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EDA ON : Hotel Booking Analysis

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Legends



- I. Hotel Selection Aanalysis
- II. Based on facility.
- III. Summary Data.
- IV. Market Aanalysis.
- V. Booking cancellations .
- VI. Challenges .
- VII. Conclusion .
- VIII. Summary .

Selection Aanalysis

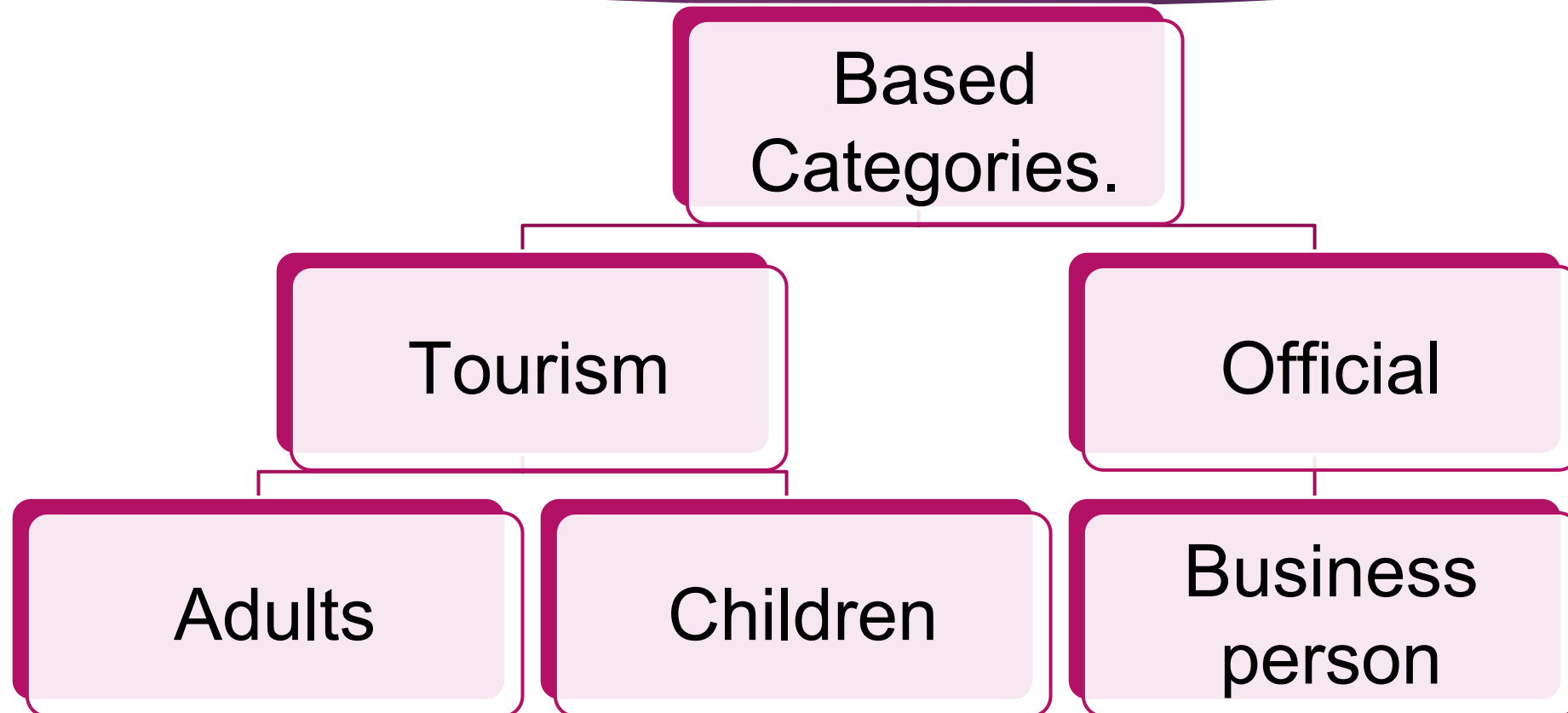
```
graph TD; A[Based on Categories.] <--> B[Resort Hotel.]; A <--> C[City Hotel.];
```

Based on
Categories.

Resort Hotel.

City Hotel.

Continue...



Based On Facilities.

