

The background of the slide is a photograph of a beach at night. A yellow tent is pitched on the sand, with its interior light glowing. To the left of the tent, a campfire burns brightly, casting a warm glow and illuminating nearby items like a guitar and a cooler. The ocean is visible in the distance under a dark sky.

—

OUR EDA PRESENTATION

—

HOTEL

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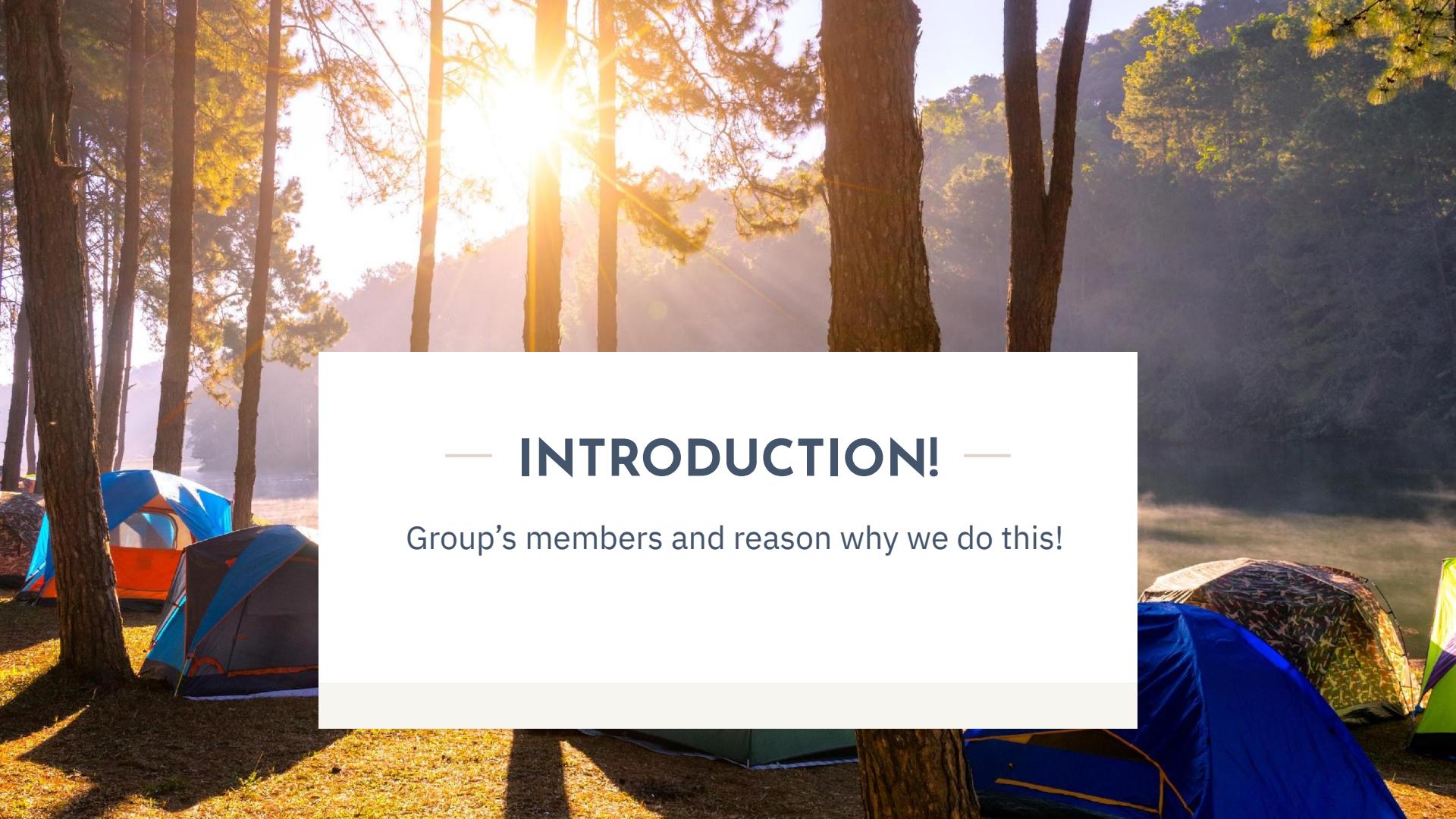
INTRODUCTION

02

Preprocess data

03

EDA



— INTRODUCTION! —

Group's members and reason why we do this!

