



EDA CAPSTONE PROJECT

HOTEL BOOKING ANALYSIS

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PROBLEM STATEMENT

Have you ever wondered when the best time of year to book a hotel room is? Or the optimal length of stay in order to get the best daily rate? What if you wanted to predict whether or not a hotel was likely to receive a disproportionately high number of special requests? This hotel booking dataset can help you explore those questions!

This data set contains booking information for a city hotel and a resort hotel, and includes information such as when the booking was made, length of stay, the number of adults, children, and/or babies, and the number of available parking spaces, among other things. All personally identifying information has been removed from the data.

Explore and analyze the data to discover important factors that govern the bookings.

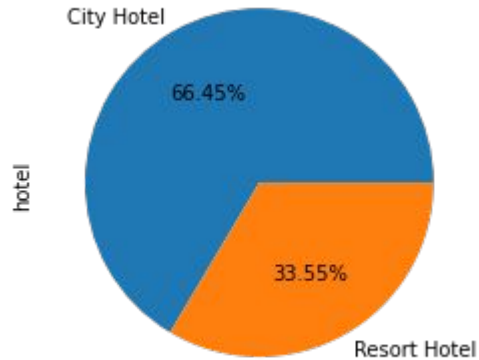
APPROACH USED

- DATA WRANGLING
- REPLACING NULL VALUES WITH ZERO.
- REMOVED COLUMN (COMPANY) WITH TOO MANY NULL VALUES.
- YEAR WISE COMPARISON OF HOTEL BOOKINGS.
- MONTH WISE COMPARISON OF HOTEL BOOKING, CANCELLATIONS, BABIES AS GUEST.
- TOTAL NUMBER OF SPECIAL REQUESTS HOTEL WISE , MONTH WISE.
- NIGHT STAYS ANALYSIS ,SHORT AND LONG STAYS.
- BOOKING TYPE ANALYSIS.