- I. Purpose Of Visit :: A. Official
B. Tour/Spiritual**
- II. Based On Area / Location .**
- III. Car Parking – Sufficient space
with good car parker / driver
availability.**

II. Summary Data.

Types Of Hotel

City Hotel

Resort Hotel

Food

Refreshment
meal

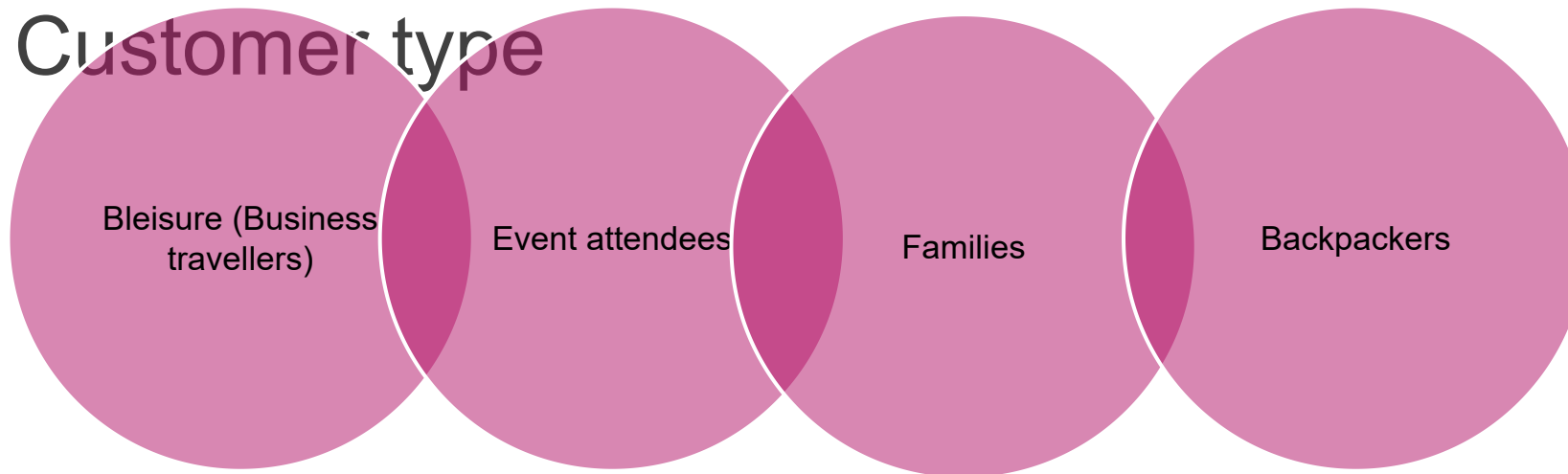
Veg / Non-
veg

Dinner

Drinks – Soft
& Hard

III. Market Segment.

- In that we have summarize the purpose of booking , it may be official work / corporate and may be picnic / tourism also.
- Timewise analysis – Duration.
- Customer type



IV. Booking /Cancellations

Booking

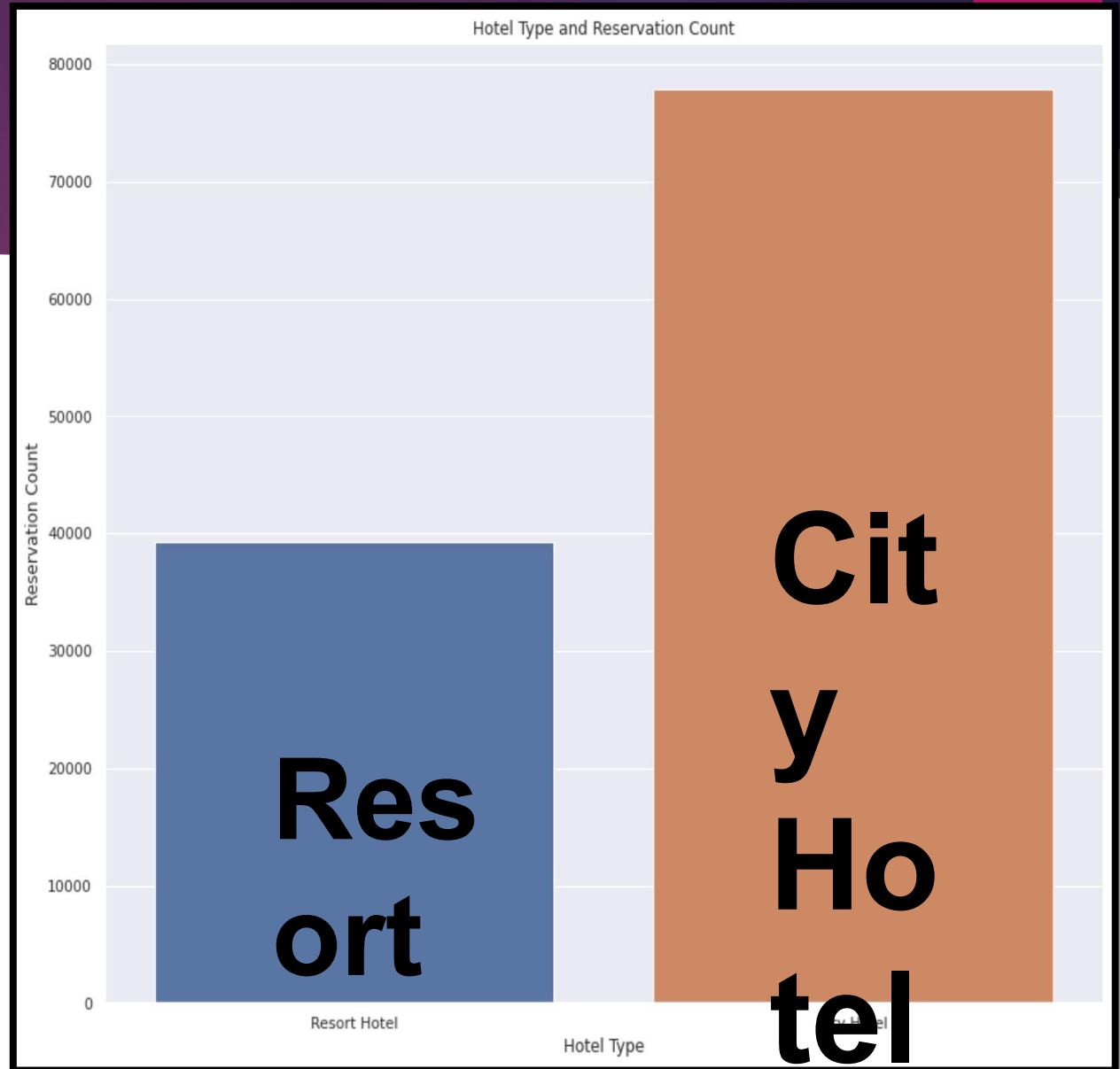
- Maximum :- July to August
- Minimum :- November to February