01

Group members

Tô Đức Anh – Leader (40%)

Bùi Thị Thu Hương (40%)

Mai Lê Hoàng (20%)



01



Motivation

This is a presentation for an EDA notebook which is group 2's midterm project. We made an Exploratory Data Analysis (EDA) about two different hotels. One Resort hotel and another one is City hotel.



The data contains "bookings due to arrive between the 1st of July of 2015 and the 31st of August 2017".



02

Preprocess data

Import data, clean and preprocess data

What we did?



Import data

View and replace
missing values

Separate data to 2
group according to 2
hotels



02

Data features

There are 32 entities in our dataset



02

Data feature

1. hotel: Resort Hotel or City Hotel
2. is_canceled: Value indicating if the booking was canceled (1) or not (0)
3. lead_time: Number of days between the booking date to the arrival date
4. arrival_date_year: Year of arrival
5. arrival_date_month: Month of arrival
6. arrival_date_week_number: Week number according to year of arrival
7. arrival_date_day_of_month: Day of arrival
8. stays_in_weekend_nights: Number



03

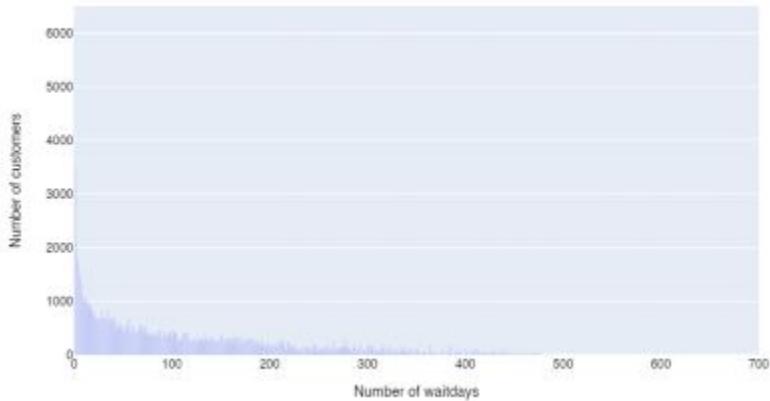
Exploratory Data Analysis

In this section we will explore the given data

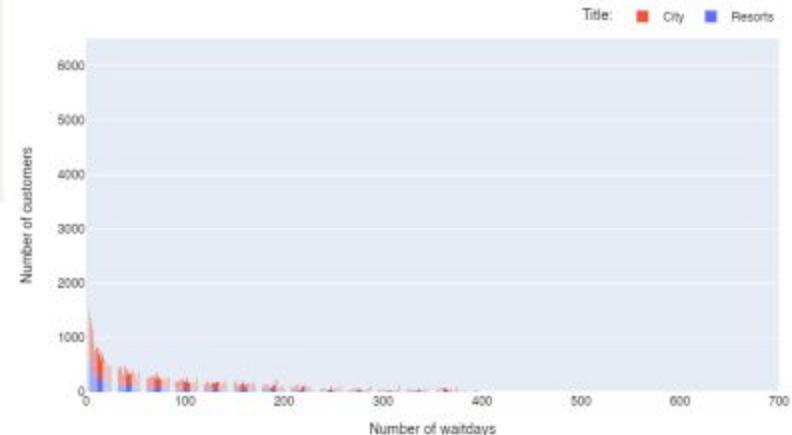


