25	
Atliq Exotica	Bangalore	1.144.560	12.717,33	48	3	2	3	1	23.845	0,53	0,33	
Atliq Grands	Bangalore	2.506.290	11.934,71	95	2	3	7	2	26.382	0,45	0,19	
Atliq Palace	Bangalore	2.460.690	13.670,50	102	3	3	6	2	24.124	0,57	0,29	
Total		**24.008.970**	**15.099,98**	**951**	**4**	**32**	**53**	**22**	**25.246**	**0,60**	**0,26**	