Cancellations

- I. Sudden changes in plan
- II.. Minimum work length
- III. Based area / Location
- IV. facilities

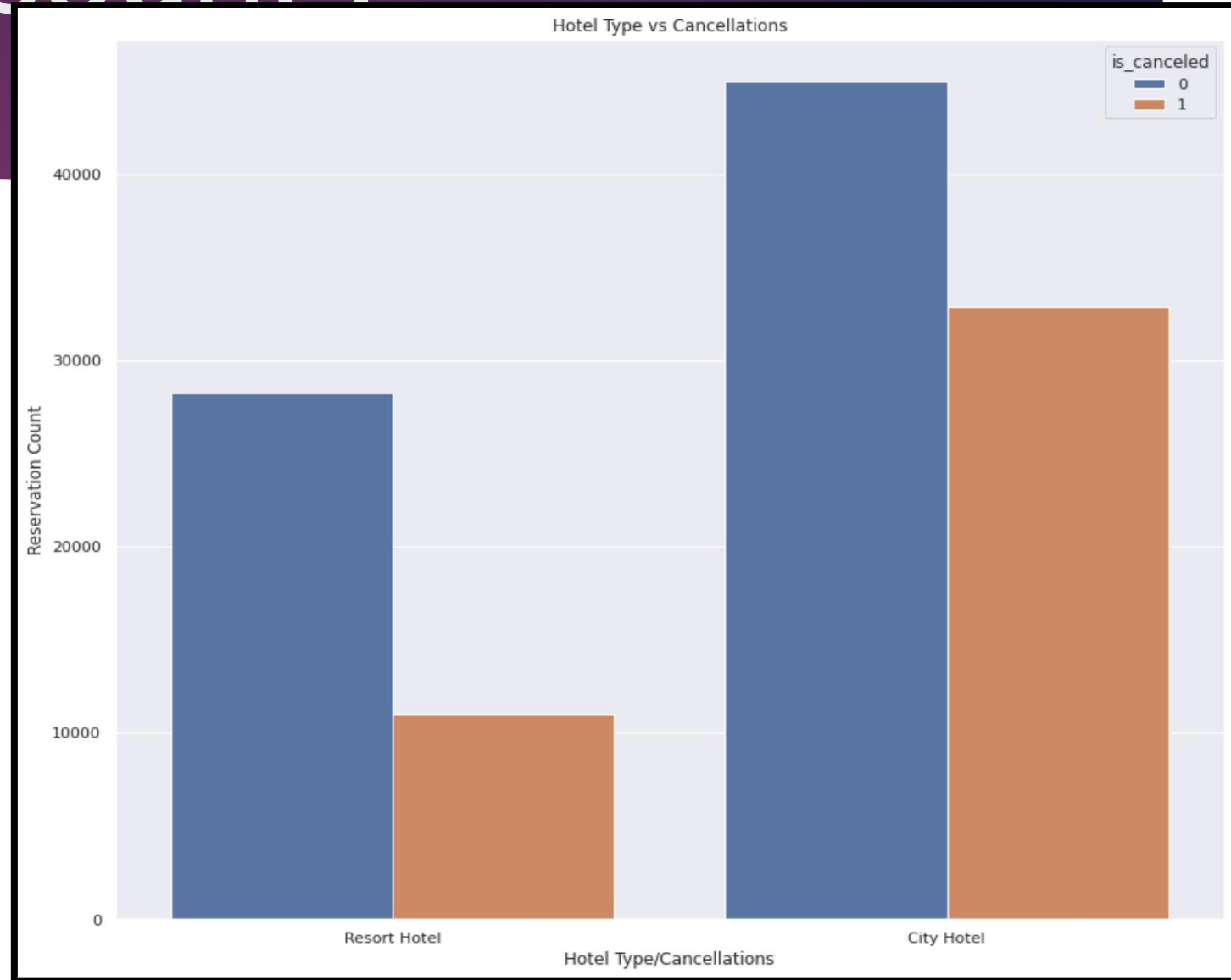
Reservation count :