HOTEL WISE STAY

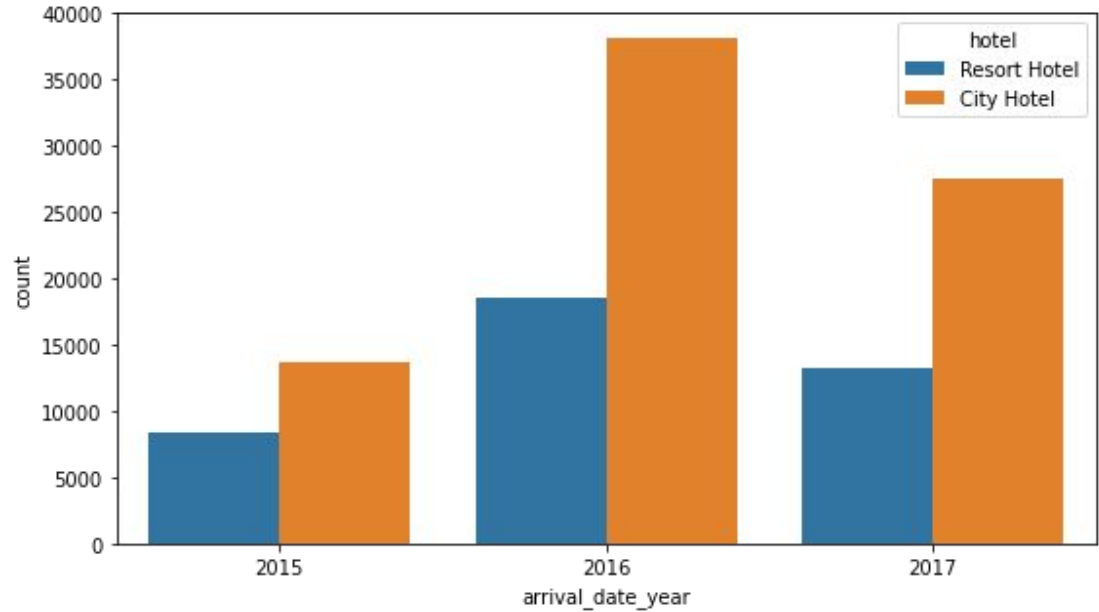
City hotel=66.45%

Resort hotel=33.55%



YEAR WISE COMPARISON

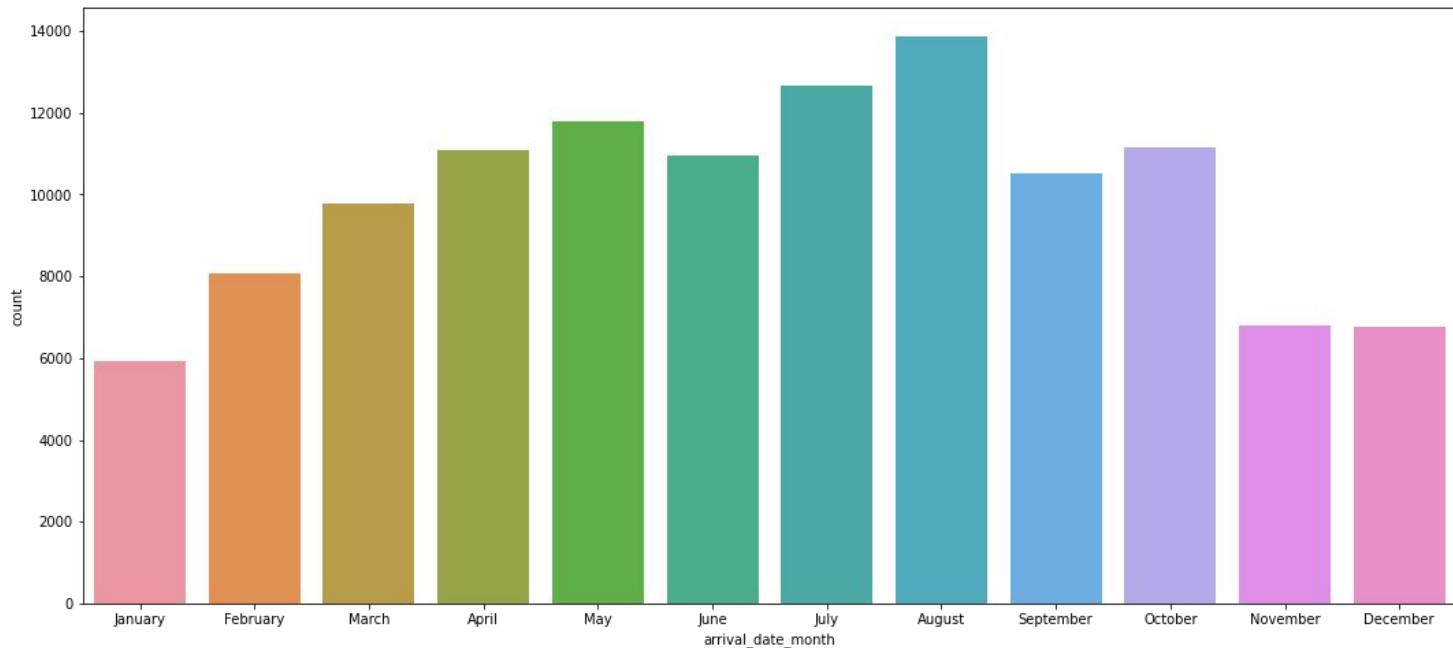
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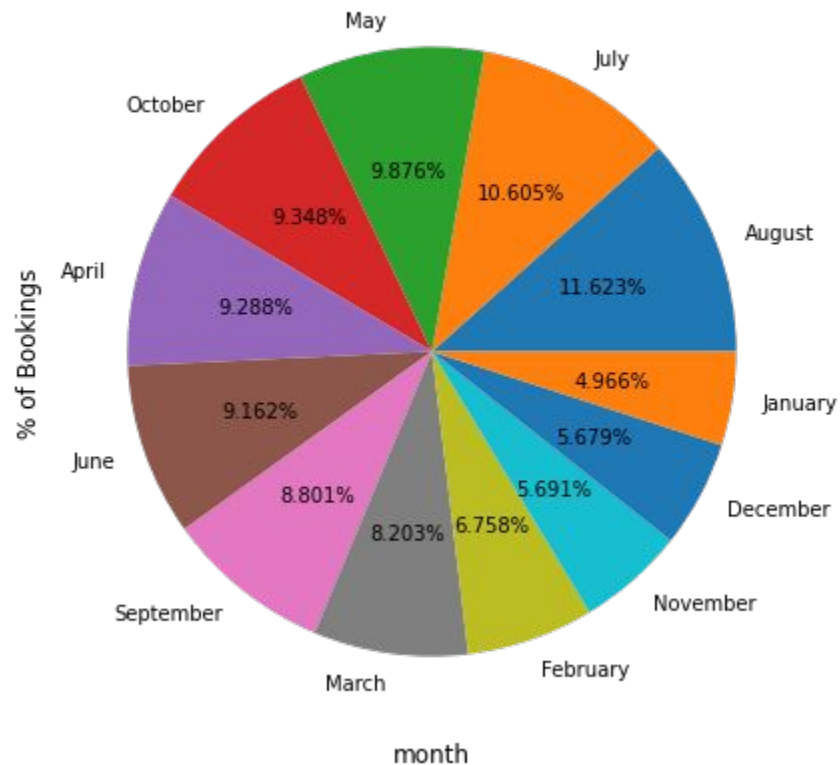
MONTH WISE COMPARISON

August has most bookings.

