PORTFOLIO TASK ANALYSIS

Excel and Tableau

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Project description

This data was used to determine the most booked hotel, best time of year to book an hotel room and predict whether an hotel is likely to receive a disproportionately high number of special requests. Ever wondered on the optimal length of stay in order to get the best daily rate? This data will help in understanding the trends, point out lagging areas in hotel bookings and how it can be improved. The dataset was cleaned by removing/modifying data that are incorrect, incomplete, irrelevant, duplicated, or improperly formatted. Tableau was used for visualization and insight communication. It was discovered that

ANALYSIS

Findings from the root cause/5 why's analysis

1. Why is so much gap between city hotel and resort hotel? There is so much gap because all the top bookings are made into city hotel.

2. Why is city still the hotel with highest special request? This is so because booking and special request are equivalent to each other, PRT have the highest (7,403) just like number of booking.

3. Why is required parking space few compared to the number of hotel booking made? Required parking space is few because majority didn't request for parking space.

4. Why is August the highest month people arrived at the hotel? Both city hotel and resort hotel have a higher booking and people arriving at the hotel in August compare to other months.

5. Why is room A the most assigned room? In both hotel room A is the highest reserved room, followed by D before other room.
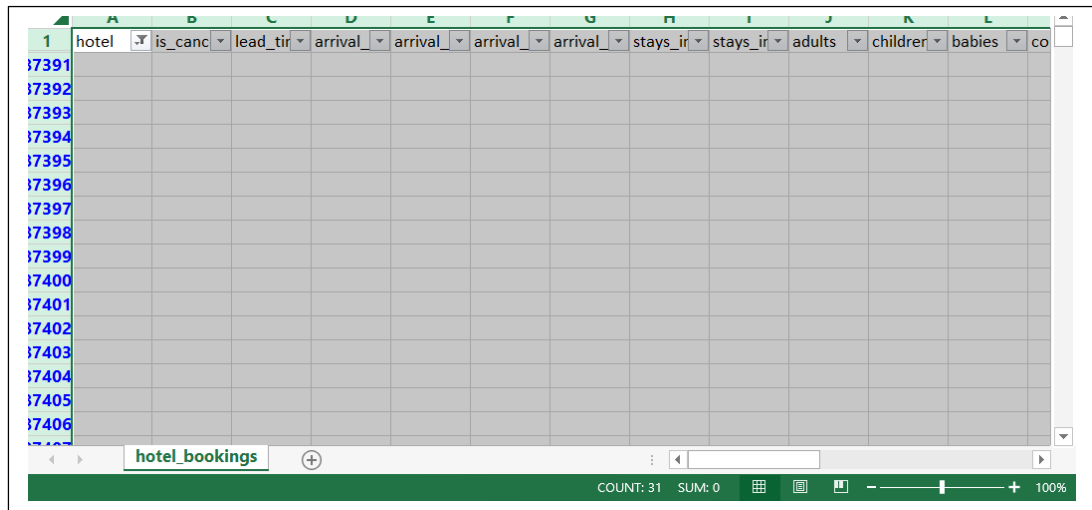
Design (Steps in cleaning the data)

The following are steps taken in cleaning the data;

1. Duplicate data were removed, 25937 duplicate was found and removed, remaining 54351 data row.
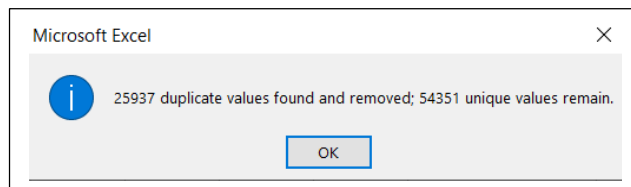
2. Blank cells were Removed, 31 rows was deleted

3. Delete some unneeded data column like adult, children, babies, distribution channel, agents, company, reservation status, reservation status date etc.