City hotel
has more
reservati
on
compare
d to

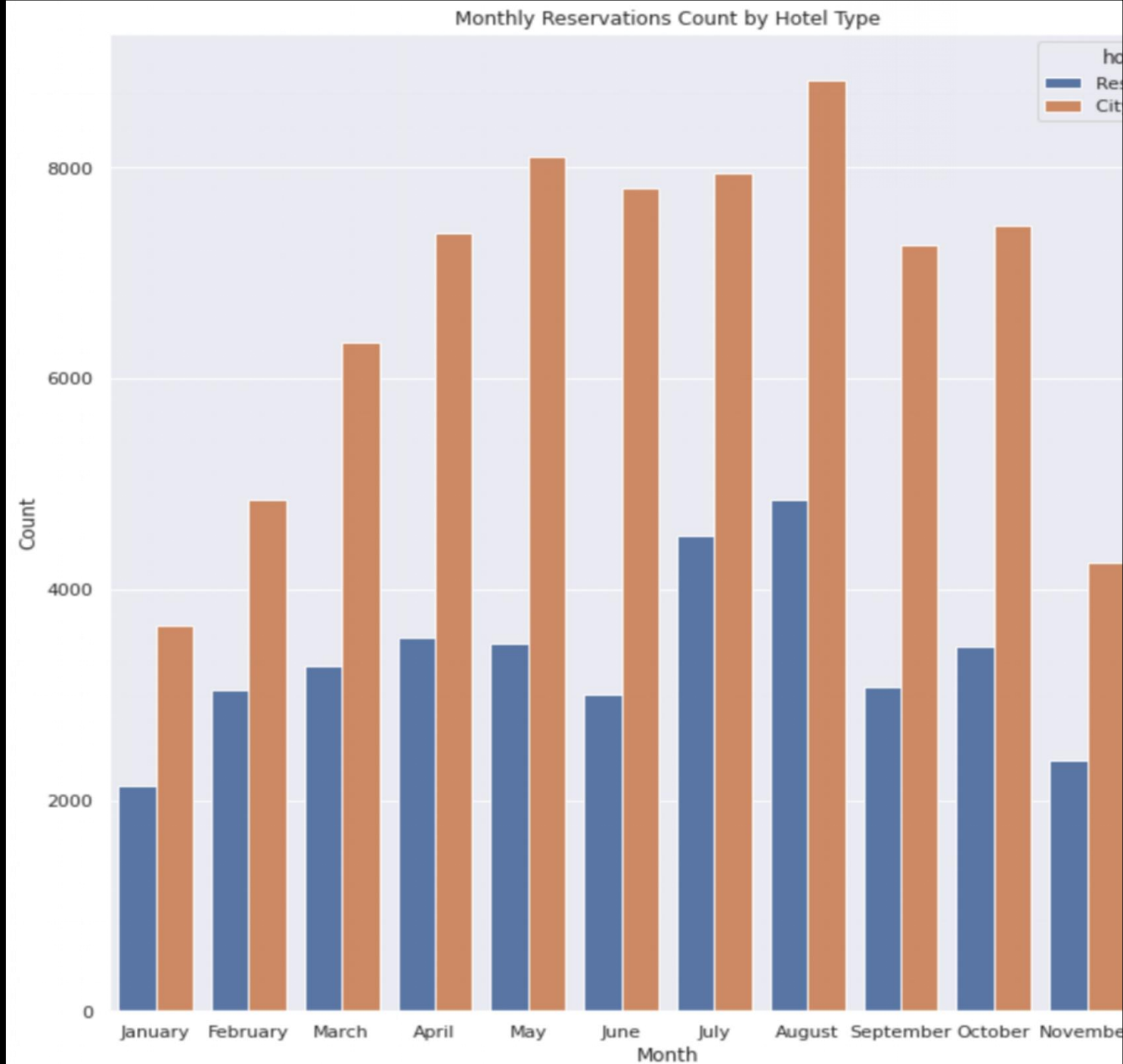


Cancellation count :-

