

Capstone Project

Hotel Booking Analysis

NICKY GHAI
GAGAN SINGH PARIHAR
VAIBHAV JAIN

Content

- Importing and loading data of Hotel booking analysis
- Data cleaning
- Data preparation
- Data visualization
- Challenges
- Conclusion
- Suggestions

Data summary

Data set – Hotel booking analysis database includes information about the hotels booked between the year 2015 to year 2017

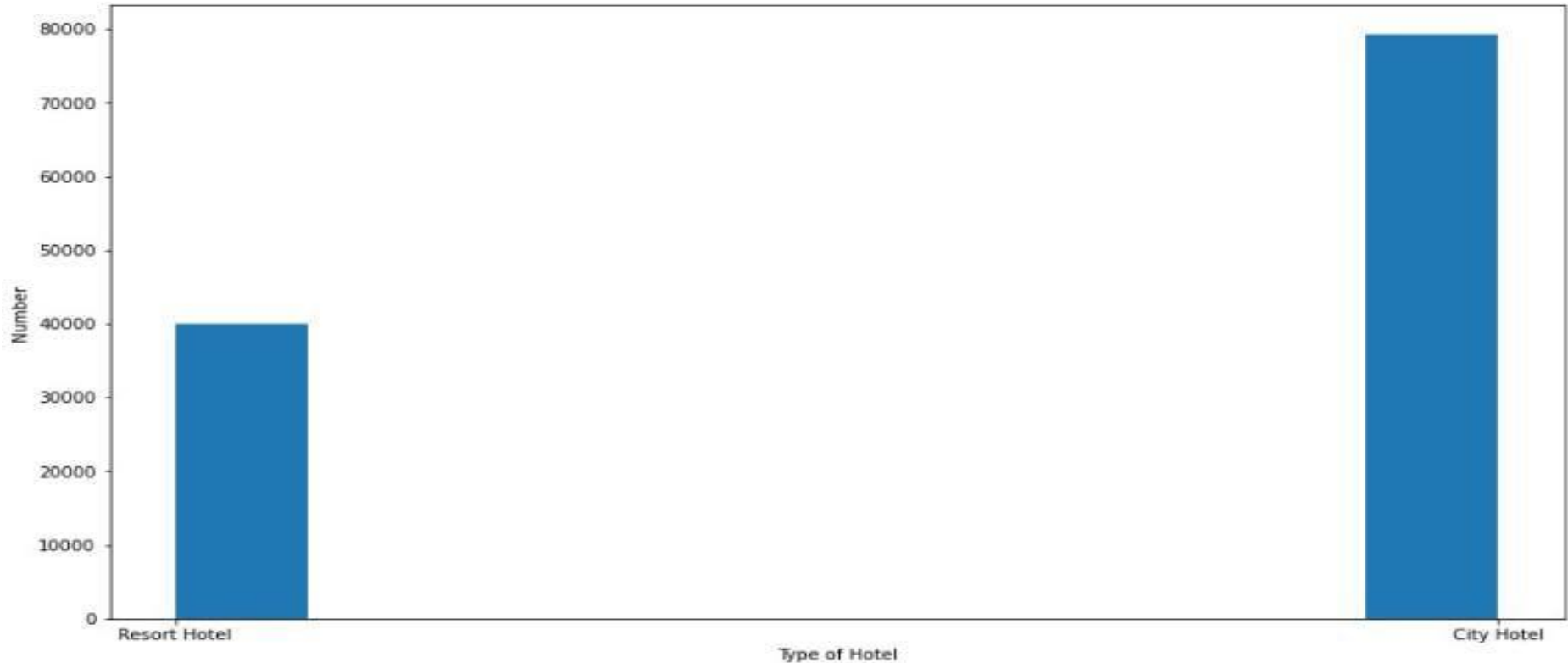
Shape:

Rows – 119390

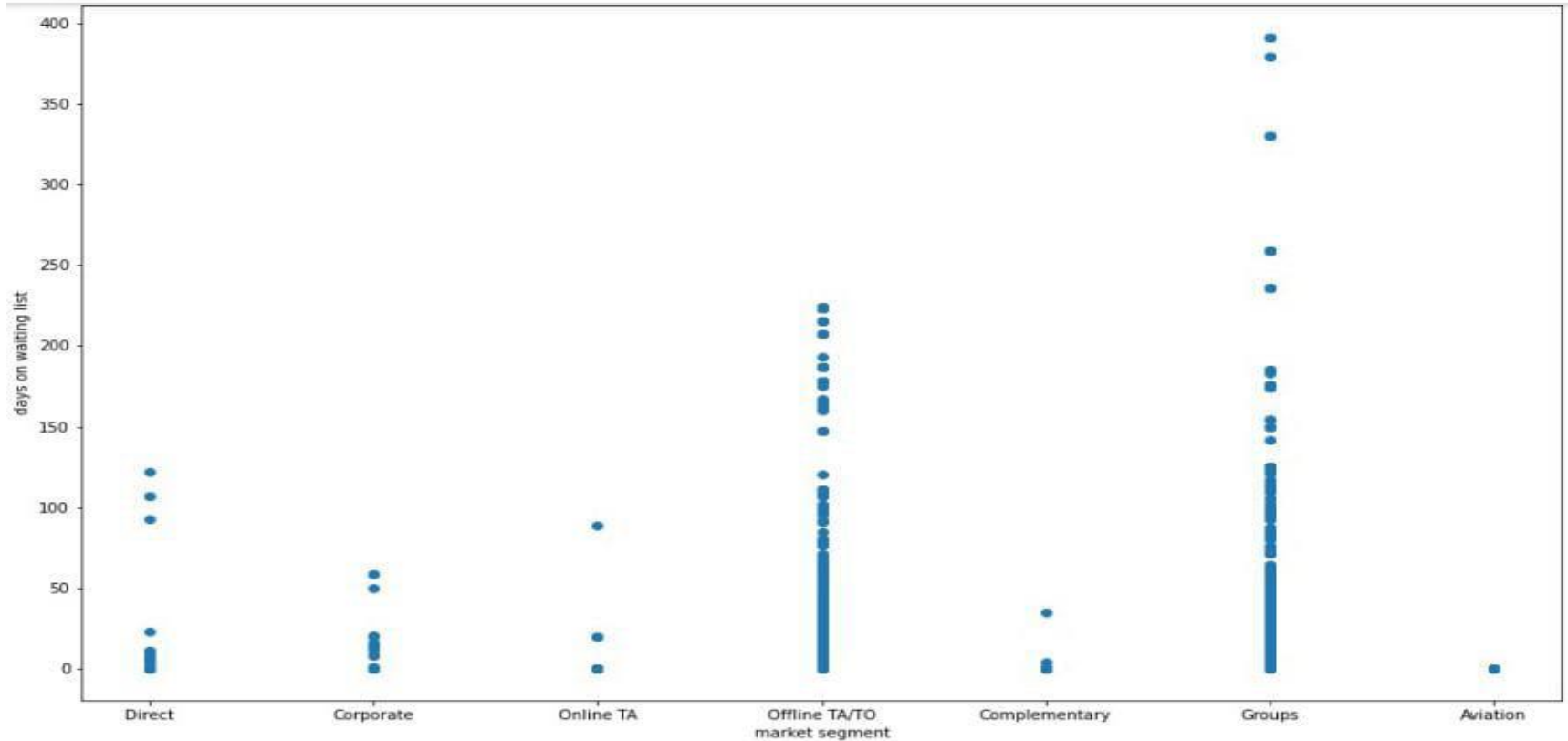
Columns – 32

Important columns- lead time, arrival date, no. of persons, repeated guest, no. of kids

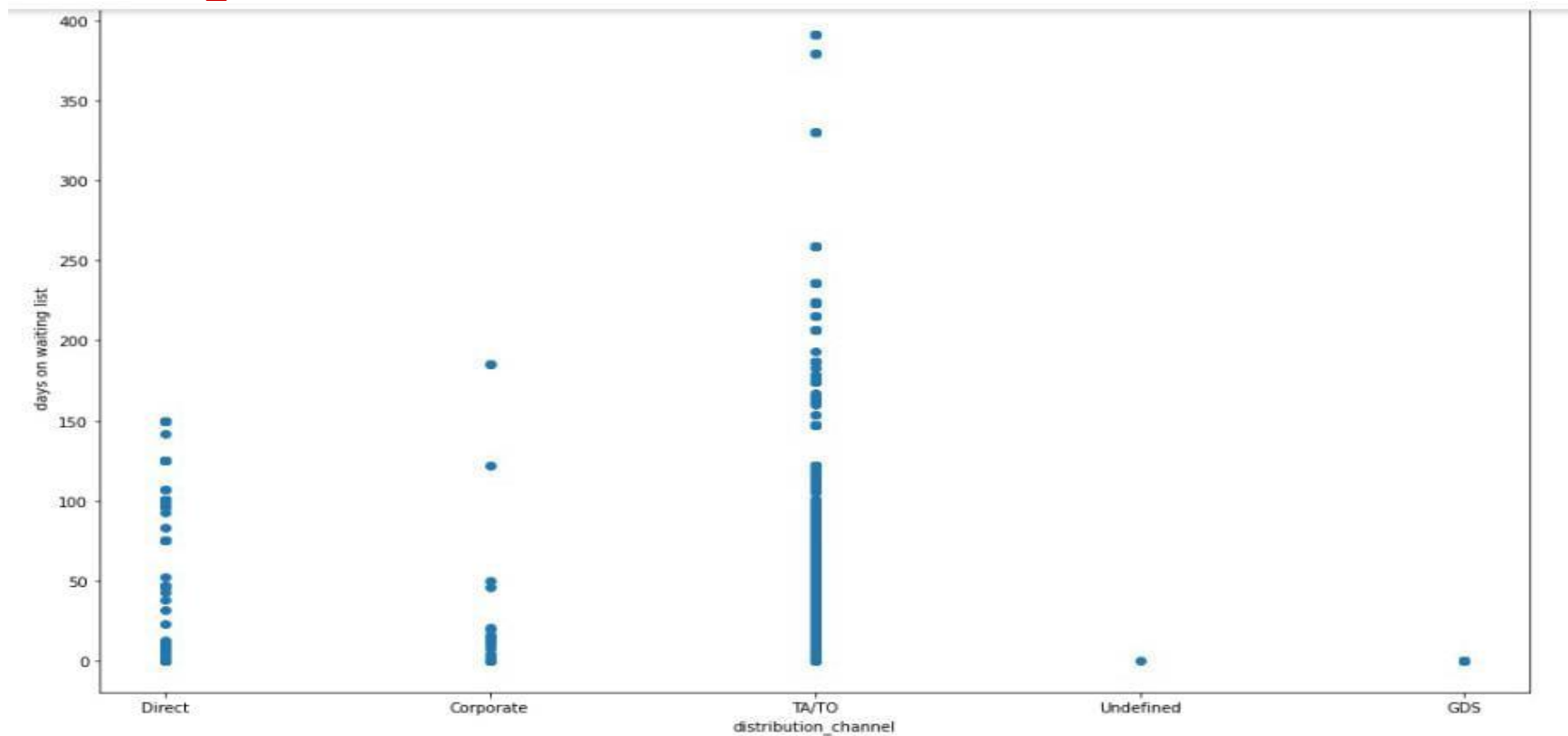
Number of Bookings for various types of hotels



