



DATA ANALYST PROJECT

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DAFTAR ISI

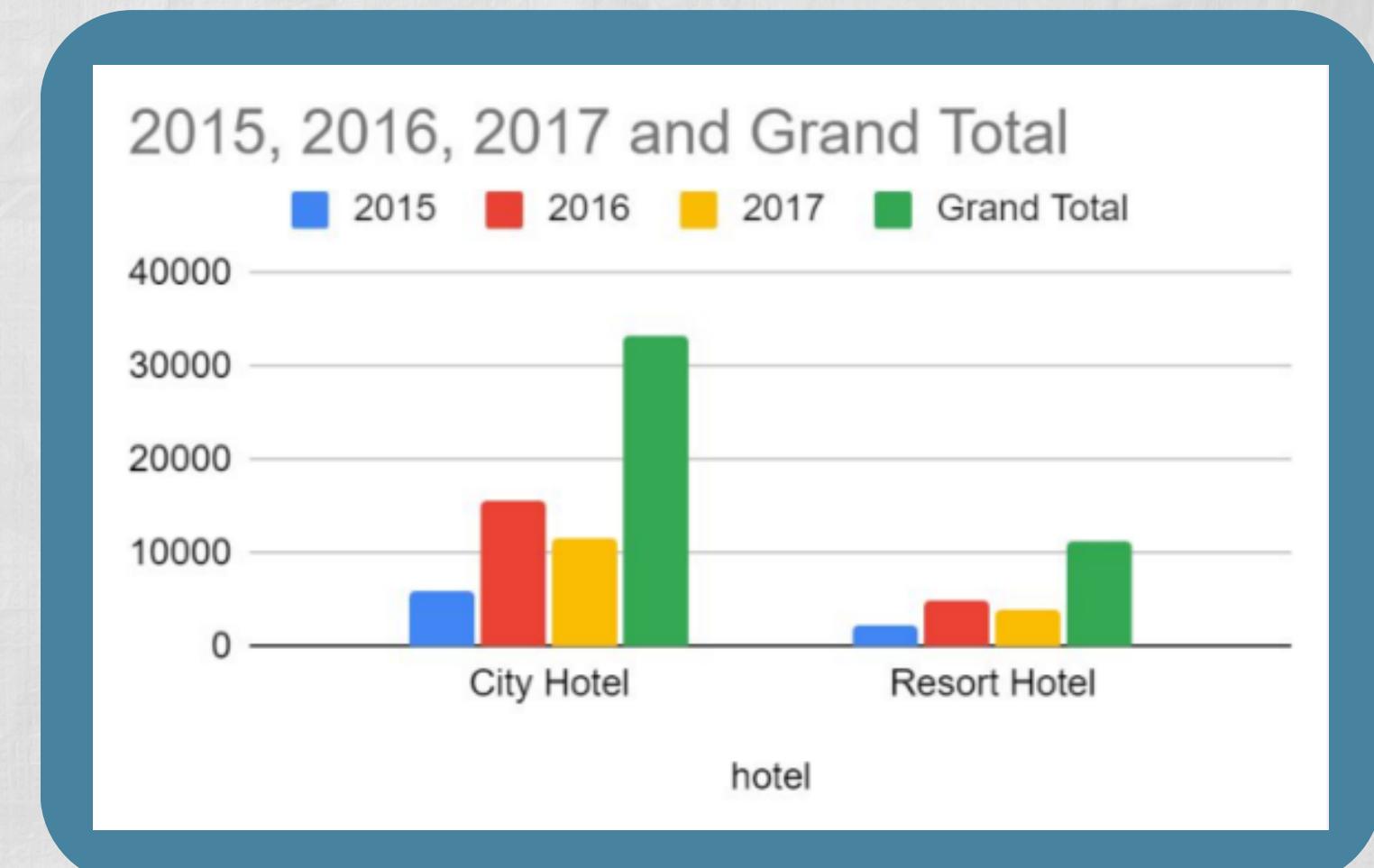
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BACKGROUND

The hotel industry is a dynamic and competitive sector, where occupancy rates and revenue are significantly influenced by various factors, one of which is the room reservation cancellation rate. High cancellation rates have a negative impact on hotel revenue, resource planning, and optimization of room availability. Therefore, it is important to identify the patterns of these factors in order to design effective strategies to reduce cancellation rates in the future.

DATASET

This presentation will focus on hotel cancellation rates during the period of 2015-2017.