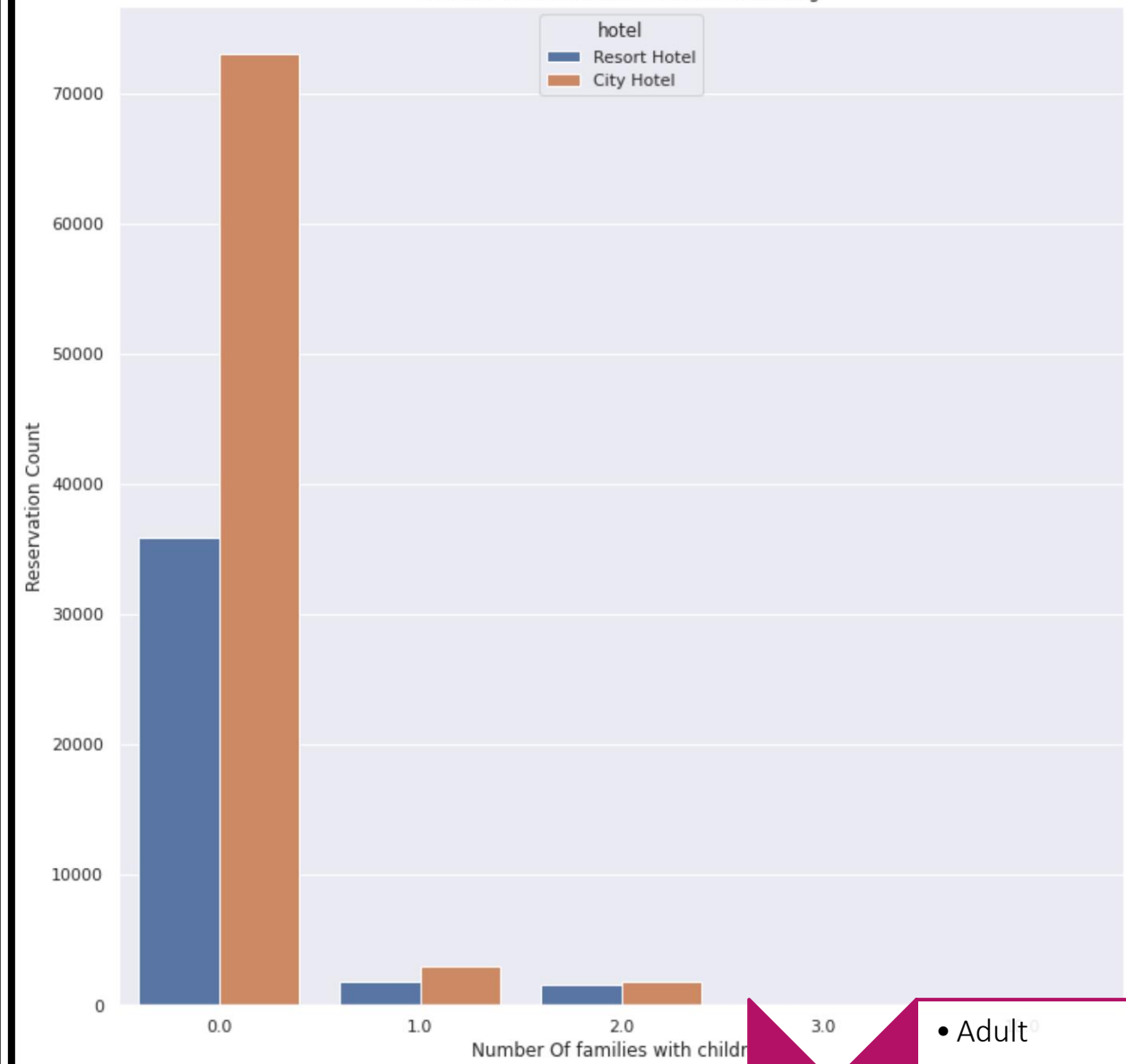
City hotel has more cancellations compare to Resort hotel.



