Data analysis on Hotel Revenue

1. Questions to be answered.

Is hotel revenue increasing by year?

Do we need more parking space in coming year?

What trend do we see in the data?

1. Build a database after uploading excel files.
2. Use SQL queries to explore the data and answer the above questions.
3. Connect with Power BI and visualize.
4. Summarize the findings.

-- Creating a temporary table Hotels that combines data from all three years

with Hotels as (

select \*

FROM dbo.[2018\_revenue]

union

SELECT \*

FROM dbo.[2019\_revenue]

union

SELECT \*

FROM dbo.[2020\_revenue])

--Joining two tables:market\_segement and meal to the temporary table Hotels

SELECT \*

FROM Hotels

LEFT JOIN dbo.market\_segment m

on hotels.market\_segment = m.market\_segment

LEFT JOIN dbo.meal\_cost meal

on hotels.meal=meal.meal

-- Calculating revenue by year on given hotel

with hotels as (

select \*

FROM dbo.[2018\_revenue]

union

SELECT \*

FROM dbo.[2019\_revenue]

union

SELECT \*

FROM dbo.[2020\_revenue])

SELECT hotel, arrival\_date\_year, round(SUM((stays\_in\_weekend\_nights + stays\_in\_week\_nights)\*adr),2) as revenue

FROM hotels

GROUP BY hotel, arrival\_date\_year

ORDER BY revenue

-- Do we need more car parking?

with hotels as (

select \*

FROM dbo.[2018\_revenue]

union

SELECT \*

FROM dbo.[2019\_revenue]

union

SELECT \*

FROM dbo.[2020\_revenue])

SELECT arrival\_date\_year,SUM(required\_car\_parking\_spaces) as total\_parking

FROM Hotels

GROUP BY arrival\_date\_year, required\_car\_parking\_spaces

--Which month was the busiest

with Hotels as (

select \*

FROM dbo.[2018\_revenue]

union

SELECT \*

FROM dbo.[2019\_revenue]

union

SELECT \*

FROM dbo.[2020\_revenue])

SELECT arrival\_date\_month, arrival\_date\_year, COUNT(arrival\_date\_month)

FROM Hotels

GROUP BY arrival\_date\_month, arrival\_date\_year

ORDER BY arrival\_date\_year, COUNT(arrival\_date\_month)

with Hotels as (

select \*

FROM dbo.[2018\_revenue]

union

SELECT \*

FROM dbo.[2019\_revenue]

union

SELECT \*

FROM dbo.[2020\_revenue])

SELECT SUM(stays\_in\_week\_nights), sum(stays\_in\_weekend\_nights)

FROM Hotels