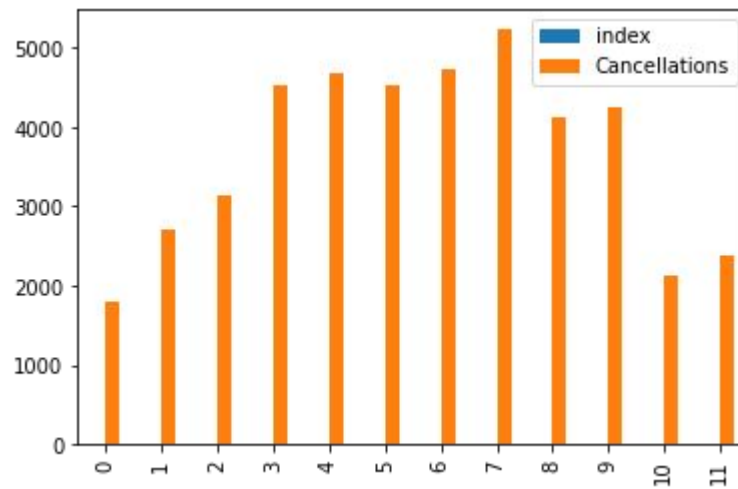
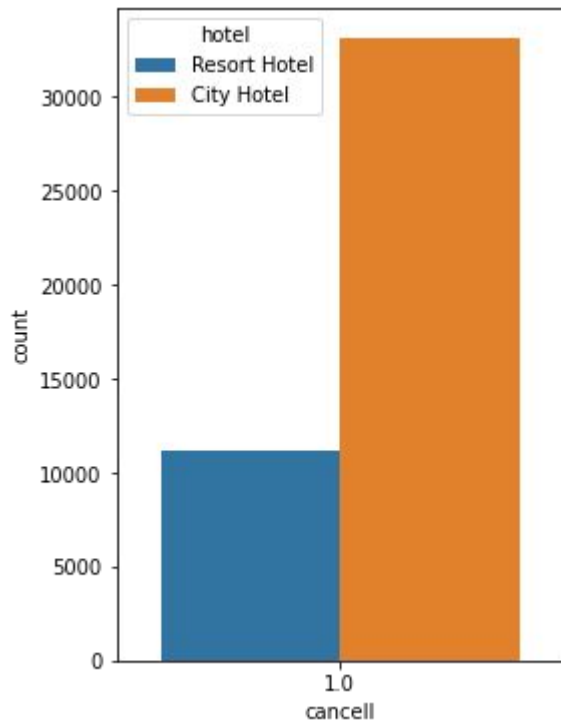