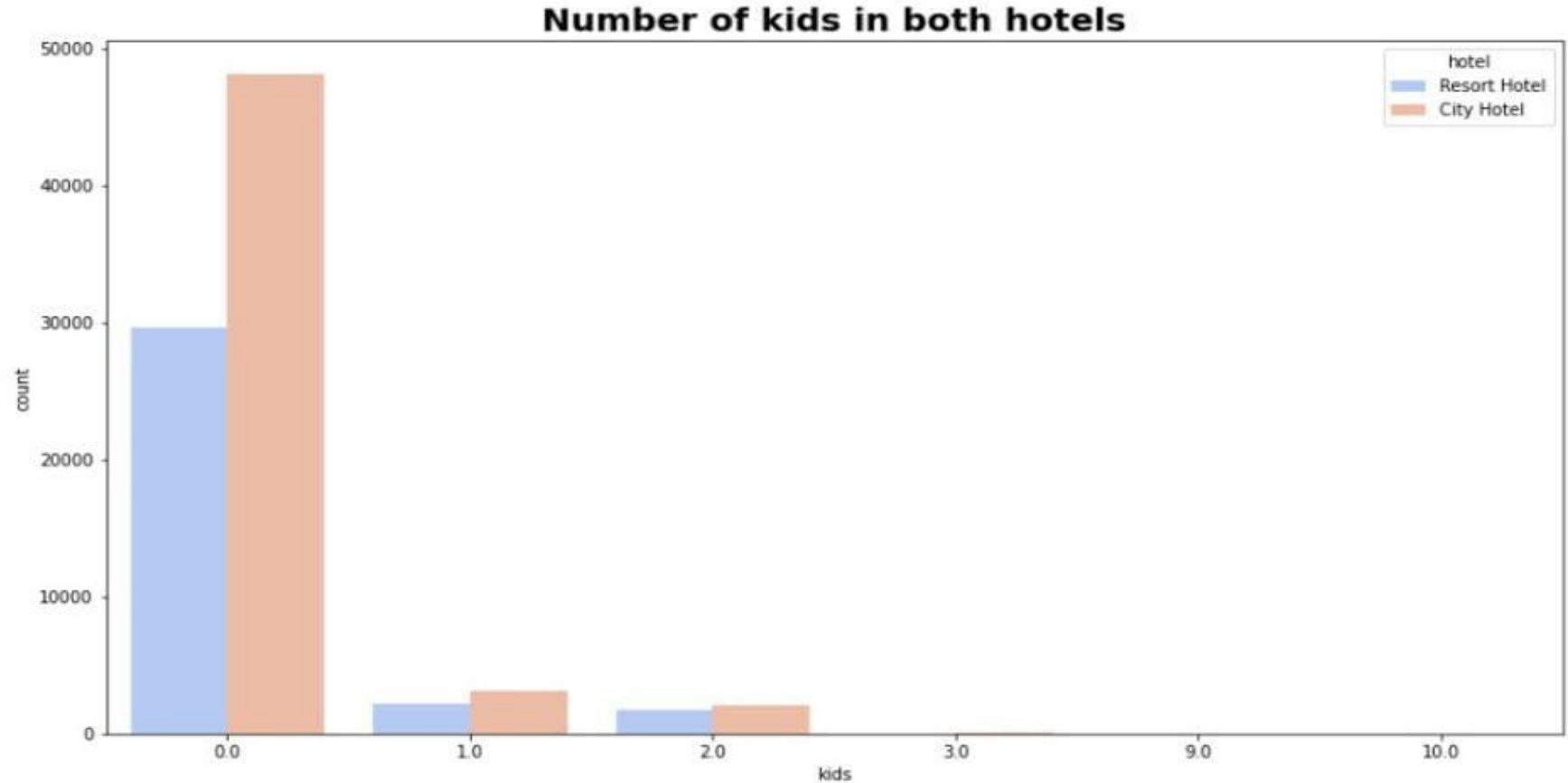
Plot between Type of market segment and Waiting list for the booking



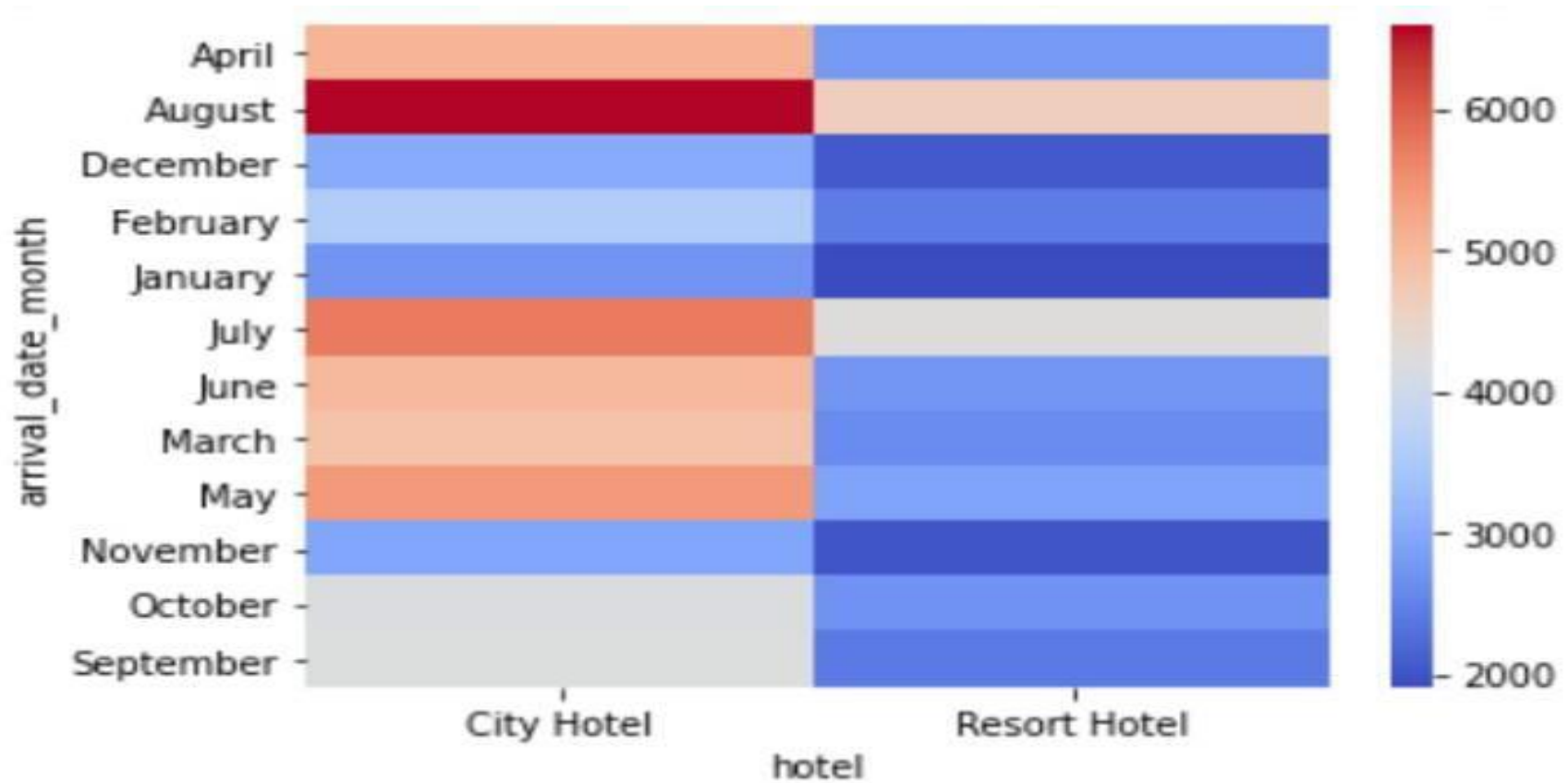
Plot between Distributing Channel and Days on the waiting