Waitdays group by each hotel

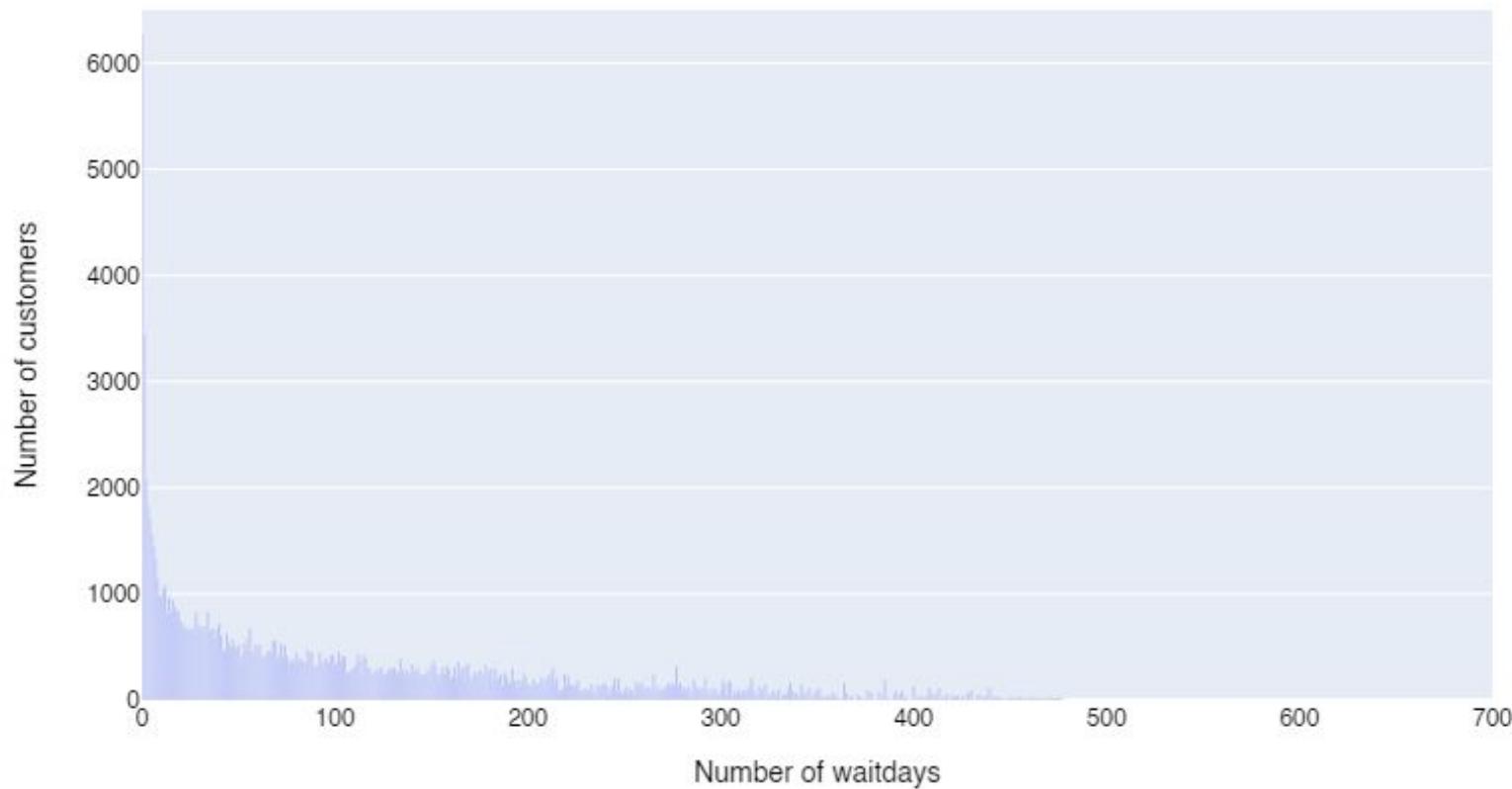
Waitdays distribution



Waitdays distribution group by hotel

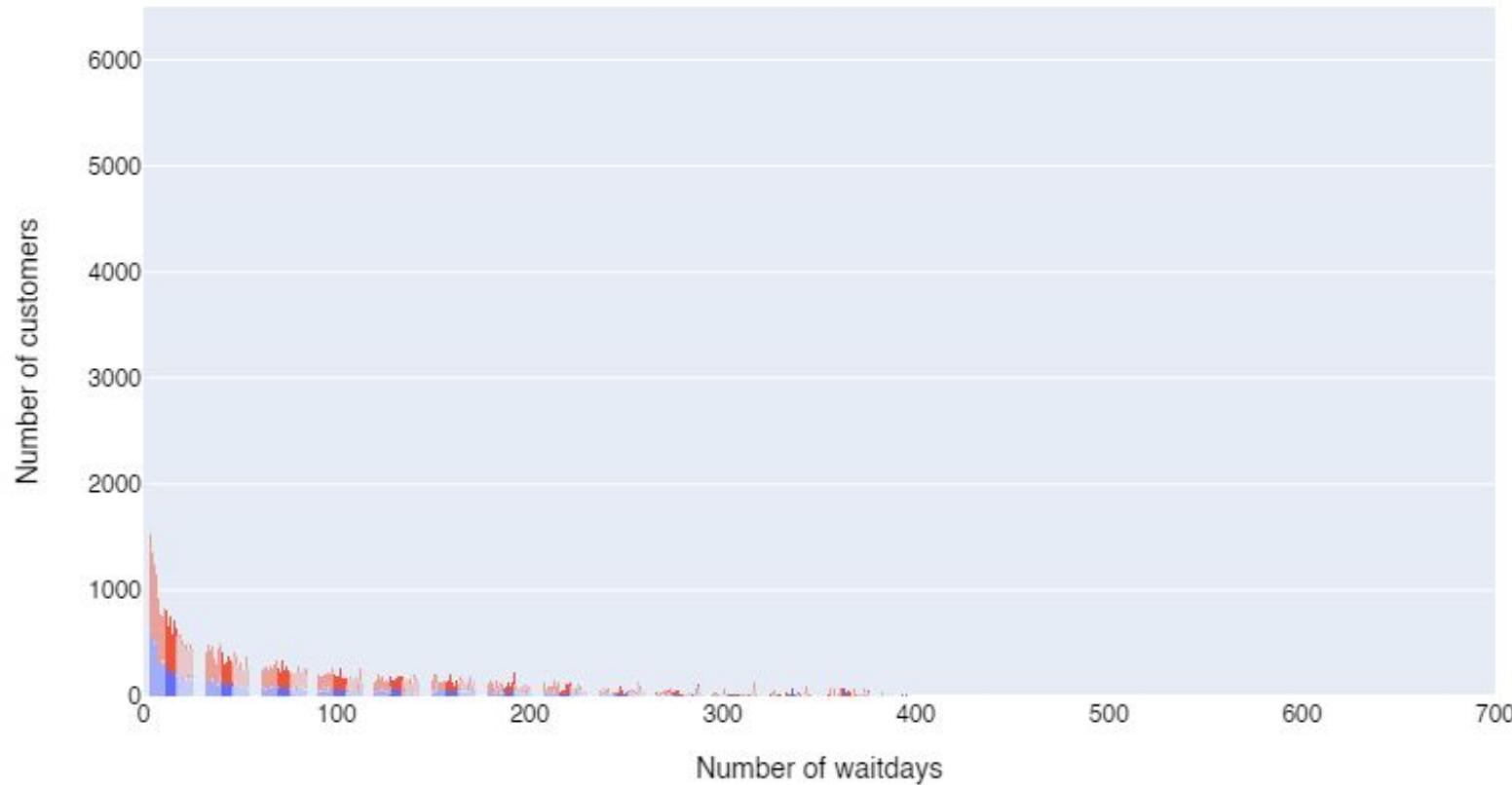


Waitdays distribution



Waitdays distribution group by hotel

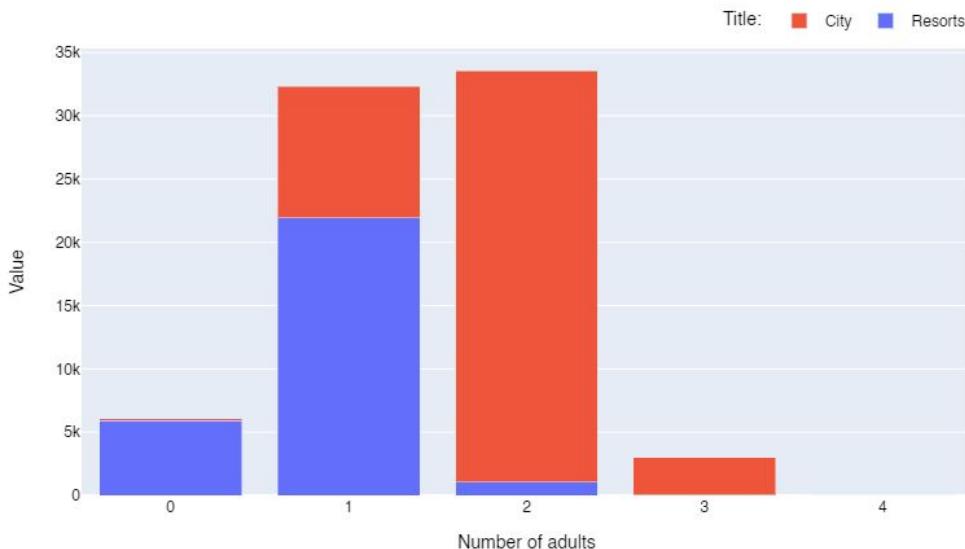
Title: █ City █ Resorts



Adults, babies and children distribution, group by hotels



Adults distribution group by hotel