Month wise comparison

% OF BOOKINGS



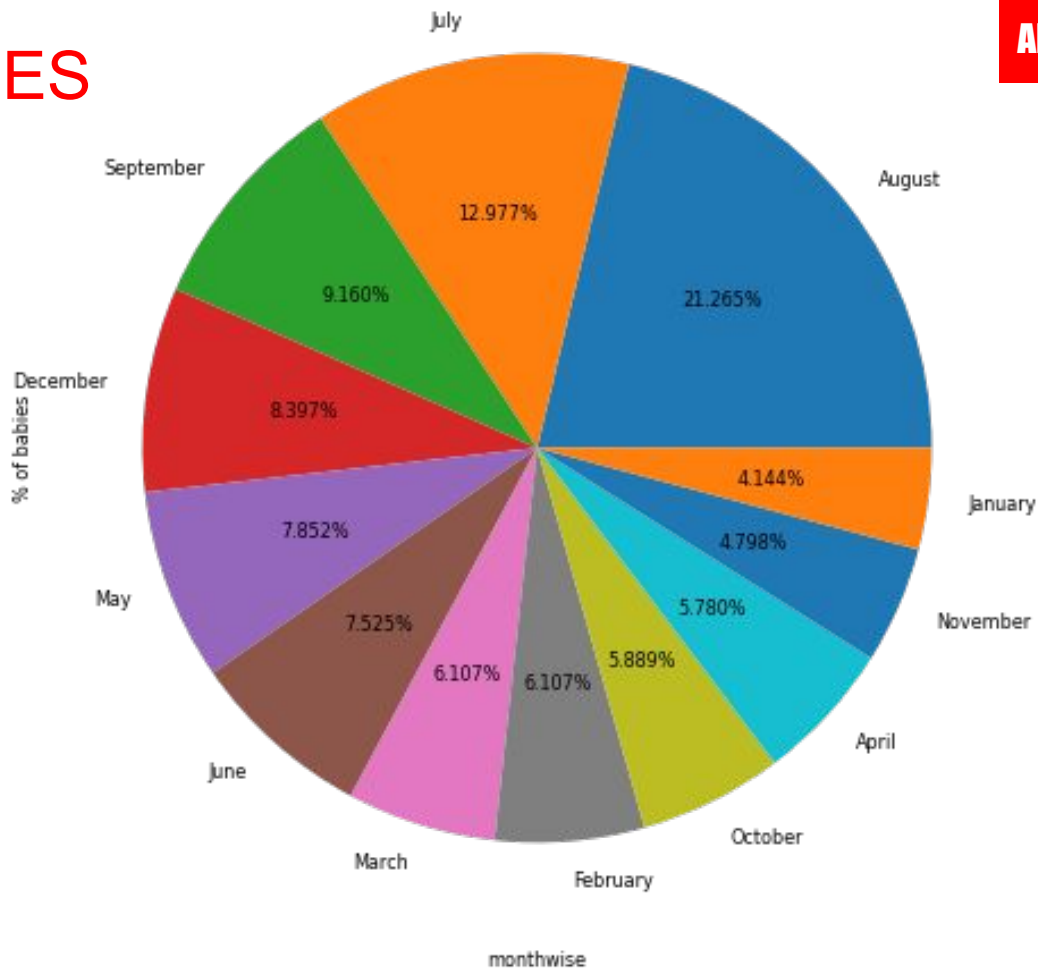
HOTEL WISE CANCELLATIONS



CANCELLATIONS MONTH WISE

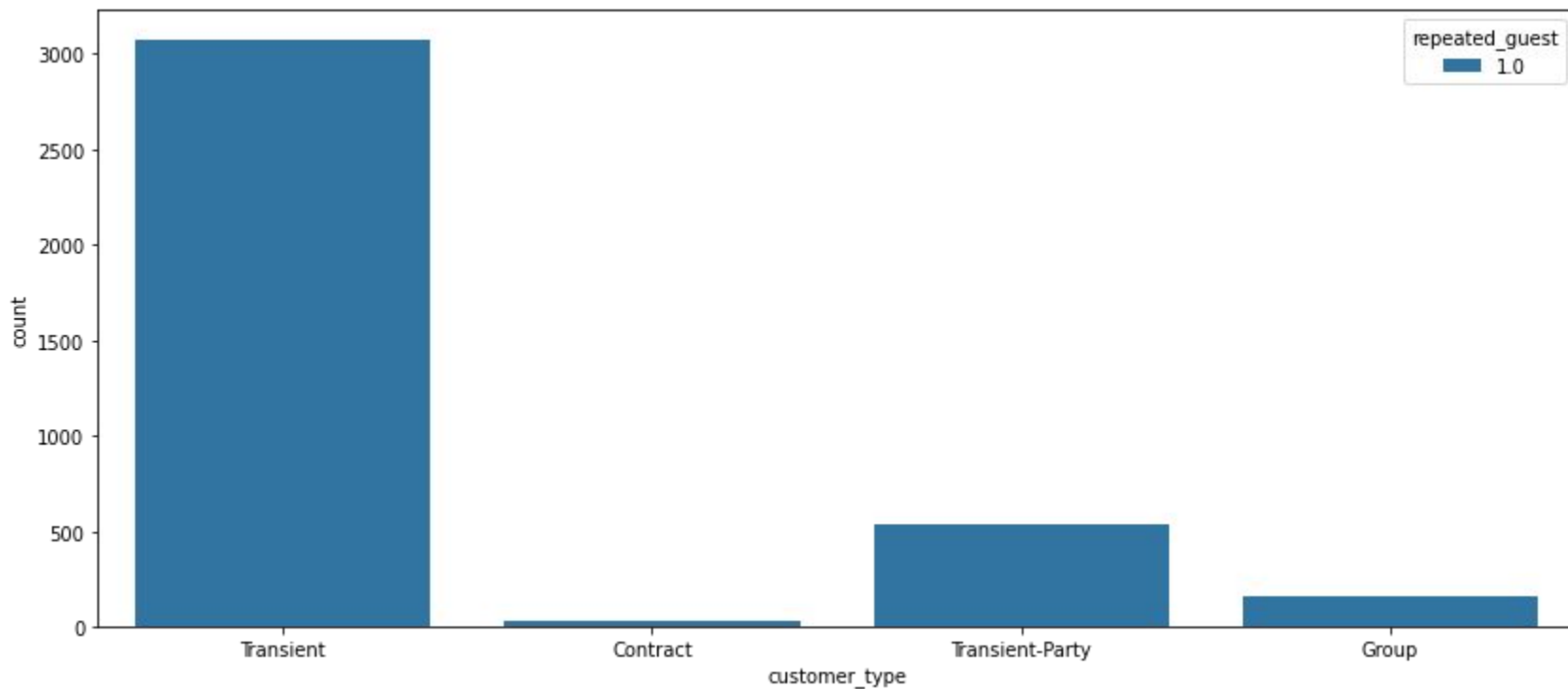
GUESTS WITH BABIES

