AtliQ Hospitality Domain

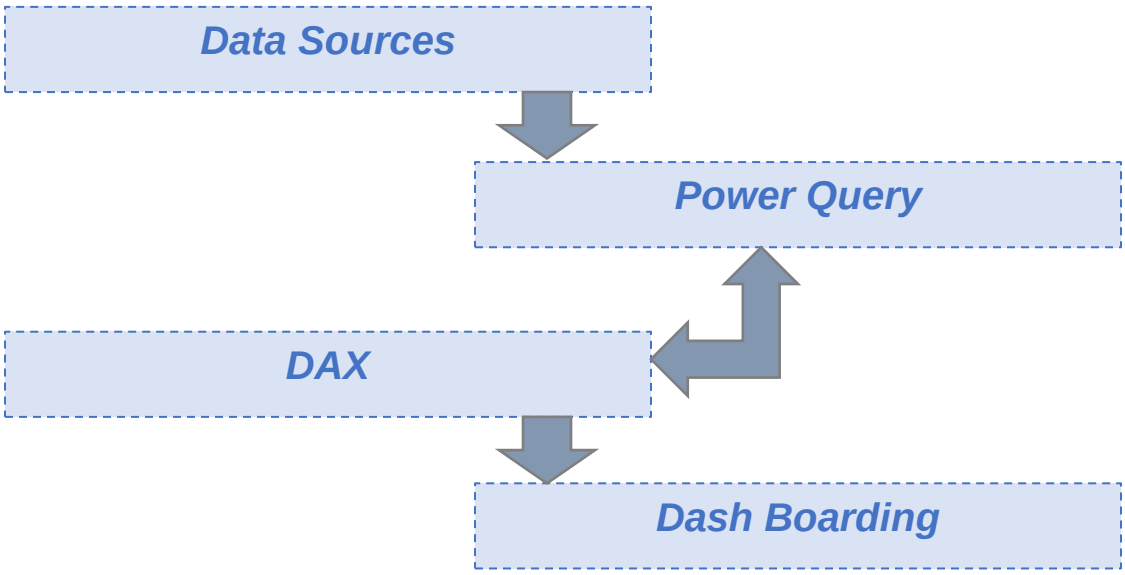
AtliQ Grands owns multiple five-star hotels across India. They have been in the hospitality industry for the past 20 years. Due to strategic moves from other competitors and ineffective decision-making in management, AtliQ Grands are losing its market share and revenue in the luxury/business hotels category. As a strategic move, the managing director of AtliQ Grands wanted to incorporate "Business and Data Intelligence" to regain their market share and revenue. However, they do not have an in-house data analytics team to provide them with these insights.

Their revenue management team had decided to hire a 3rd party service provider to provide them with insights from their historical data.

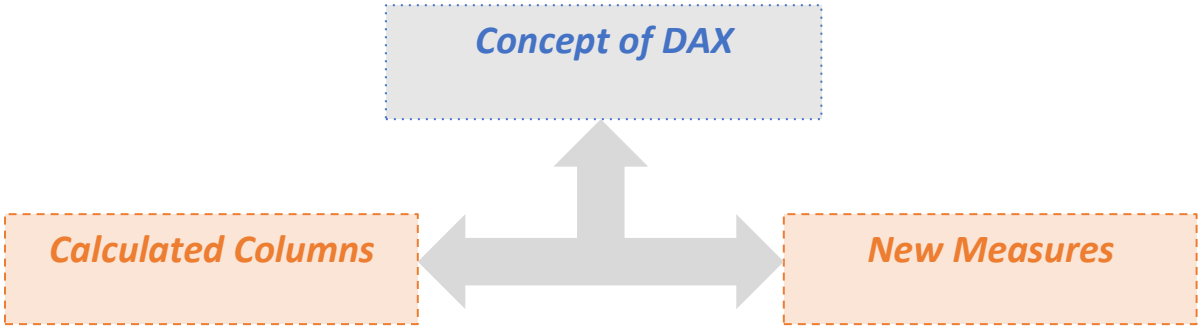
Visualization Tool : PowerBi
Database : Excel

Process includes
1) Importing and verifying data. few transformations and cleaning in power query
2) Data modeling
3) Identifying & Creating Measures using DAX.
4) Validating all data
5) Creating Dashboard using appropriate Visualization.

In Power BI tool we will use the following process...