CITY HOTEL

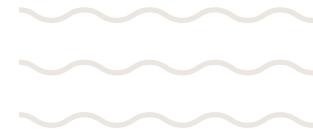
City Hotel adults distribution



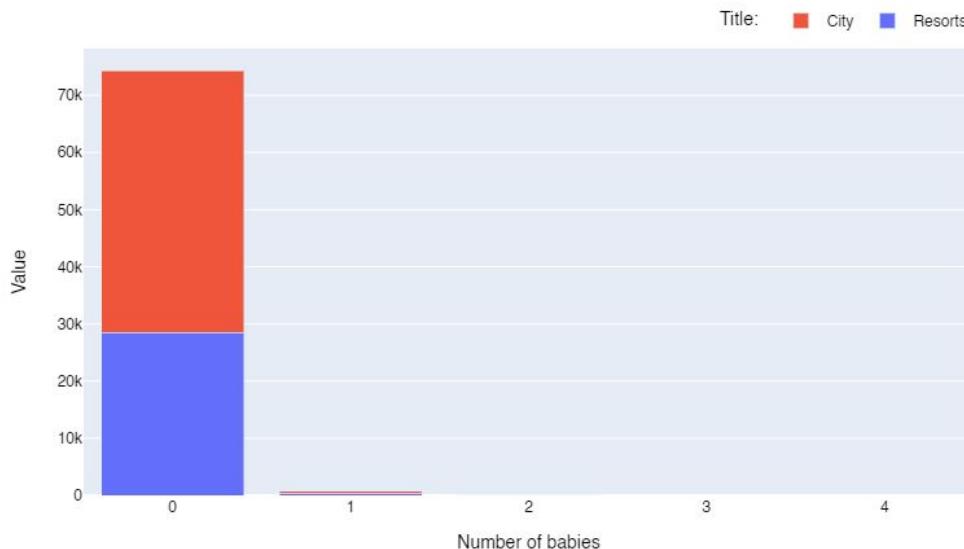
RESORT HOTEL

Resort Hotel adults distribution

Adults, babies and children distribution, group by hotels



Babies distribution group by hotel



CITY HOTEL

City Hotel babies distribution



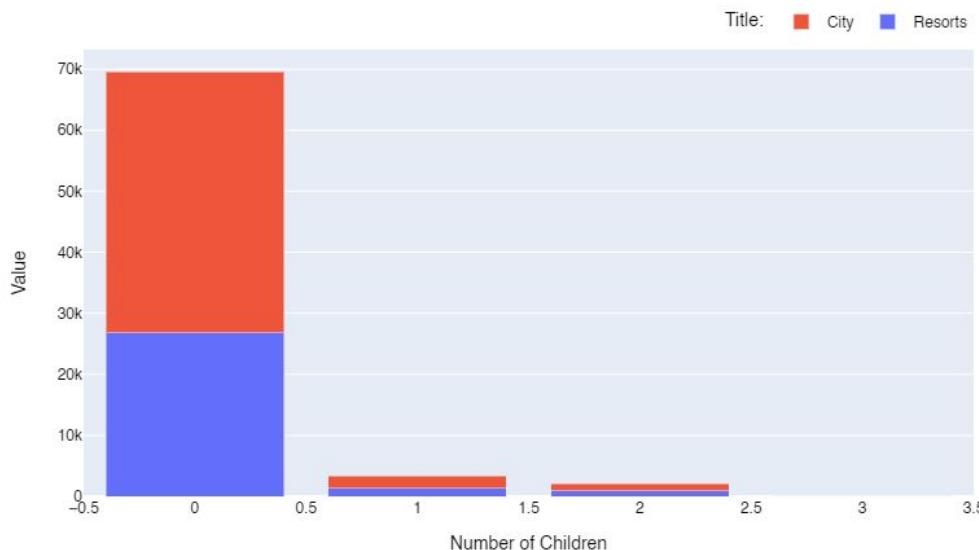
RESORT HOTEL