FINDINGS

- Uncleaned dataset [Hotel booking demand | Kaggle](#)
- Cleaned data :

  https://docs.google.com/spreadsheets/d/1vXDZt7NJvhN1SEpWYpU4E840sZgj_zsIXO1FbbTpars/edit?usp=sharing
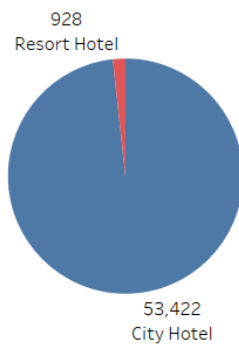
Visuals

Fig 1: City hotel have more booking than Resort hotel and their count is higher as well.
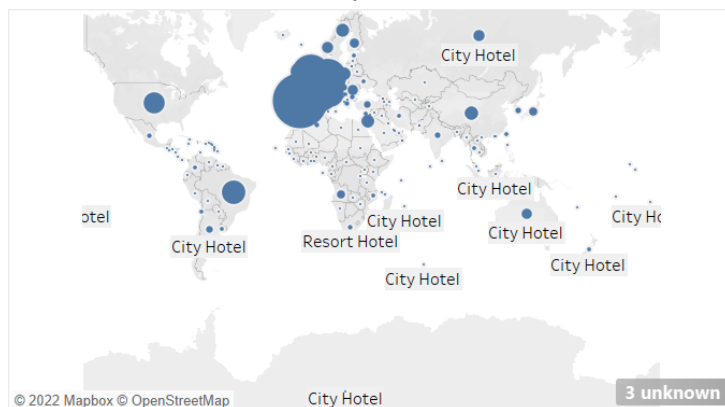

Fig 2: PRT have the highest no of hotel booking sum (13,213) and 7,403 no of special request sum and is a city hotel booker.

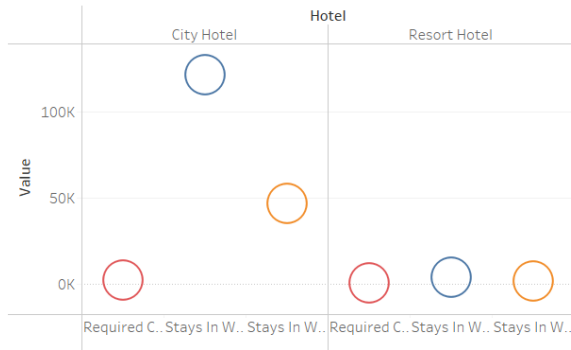Hotel sum of required car pack,stay in week & weekend night

Fig 3: Required car parking space is low at both hotel compare to booked total sum and sleep in weeks night is higher than weekend night.
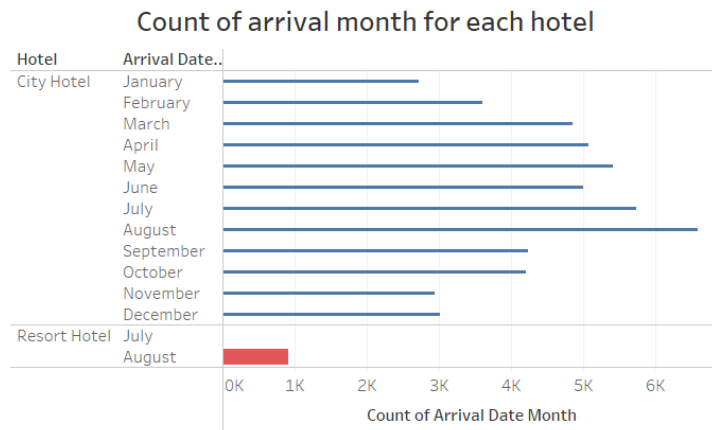

Count of arrival month for each hotel

Fig 4: August have the highest population at the both hotel, followed by july.

Summary of Arrival year
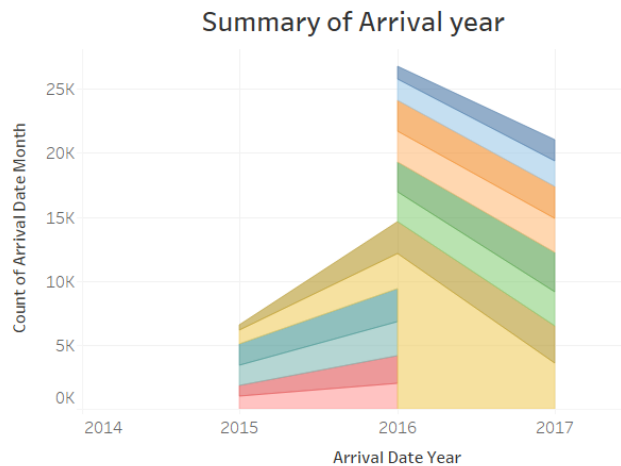
Fig 5

Each hotel reserved room type

Hotel

Reserve..	City Hot..	Resort ..
A	37,936	402
B	996	
C	14	65
D	10,766	236
E	1,470	129
F	1,757	38
G	479	39
H		19
P	4	

Fig 6: As shown above, room A is the most reserved room at both hotel, followed by D.