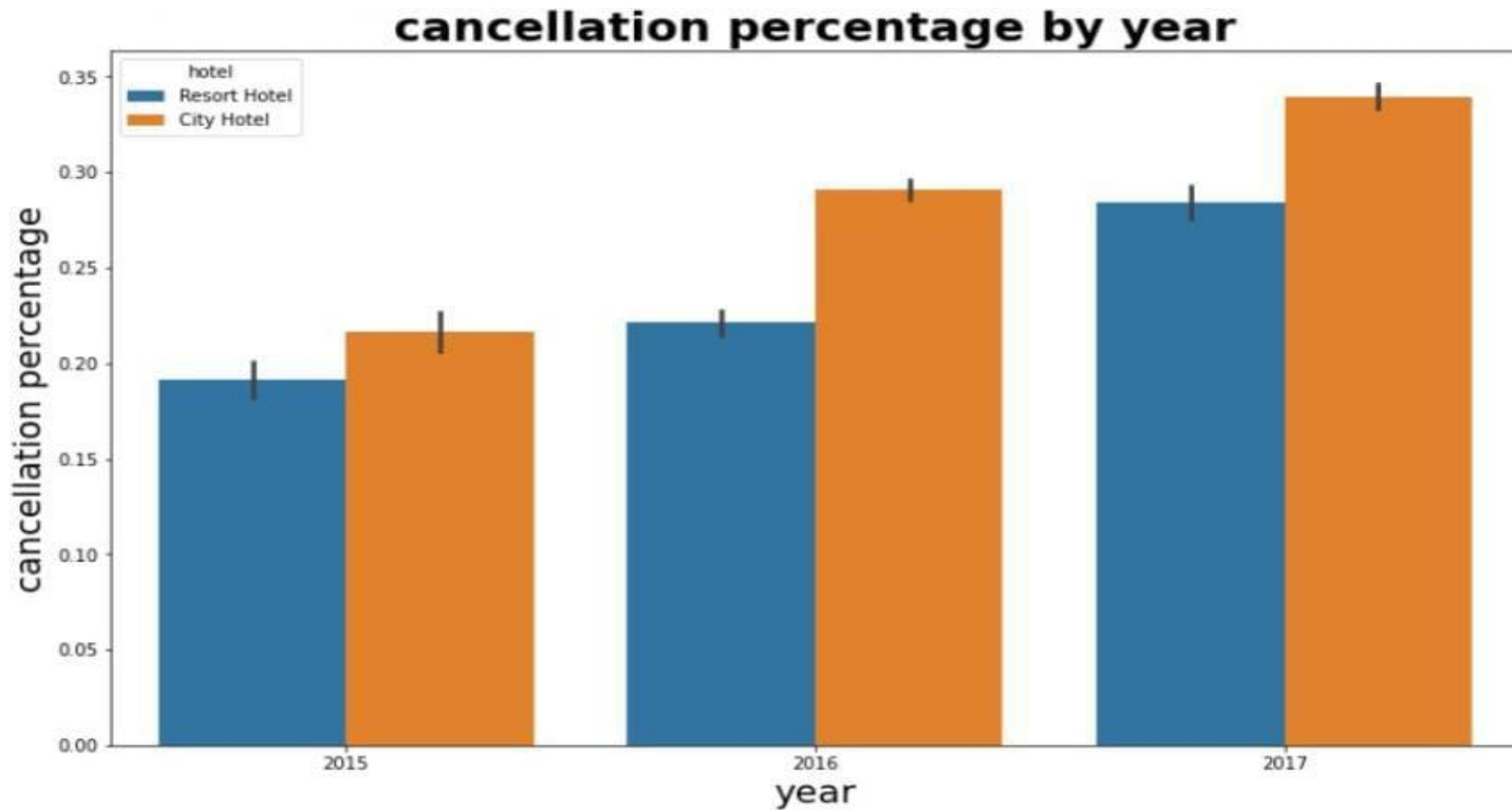
Number of kids in both hotels



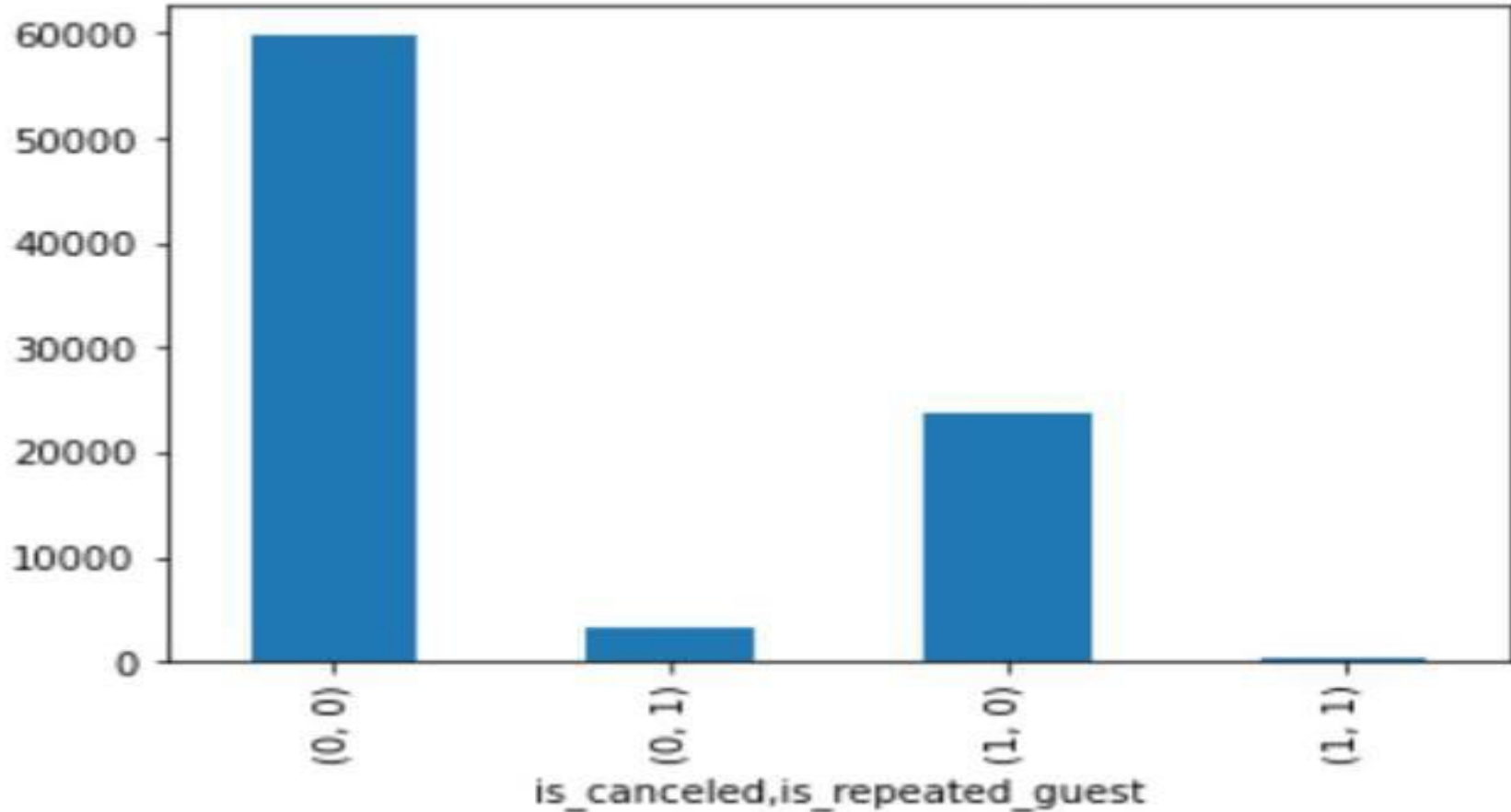
Heatmap between type of Hotel and arrival month