Jumlah cancel pada tahun 2015-2017

PROBLEM

How to reduce cancellation rate for
the following year?

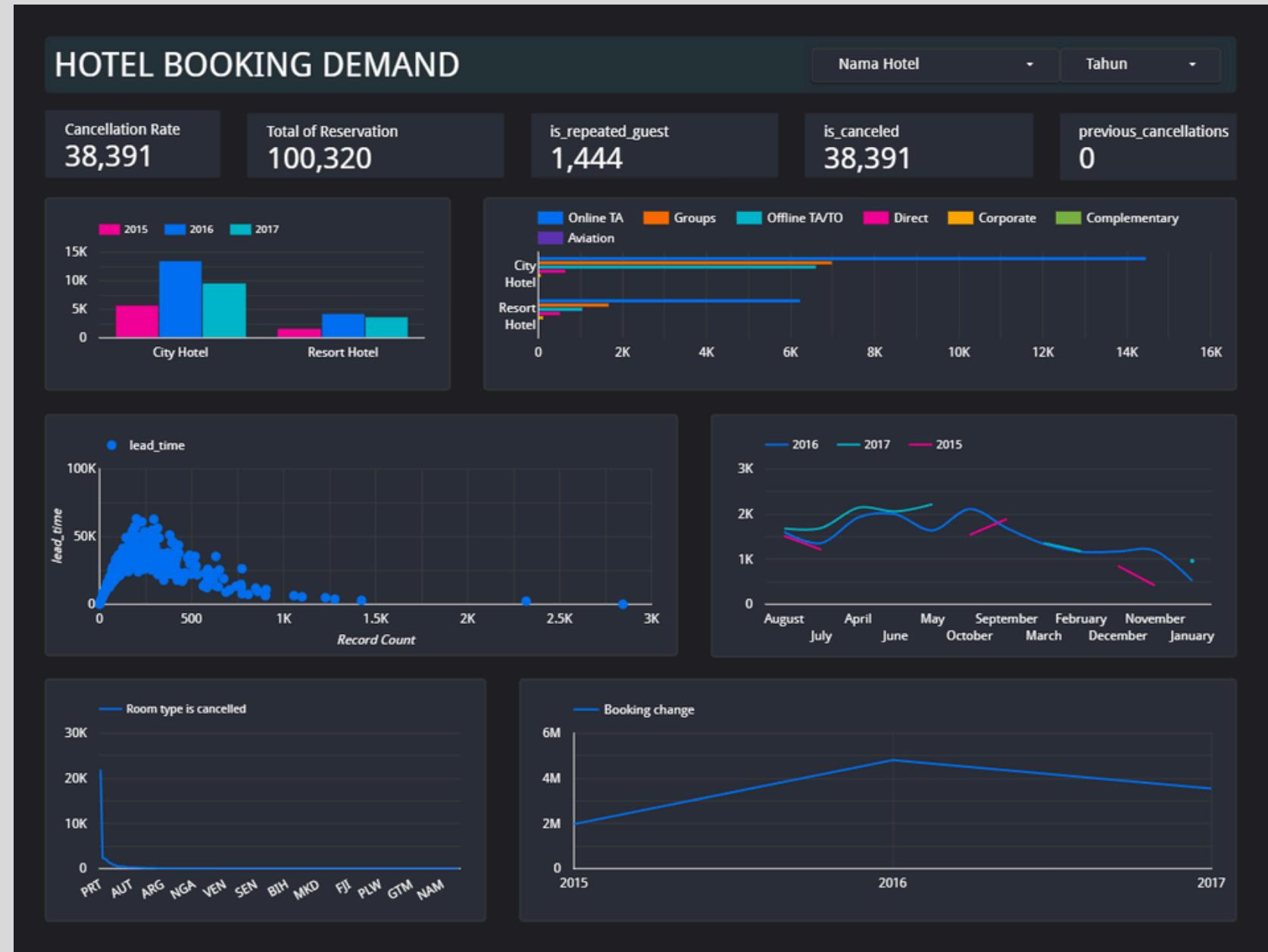
DATA PROCESSING

A	B	C	D	E	F	G	H	I	J
hotel	is_canceled	lead_time	arrival_date_year	arrival_date_month	arrival_date_week_number	arrival_date_day_of_month	stays_in_weekend	stays_in_week	adults
Resort Hotel	0	342	2015	July	27	1	0	0	
Resort Hotel	0	737	2015	July	27	1	0	0	
Resort Hotel	0	7	2015	July	27	1	0	1	
Resort Hotel	0	13	2015	July	27	1	0	1	
Resort Hotel	0	14	2015	July	27	1	0	2	
Resort Hotel	0	14	2015	July	27	1	0	2	
Resort Hotel	0	0	2015	July	27	1	0	2	
Resort Hotel	0	9	2015	July	27	1	0	2	
Resort Hotel	1	85	2015	July	27	1	0	3	