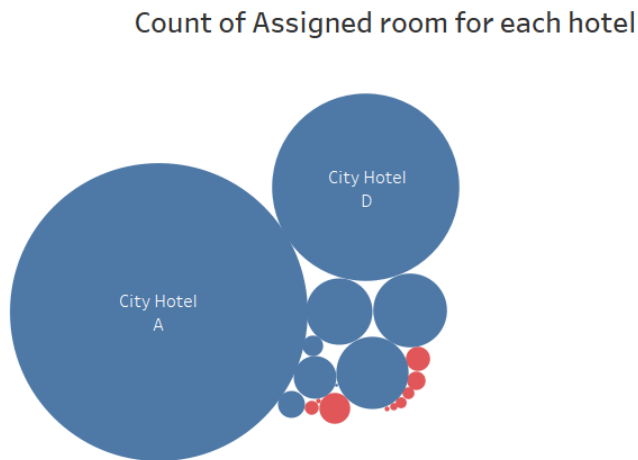## Count of Assigned room for each hotel

Fig 7: In-line with the reserved room, room A is the most assigned room at both hotel. Though, it's not the same amount reserved for is being assigned.

Hotel breakdown summary

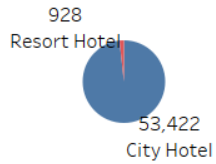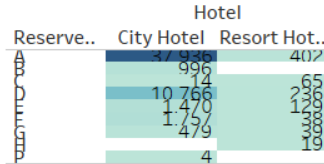| Hotel	Customer T..	Booking Chan..	Days In Waiti..	Is Canceled	Is Repeated ..	Previous Boo..	Previous Can..
City Hotel	Contract	177	0	368	14	1	188
	Group	105	88	24	44	118	12
	Transient	9,129	12,416	14,472	1,504	9,261	1,378
	Transient-P..	3,751	42,005	1,183	144	851	333
Resort	Contract	15	0	0	0	0	0
Hotel	Group	2	0	0	0	0	0
	Transient	297	0	0	6	0	0
	Transient-P..	61	0	0	0	0	0

Fig 8

CONCLUSION

In conclusion, the amount of people that book the hotel have effect on the special request made. The location of the hotel also will be a determinant of how well it will be sought after. Not everybody go to the hotel with private car, the number of cars at the parking lot don't justify the number of people that booked the hotel.
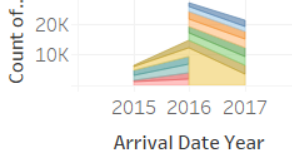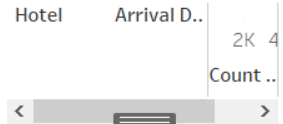
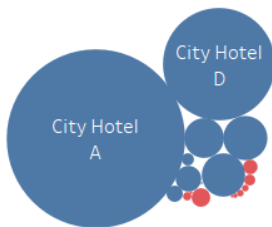# D ASHBOARD

Hotel booking for each hotel

928
Resort Hotel

53,422
City Hotel

Each hotel reserved room type

Reserve..	Hotel City Hotel	Resort Hot..
A	37,936	402
B	996	
C	14	65
D	10,766	236
E	1,470	128
F	1,792	38
G	479	19
P	4	

Summary of Arrival year

Count of..
20K
10K

2015 2016 2017
Arrival Date Year

Count of arrival month for each hotel

Hotel   Arrival D..
2K   4
Count ..

Count of Assigned room for each hotel

City Hotel D

City Hotel A

Hotel breakdown summary

Hotel	Custome..
City Hotel	Contract
	Group
	Transient
	Transien..
Resort Hotel	Contract
	Group
	Transient
	Transien..

Country total no of hotel booking & no of special requests

City Hotel

© Mapbox © OSM City Hotel   3 unknown

Hotel sum of required car pack,stay in week & weekend night

	Hotel City Hotel	Resort Hot..
Value
100K
50K
0K

Re.. St.. St..   Re.. St.. St..

10