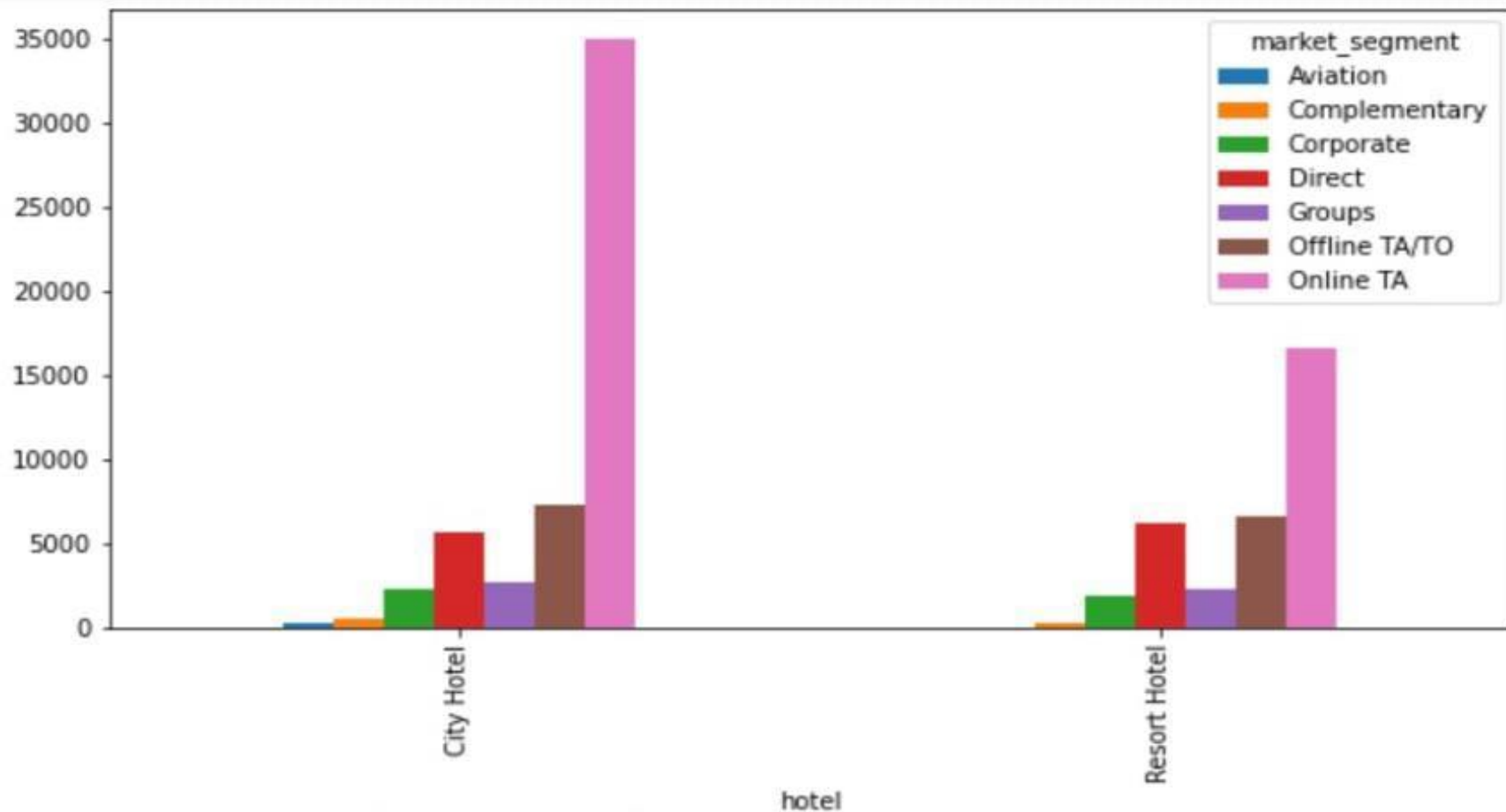
Cancellation percentage by year



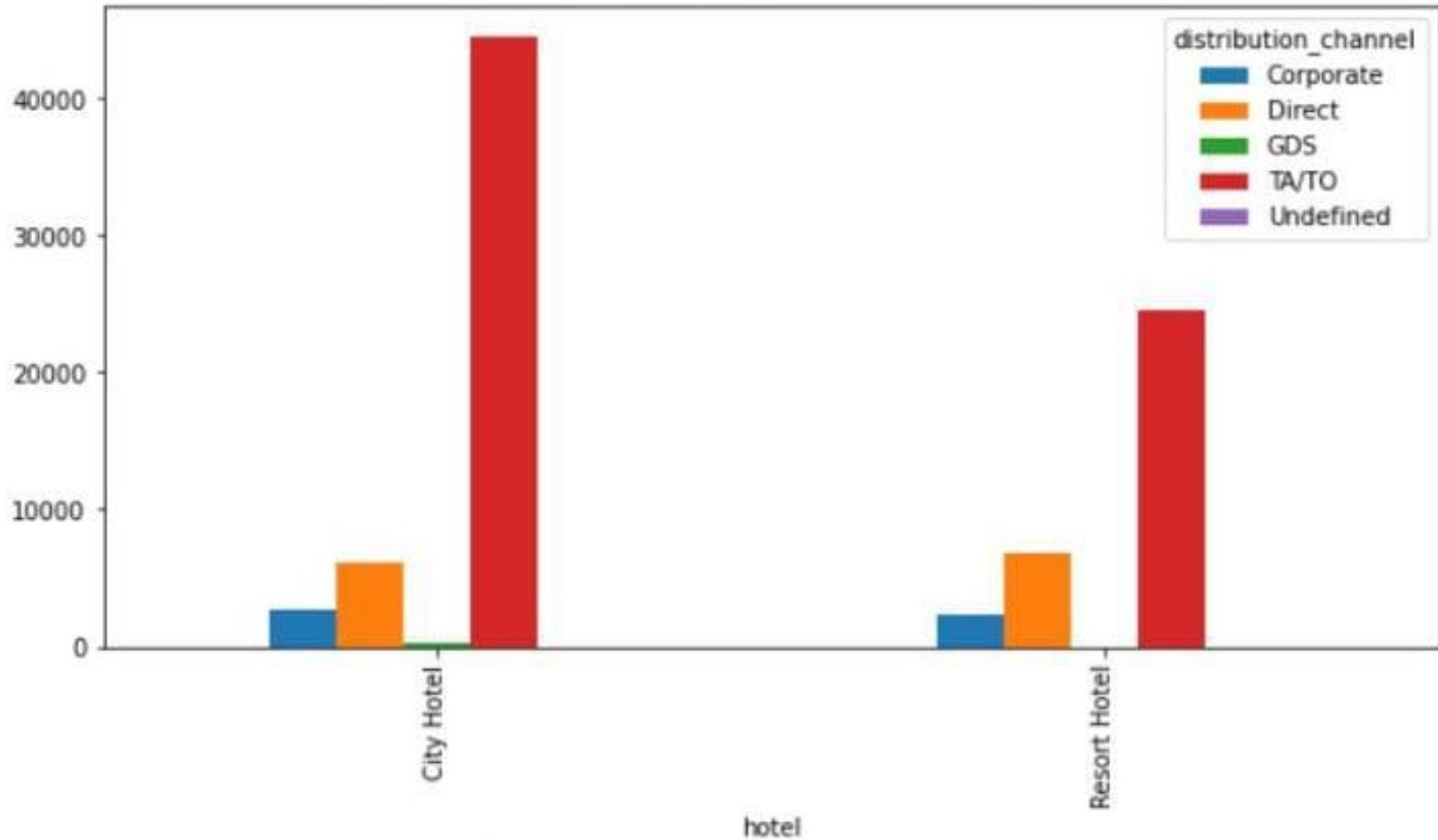
Plot between cancellation type & repeated guest