Resort Hotel	1	75	2015	July	27	1	0	3	
Resort Hotel	1	23	2015	July	27	1	0	4	
Resort Hotel	0	35	2015	July	27	1	0	4	
Resort Hotel	0	68	2015	July	27	1	0	4	
Resort Hotel	0	18	2015	July	27	1	0	4	
Resort Hotel	0	37	2015	July	27	1	0	4	
Resort Hotel	0	68	2015	July	27	1	0	4	
Resort Hotel	0	37	2015	July	27	1	0	4	
Resort Hotel	0	12	2015	July	27	1	0	1	
Resort Hotel	0	0	2015	July	27	1	0	1	
Resort Hotel	0	7	2015	July	27	1	0	1	

Data processing with
Spreadsheet

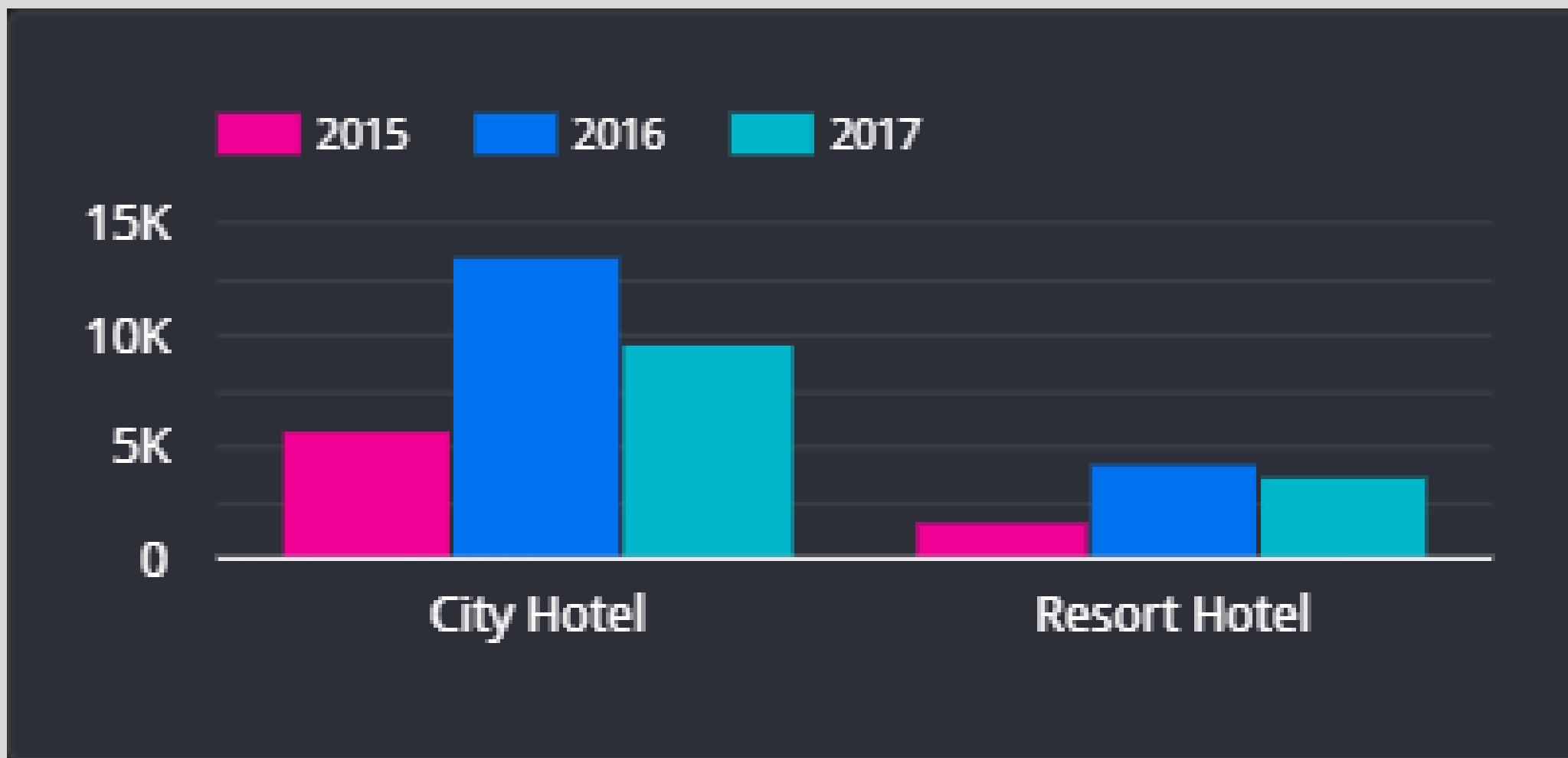
The data is originally from the article Hotel Booking Demand Datasets, written by Nuno Antonio, Ana Almeida, and Luis Nunes for Data in Brief, Volume 22, February 2019.