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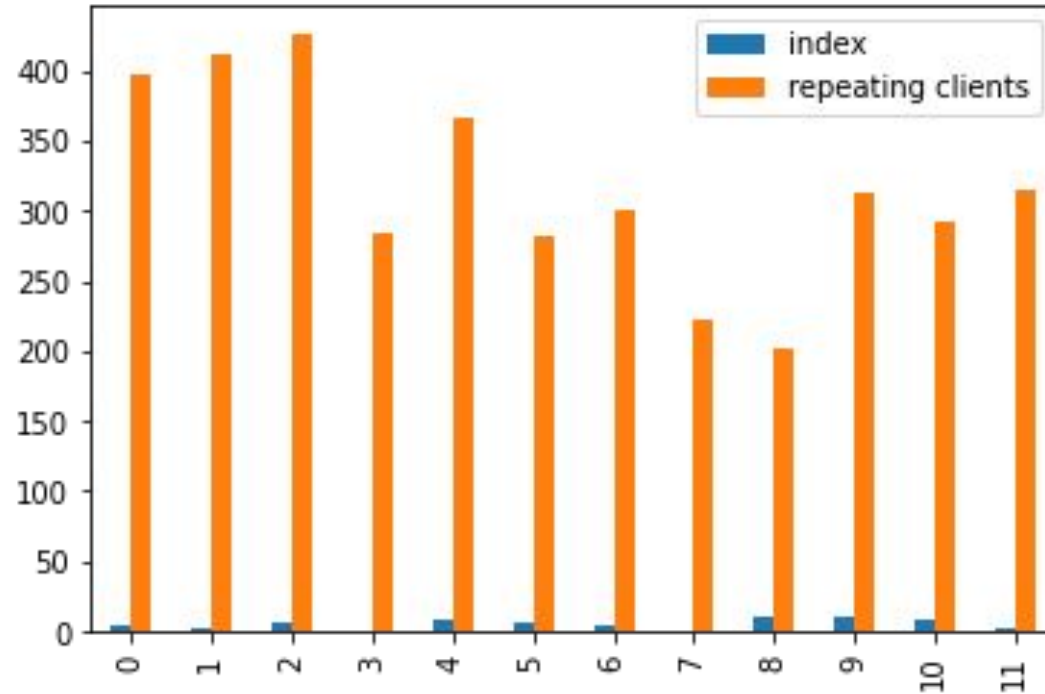
TYPES OF REPEATED GUESTS

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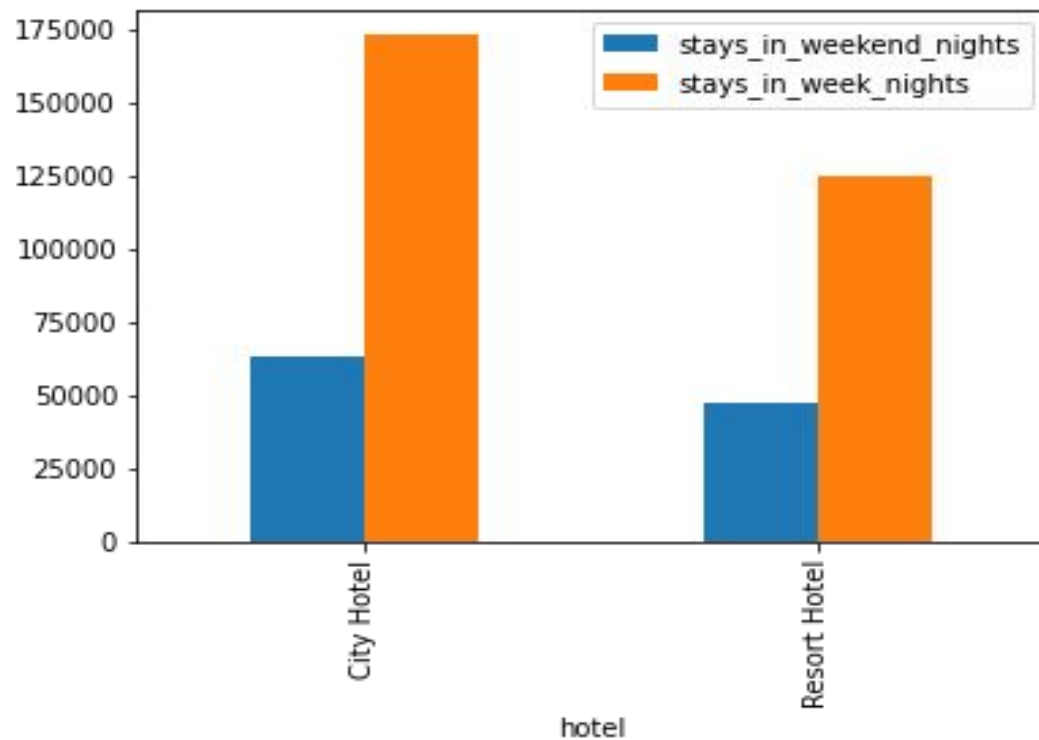
REPEATED GUESTS MONTH WISE COMPARISON