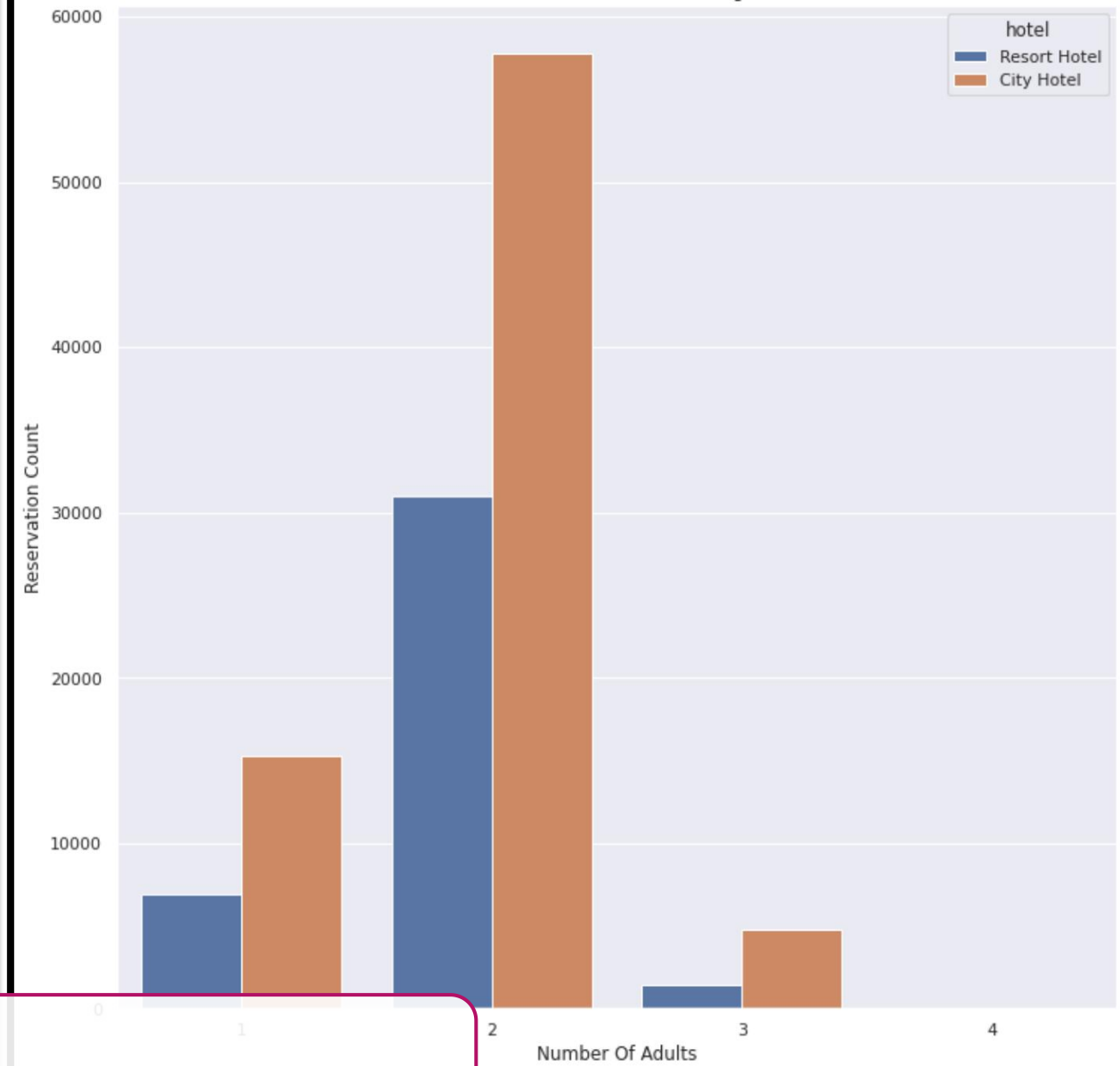
Monthly Reservation Count



Number Of families with Children Reserving



Number Of Adults Reserving



Number of

- Adult
- Children
- Families