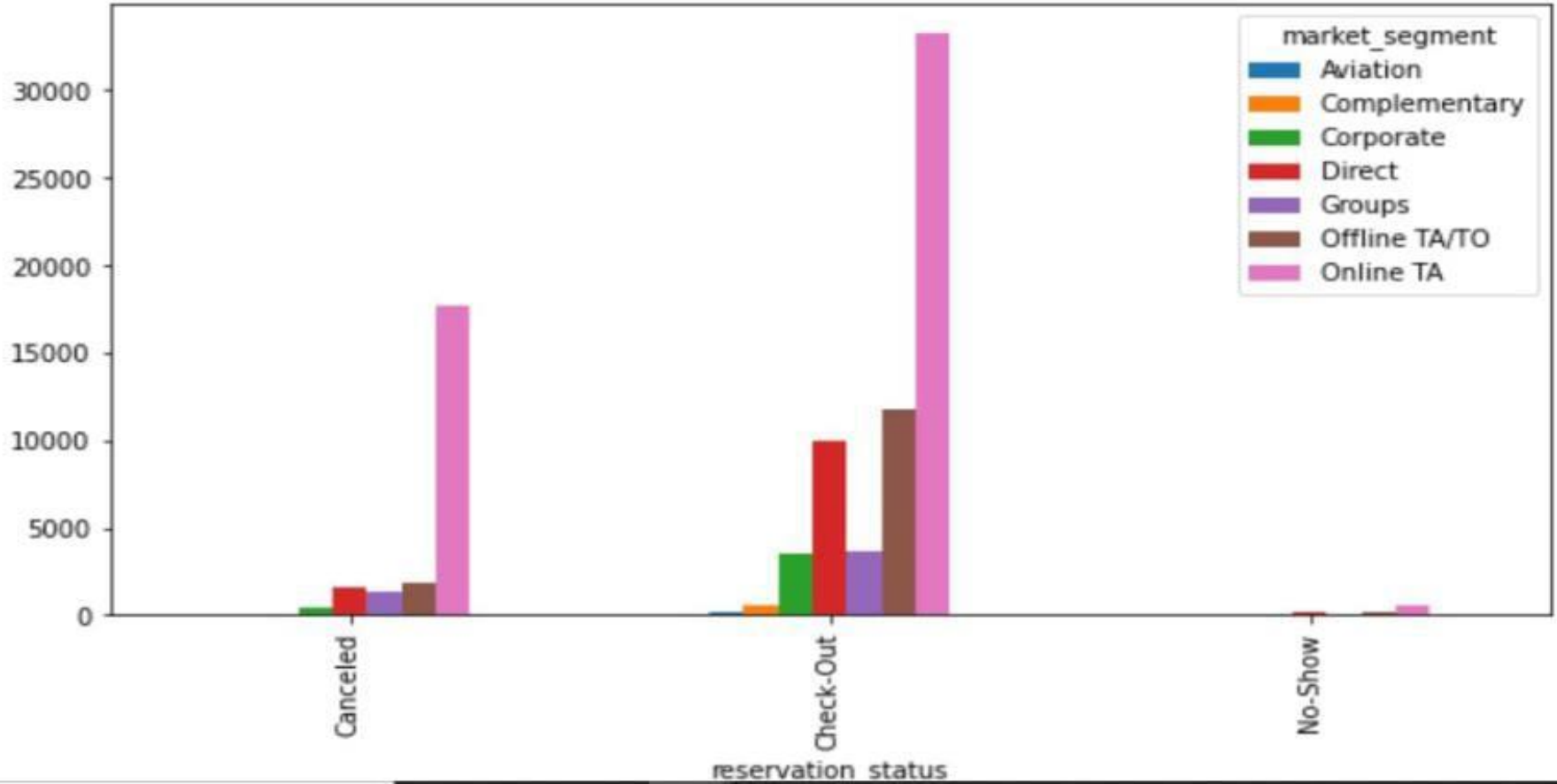
Plot between hotel and market segment



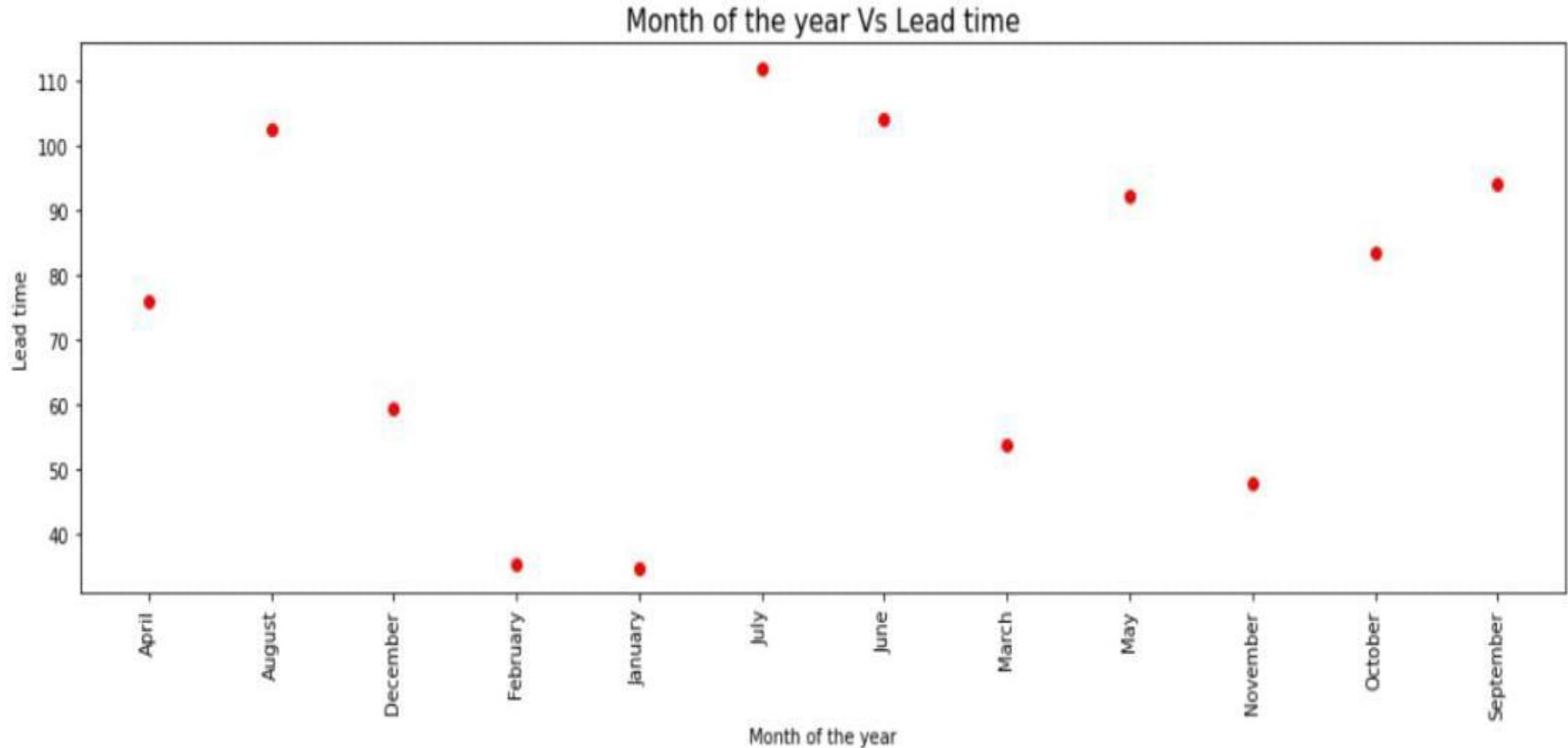