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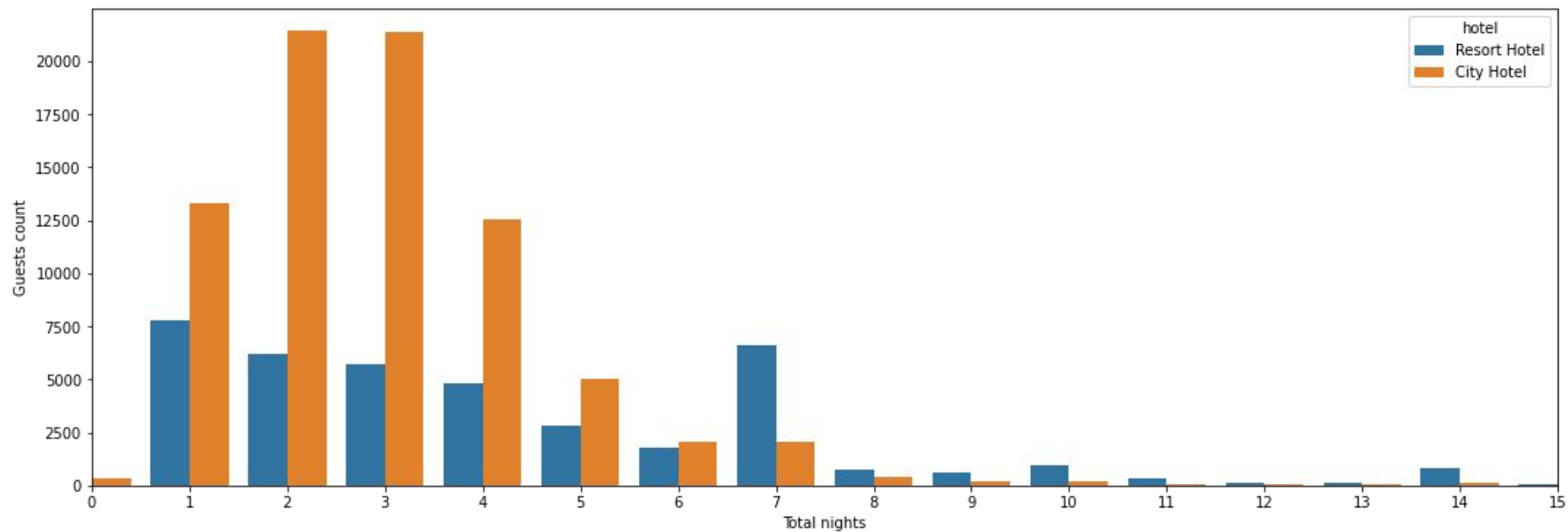


NIGHT STAYS

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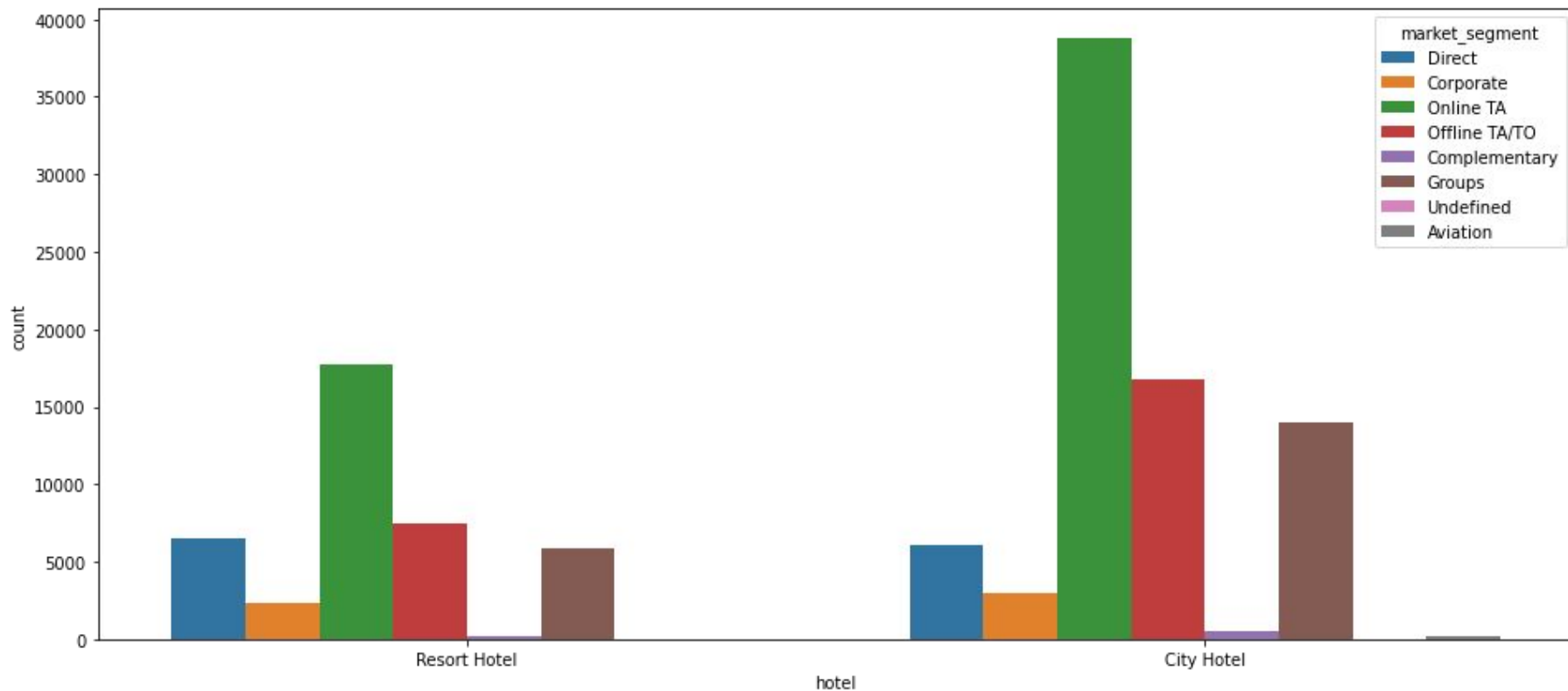