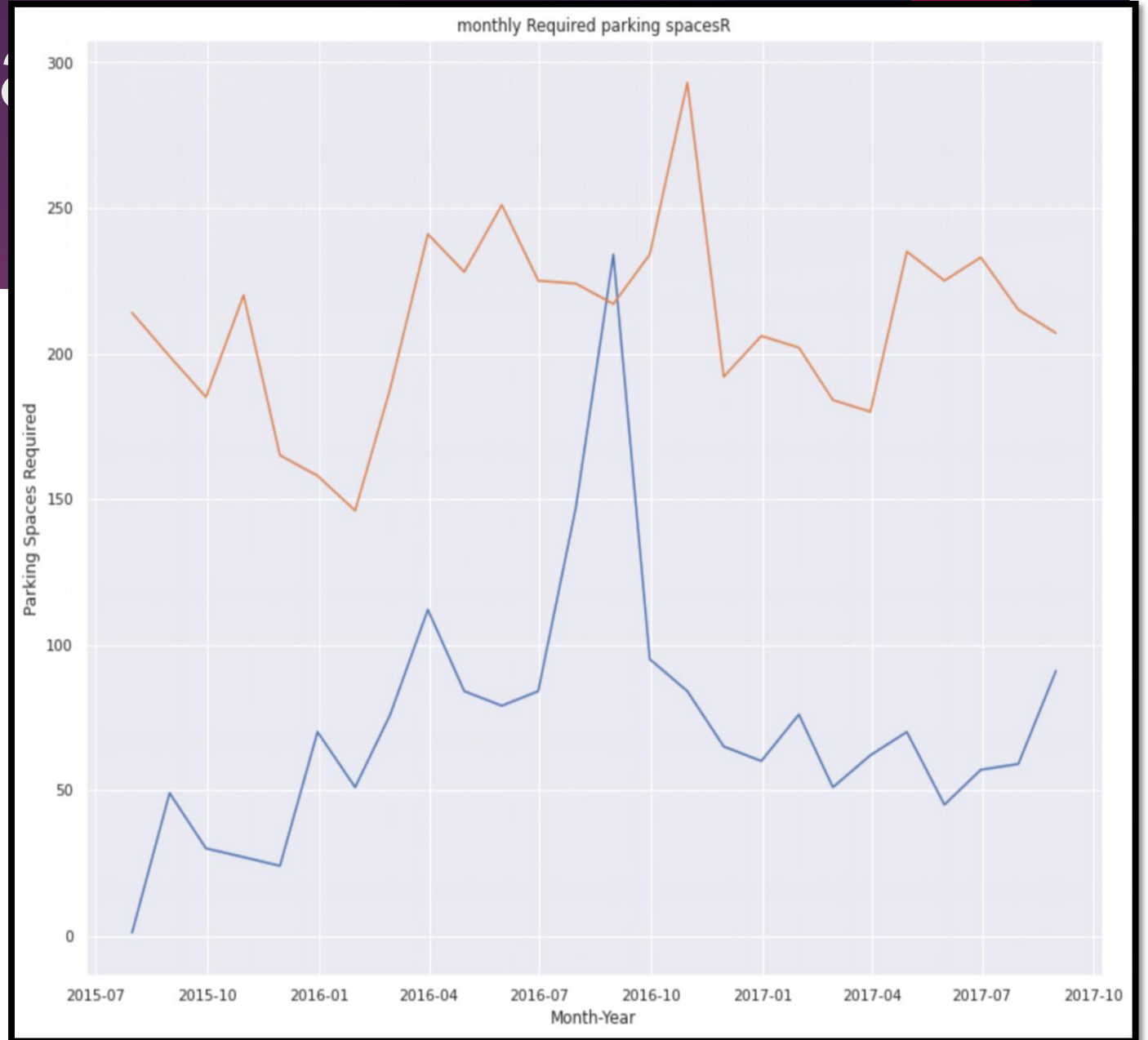
Month wise customer frequency.

- Resort Hotel have more quantum as a families compared to city hotel.
- wise versa city hotel have more customers/quantum