Plot between hotel and distribution channel



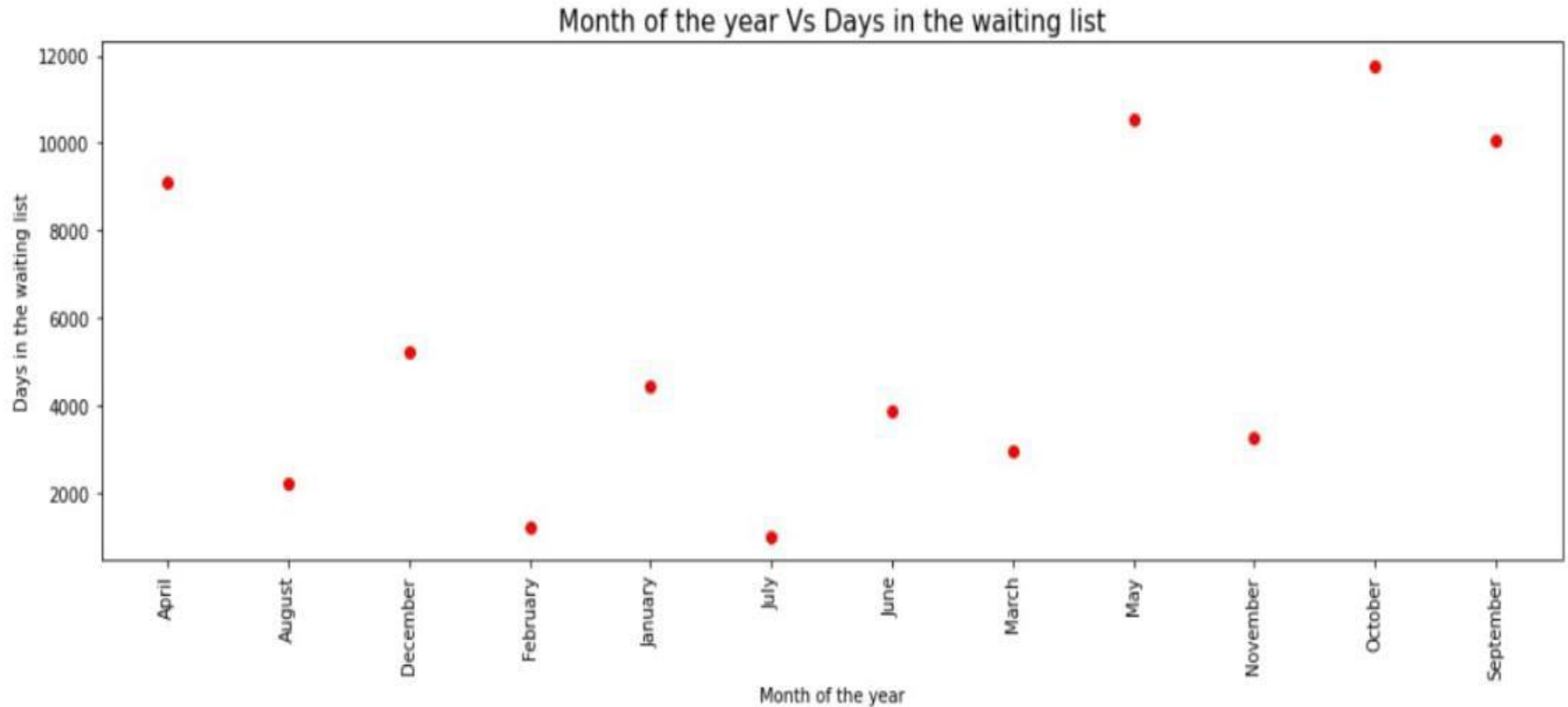
Plot between resevation status and market segment