NUMBER OF NIGHTS HOTEL WISE



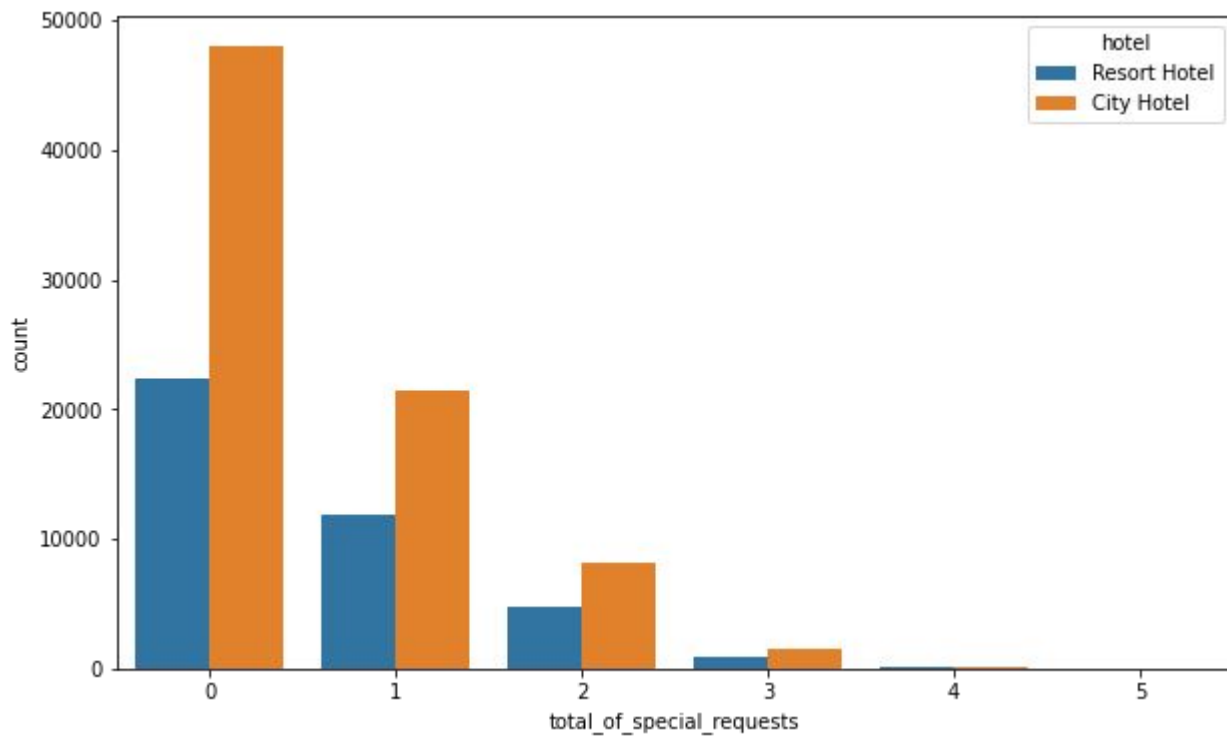


MARKET SEGMENT ANALYSIS HOTELWISE



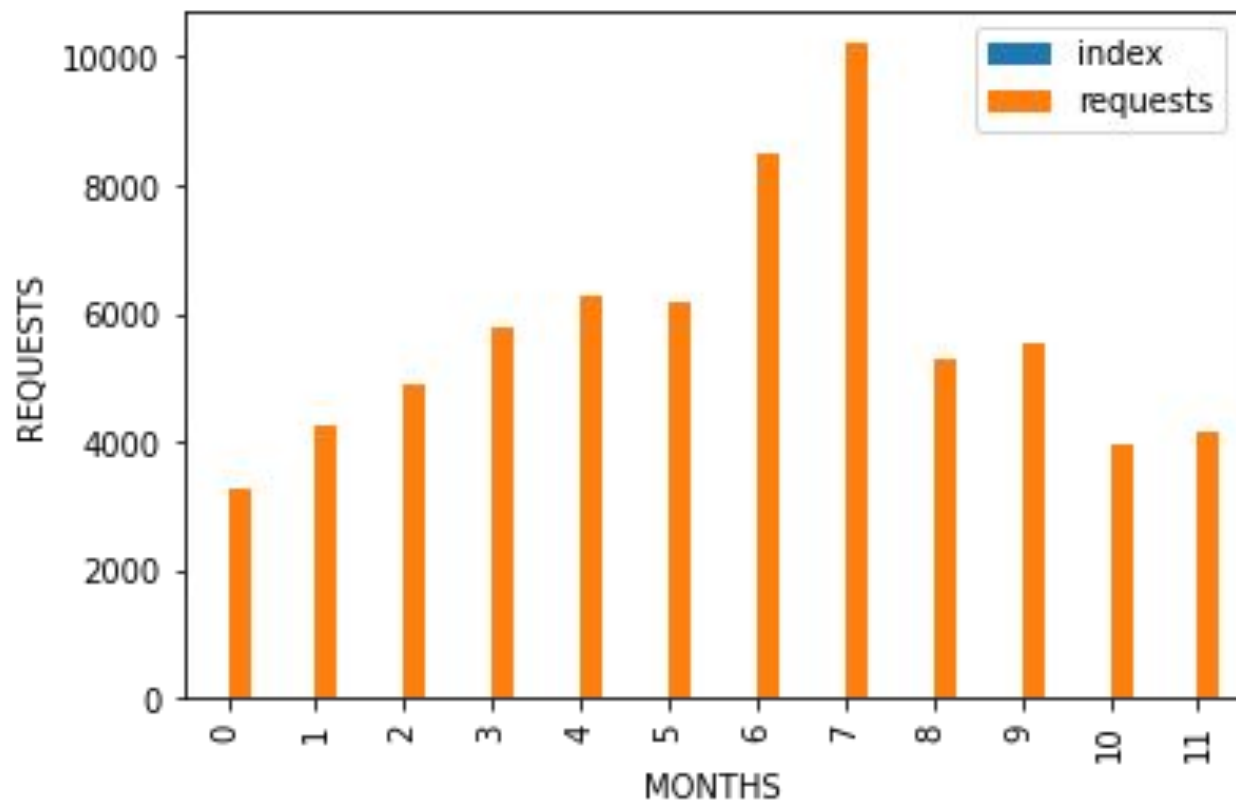
SPECIAL REQUESTS

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MONTHWISE REQUESTS

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CONCLUSIONS

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- CITY HOTELS have more bookings(66.45%)
- 2016 has most number of bookings(47.5%), which went down to 34.1% in the year 2017
- The month of August has most number of guests 11.62% , the second quarter Q2 and the third quarter Q3 has most number of bookings.
- Most guests are from Portugal and then from United Kingdom.
- City hotels has more cancellations.
- Most cancellations take place in the second and third quarters.
- Q3 has most number of babies among guests.
- Repeated guests percentage is more for City Hotel,most of them are transient types.
- The month of January , february and march i.e. Q1 has most numbers of repeated guests.
- City Hotels accommodate more guests who stay for week nights.
- City Hotels have crowd that is from working class and business trips as they are staying week nights,and for shorter durations.
- For longer stays (i.e. days>6) people tend to prefer Resort hotels, For Short stay people choose City Hotel.
- Online Booking is the biggest medium of Hotel Booking.
- Most number of special requests are in month of July and August. Number of special requests for City Hotel is higher than Resort Hotel.

SUGGESTIONS

- During Q3 Hotels should arrange for a doctor and baby care items for better service.
- In Q2 and Q3 the bookings are the most, therefore staff should be in full strength in these quarters.
- Hotels can put forward some discount offers in Q1 and Q4 as Bookings rate is less.
- In Q3 hotels can hire part time or contract based staff as the rush is more in this quarter.
- Hotels can promote their business online via social media channels and hiring influencers as most of the Bookings are coming from online portals.
- Repeated guests should be given a priority pass or made the member of some of priority group with perks , to retain them. Since they are mostly in Q1 which is winters , they can be given complementary hot drinks.
- City Hotel should give concessions for people staying for more than 6 days.
- Resort hotels can give complimentary gift and services (like free cabs,etc) for boosting the short stays.