# DATA ANALYSIS PROJECT

**CASELET** : City Hotel and Resort Hotel is a global dealer company in multiple countries. The revenue of the hotel has been rising. The management of the hotel wants high level visualization of historical record to find targeted areas. The management expects you to summarise key actionable insights to rise the profile margin according to you in a dashboard.

**REQUIREMENT : Build a visual data story using SQL and Power BI to present to your stakeholder.**

**TASK: 1 Understanding the Data**

* This database contains booking details of hotel of last three years
* This dataset has 5 tables

Table name : 2018, 2019, 2020, meal\_cost, market\_segment

**TASK: 2 Gathering Requirement**

1. Is our hotels revenue is growing each year ?
2. Which hotels(city hotel or resort hotel) revenue is highest ?
3. Visualized all data in single table.
4. Which market segment should be highly using to improve pricing strategies.
5. Should we increase our parking lot size ?
6. In which month highest and lowest booking is done and in which year ?
7. What trends can we see in the data ?

**DATA EXPLORATION USING SQL**

with hotels as (

select \* from dbo.[2018]

union

select \* from dbo.[2019]

union

select \* from dbo.[2020] )

1. Write a query to check if hotels revenue is growing each year or not

select arrival\_date\_year, sum((stays\_in\_week\_nights+stays\_in\_weekend\_nights)\*adr) as revenue

from hotels

group by arrival\_date\_year

2018 4885444.05

2019 16910766.90

2020 14284211.24

INSIGHTS: The revenue of the hotel is growing each year.

1. Write a query to check which hotels revenue is highest

select hotel, sum((stays\_in\_week\_nights+stays\_in\_weekend\_nights)\*adr) as revenue

from hotels

group by hotel

City Hotel 19148876.27

Resort Hotel 16931545.93

INSIGHTS: City Hotel has more revenue than resort hotel

1. Write a query to join tables

select \*

from hotels A

left join dbo.market\_segment B on A.market\_segment = B.market\_segment

left join dbo.meal\_cost C on A.meal = C.meal

1. Write a query to find which market segment should be highly used to improve pricing strategies.

select market\_segment, count(market\_segment) as Total

from hotels

group by market\_segment

Aviation 227

Complementary 713

Corporate 4314

Direct 12244

Groups 5325

Offline TA/TO 14525

Online TA 53424

Undefined 4

INSIGHTS: Online TA should be target more to improve pricing strategies.

1. Write a query to check parking space should be increase or not.

select arrival\_date\_year, required\_car\_parking\_spaces as ParkingSpace, count(required\_car\_parking\_spaces) as Total

from hotels

group by required\_car\_parking\_spaces, arrival\_date\_year

2018 0 11984

2018 1 1323

2018 2 4

2019 0 41794

2019 1 3967

2019 2 12

2019 3 1

2020 0 29515

2020 1 2159

2020 2 13

2020 3 2

2020 8 2

INSIGHTS: Parking area is good, it should not be increase. As most of the customer does not required parking space.

1. Write a query to find which month has highest and lowest booking ratio

select arrival\_date\_year, MAX(arrival\_date\_month) as Highest, MIN(arrival\_date\_month) as lowest

from hotels

group by arrival\_date\_year

2018 September August

2019 September April

2020 May April

INSIGHTS: September is the highest month of booking ratio.