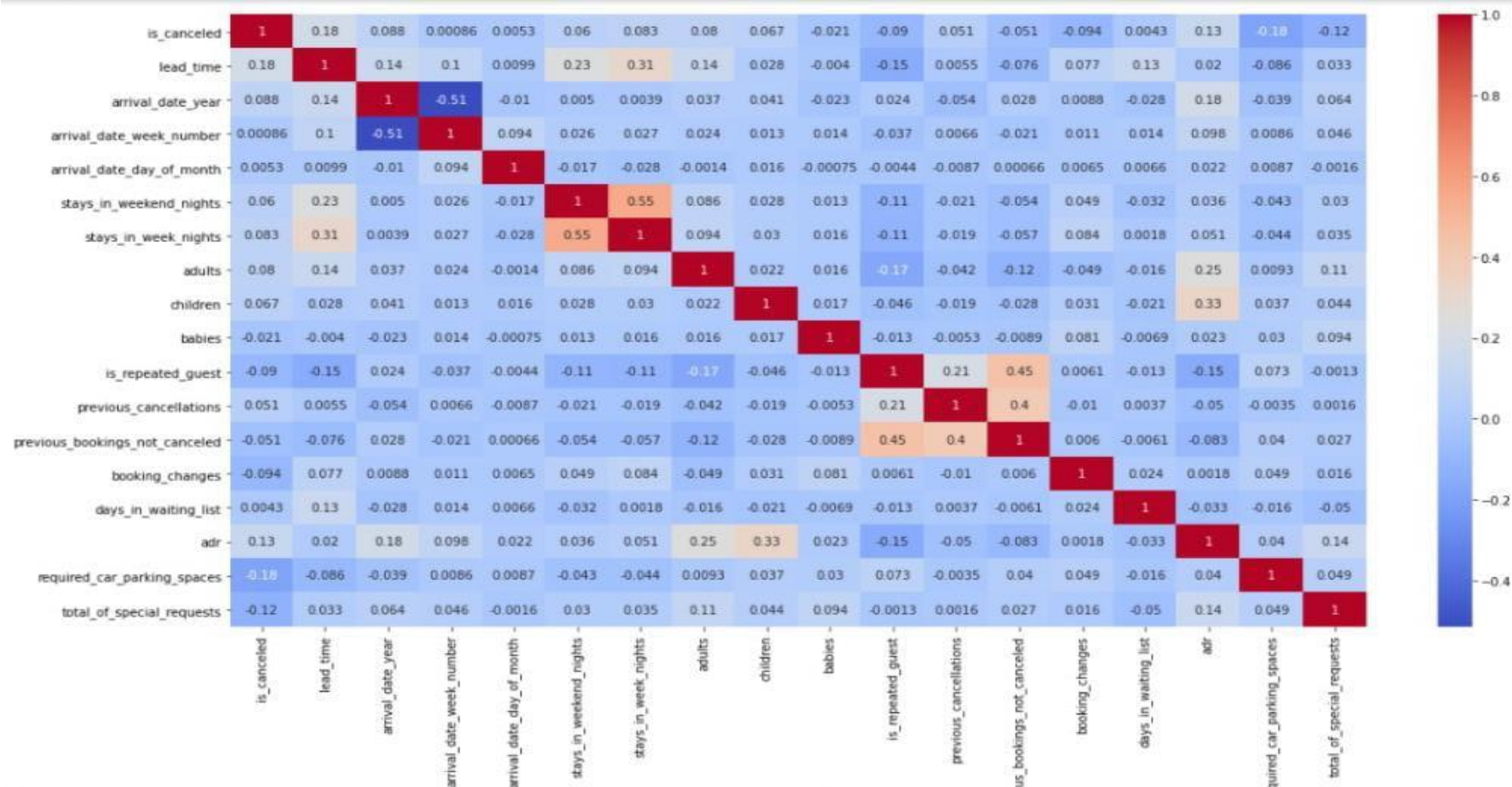
Plot between Month of year & Lead time



Plot between Month of year & Days in the waiting list



Heatmap - to show the relation between variables AI



CHALLENGES

- The name of the countries was not in the proper format, because of which we are not able to plot the geomap plot
- Company and agent column has lots of duplicate value
- There were many rows with almost similar data
- Lots of null values in the dataset

CONCLUSION

- Month of August and July receives most no. of booking.
- Booking for city hotels is twice as for resort hotels.
- Repeated customers cancel their hotel in very rare cases.
- Customers coming from aviation industry have very less time i.e. they book urgently
- People with no kids prefer to choose city hotel over resort hotel

Strategies to counter high cancellations at Hotel

- Since we see, our repetitive costumers are most loyal costumers, to maintain them we can provide them with some bonus points, which can be redeemed in the next booking
- Month of January and December receives less no. of booking, hotels can offer discounted packages for these months.
- Family with kids prefer resorts, we can provide with holiday family packages.
- Great no. of the bookings are coming from travel agents, so we can provide them some commission.

Thank You