DATA VISUALIZATION



Visualization of bookings for two types of hotels, namely city hotels and resort hotels, using various hotel room booking methods.

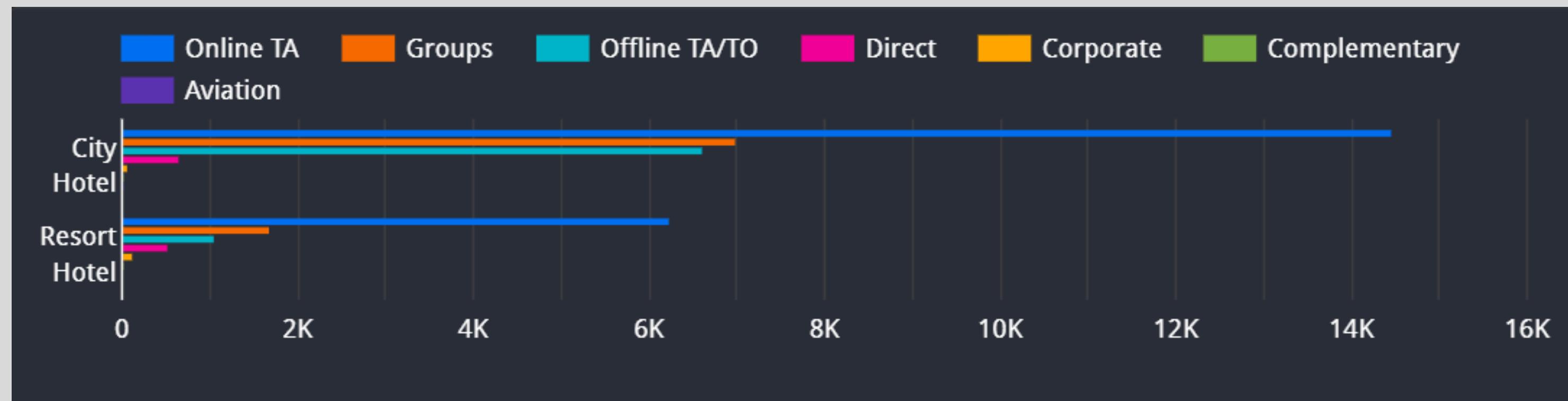
DATA VISUALIZATION



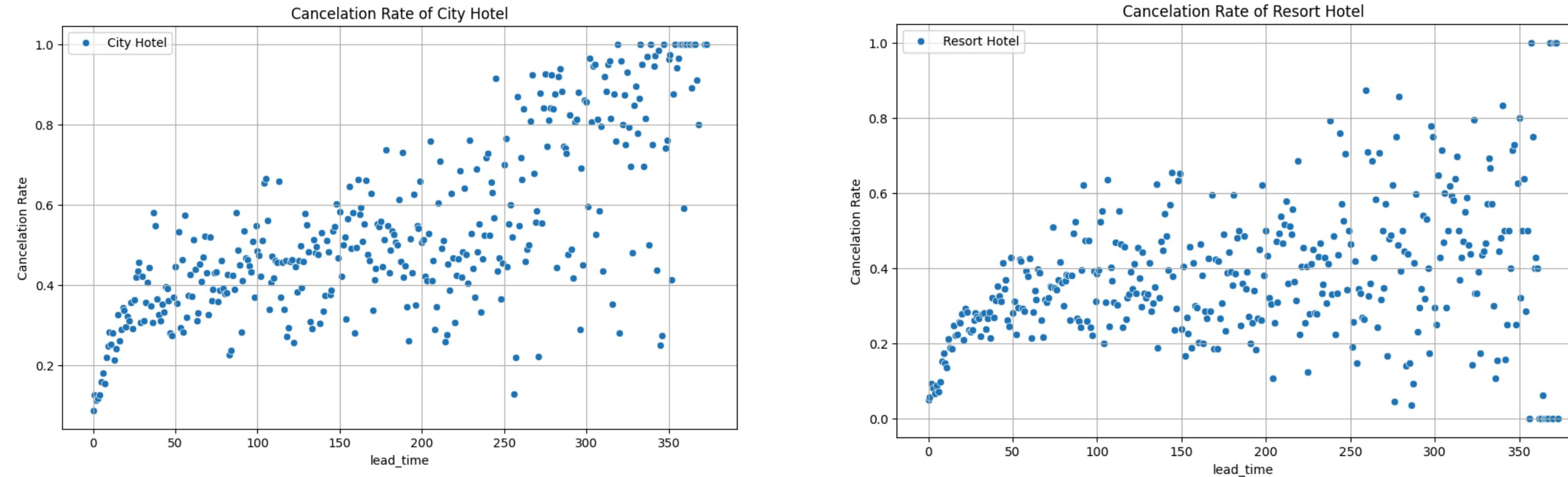
There are 100,320 data points.
City hotels have 27,996 cancellations and 786 no-shows.
Resort hotels have 9,393 cancellations and 216 no-shows.

DATA VISUALIZATION

Online bookings account for the highest number of cancellations, with 20,690 cancellations.

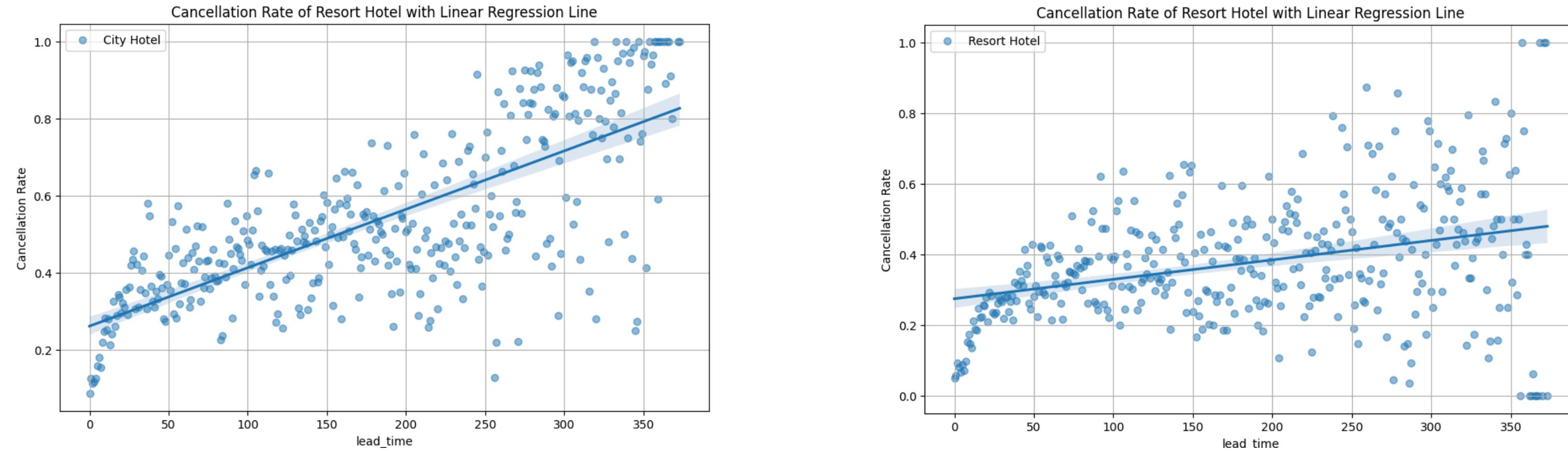


CANCELLATION RATE



Visualization of cancellation rates in relation to booking lead time and the date of hotel check-in.

CANCELLATION RATE



The linear regression analysis provides evidence that an increase in the interval between booking and check-in date correlates with a higher likelihood of cancellation.

SUMMARY

City hotels exhibit a higher cancellation rate than resort hotels, particularly concerning online bookings. The booking lead time also has an impact on hotel cancellation rates. It is recommended that future strategies include enhanced notification systems for online bookings and a restriction on bookings with a lead time exceeding 50 days to mitigate cancellation risk.

LINK