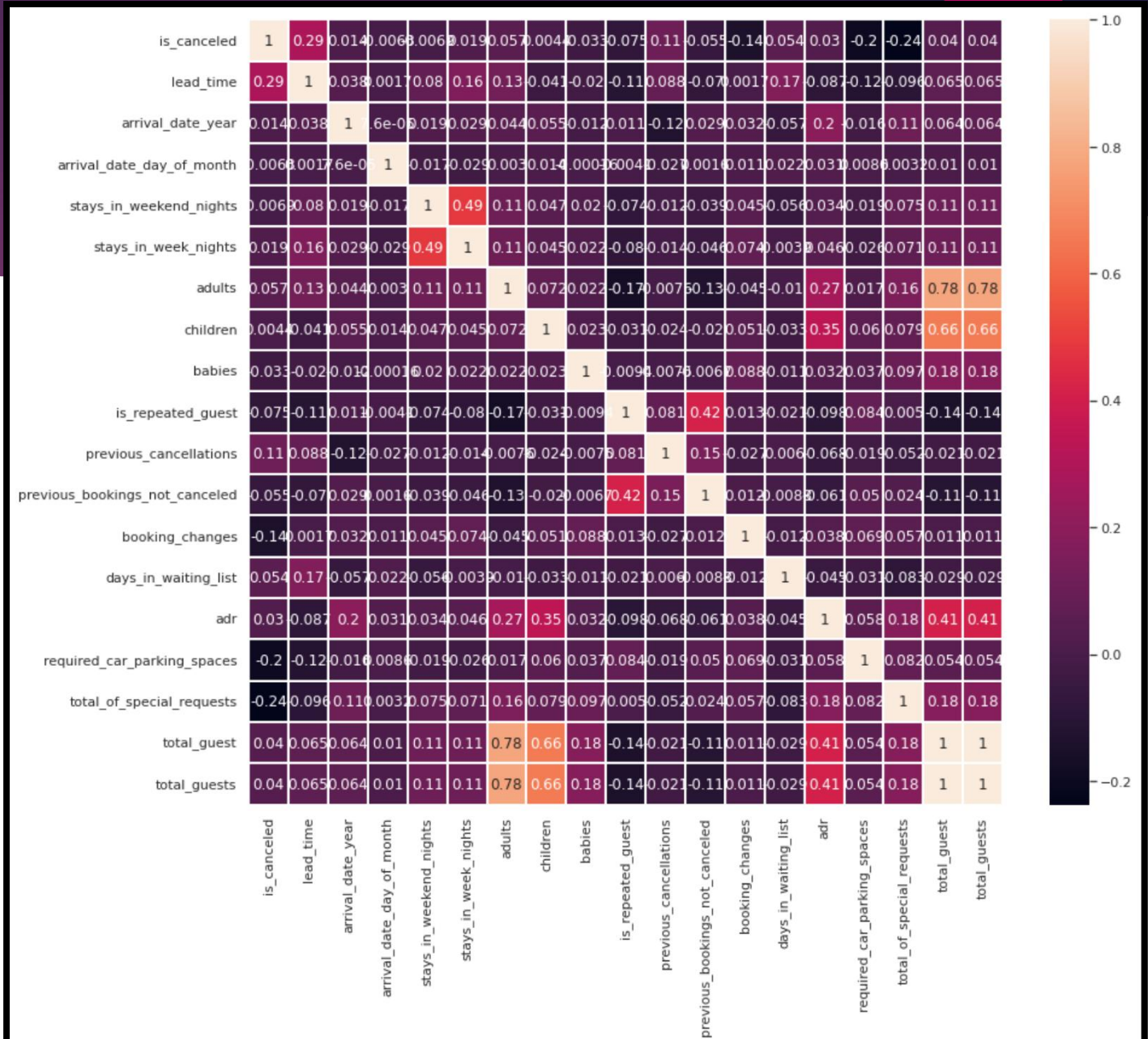
Car parking spaces

Due to maximum booking
City hotel must
have more
parking spaces
compare to
resorts.



Heatmap.

- I. Lead time and total stay is similar .
- II. Repeated guests are more.
- III. Previous booking not cancelled is similar with repeated guests because not more



v . Challenges.

- Huge chunk of data was to be handled keeping in mind not to miss anything which is even of little relevance.
- Computation time.
- Feature selection quite challenges.

VI . Conclusion

This project contains the data records of city hotel and resort hotel details like booking , cancellations guests details etc. From 2015 to 2017.

1) **City hotel has more reservation** than resort hotel.

2) **City hotel has more**

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 117182 entries, 2 to 119
Data columns (total 32 columns):
 #   Column
---  ---
 0   hotel
 1   is_canceled
 2   lead_time
 3   arrival_date_year
 4   arrival_date_month
 5   arrival_date_week_number
 6   arrival_date_day_of_month
 7   stays_in_weekend_nights
 8   stays_in_week_nights
 9   adults
10   children
11   babies
12   meal
13   country
14   market_segment
15   distribution_channel
16   is_repeated_guest
17   previous_cancellations
18   previous_bookings_not_canceled
19   reserved_room_type
```



Continue....

3) Resort hotels are choice for **large groups / families.**

4) City hotel has **more guests in August** and resort hotel also has more guests in August.

5) **High business** - March to October



Continue....

7) More number of people in guests results in more number of **special requests**.

8) In 2016 city hotel **parking reached 300** and resort hotel has surge parking.

***THANK
YOU...***