Helper Document



All these calculations are available in the excel sheets. Refer that document for the formulas of calculated field and measures field.

i. Calculated Columns: -

a. wn: WEEKNUM(dim_date[date])

b. Day_type: day type =

```
VAR wkd = WEEKDAY(dim_date[date],1)

RETURN

IF (wkd > 5, “Weekend”, “Weekday”)
```

ii. New Measures: -

a. Revenue
b. Total Booking
c. Total Capacity
d. Total Successful Bookings
e. Occupancy %
f. Average Rating
g. No of days
h. Total cancelled bookings
i. Cancellation %
j. Total Checked Out
k. Total no show bookings

l. No Show rate %
m. Booking % by Platform
n. Booking % by Room class
o. ADR
p. Realization %
q. RevPAR
r. DBRN
s. DURN
t. Revenue WoW change %
u. Occupancy WoW change %
v. ADR WoW change %
w. RevPAR WoW change %
x. Realization WoW change %
y. DSRN WoW change %

Here is the full form of the formula which is important to create Dashboard in Hospitality Domain.

RevPAR = {Revenue Per Available Room}

ADR = {Average Daily Rate}

SRN = Sellable Room Nights

DSRN = Daily Sellable Room Nights

URN = Utilization Room Nights

DBRN = Daily Booked Room Nights

Week-on-Week (WoW)

Week-on-Week (WoW) is a type of business metric that measures changes in a specific variable over a period of one week compared to the previous week. It is a common way of tracking business performance over time and is particularly

useful for analyzing trends and identifying areas where improvements can be made. Here are the metrics for which we found the WoW change%:

1. Revenue WoW change %: To get the revenue change percentage week over week.
2. Occupancy WoW change %: To get the occupancy change percentage week over week.
3. ADR WoW change %: To get the ADR (Average Daily rate) change percentage week over week.
4. RevPAR WoW change %: To get the RevPAR (Revenue Per Available Room) change percentage week over week.
5. Realisation WoW change %: To get the Realisation change percentage week over week.
6. DSRN WoW change %: To get the DSRN (Daily Sellable Room Nights) change percentage week over week. Let's understand WoW change% for Revenue metric as an example:

Let's understand WoW change% for R evenue metric as an example:

Revenue WoW change % =

```
VAR selv = IF(HASONEFILTER(dim_date[wn]), SELECTDVALUE(dim_date[wn]),
MAX(dim_date[wn]))
VAR revcw = CALCULATE ([Revenue], dim_date[wn] = selv)
VAR revpw = CALCULATE ([Revenue], FILTER(ALL(dim_date),dim_date[wn] = selv-1))
RETURN
DIVIDE (revcw, revpw,0) - 1
```

Let's break down this formula:

Var selv = IF(HASONEFILTER(dim_date[wn]), SELECTEDVALUE(dim_date[wn]),MAX(dim_date[wn]))

This line creates a variable named **selv**. It checks if there is only one filter applied to the **dim_date[wn]** column. If there is only one filter, it uses the selected value of that filter; otherwise, it uses the maximum value of the **dim_date[wn]** column.

Var revcw = CALCULATE([Revenue],dim_date[wn]= selv)

This line creates a variable named **revcw**. It calculates the revenue by applying a filter on the **dim_date[wn]** column, where the value matches the one stored in the **selv** variable. The **[Revenue]** measure is used for this calculation.

Var revpw = CALCULATE([Revenue],FILTER(ALL(dim_date),dim_date[wn]= selv-1))

This line creates a variable named **revpw**. It calculates the revenue for the previous week by applying a filter on the **dim_date[wn]** column, where the value is one less than the one stored in the **selv** variable. The **FILTER** function combined with **ALL(dim_date)** ensures that the filter is applied to all the dates, regardless of other filters that might be active. The **[Revenue]** measure is used for this calculation.

DIVIDE (revcw, revpw,0)-1

This line calculates the percentage change in revenue WoW. It uses the **DIVIDE** function to divide the value of **revcw** (current week revenue) by the value of **revpw** (previous week revenue), with a specified default value of 0 in case the divisor is 0. The resulting quotient is then subtracted by 1 to calculate the percentage change.

The entire formula returns the week-over-week percentage change in revenue. This formula can be used as a calculated column or a measure in Power BI to display the WoW revenue change in a visual or table