Resort Hotel babies distribution

Adults, babies and children distribution, group by hotels



Children distribution group by hotel



CITY HOTEL

City Hotel children distribution



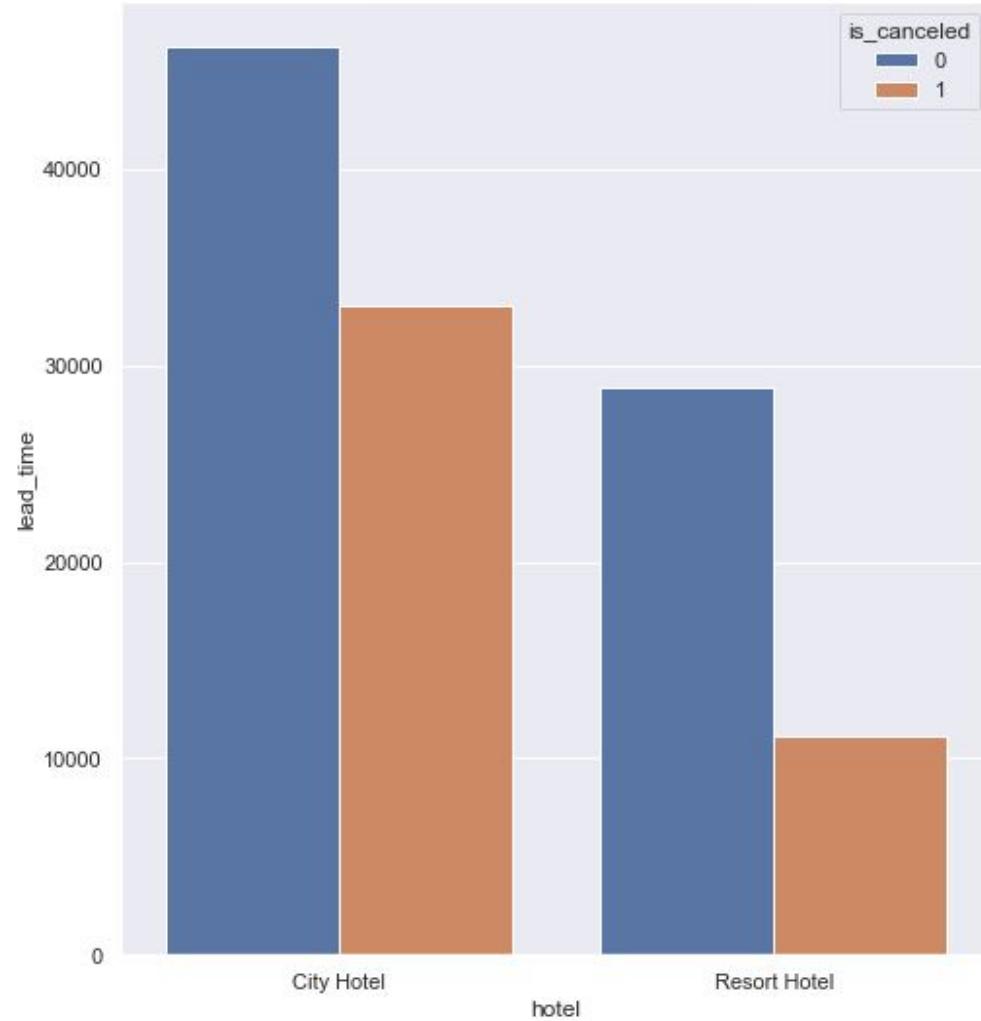
RESORT HOTEL

Resort Hotel children distribution

Cancellation distribution group by hotels



Cancelled group by hotels

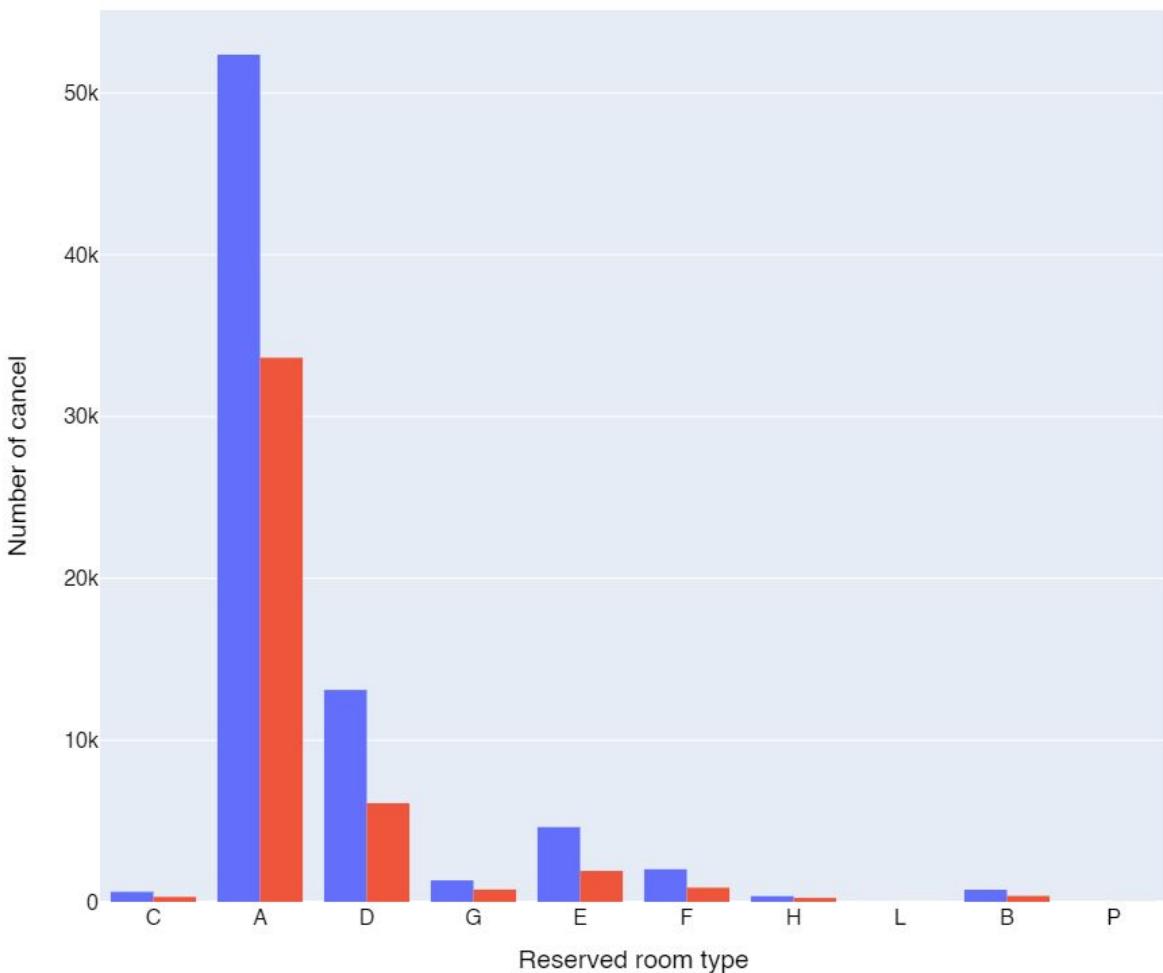


Cancellations according to room type

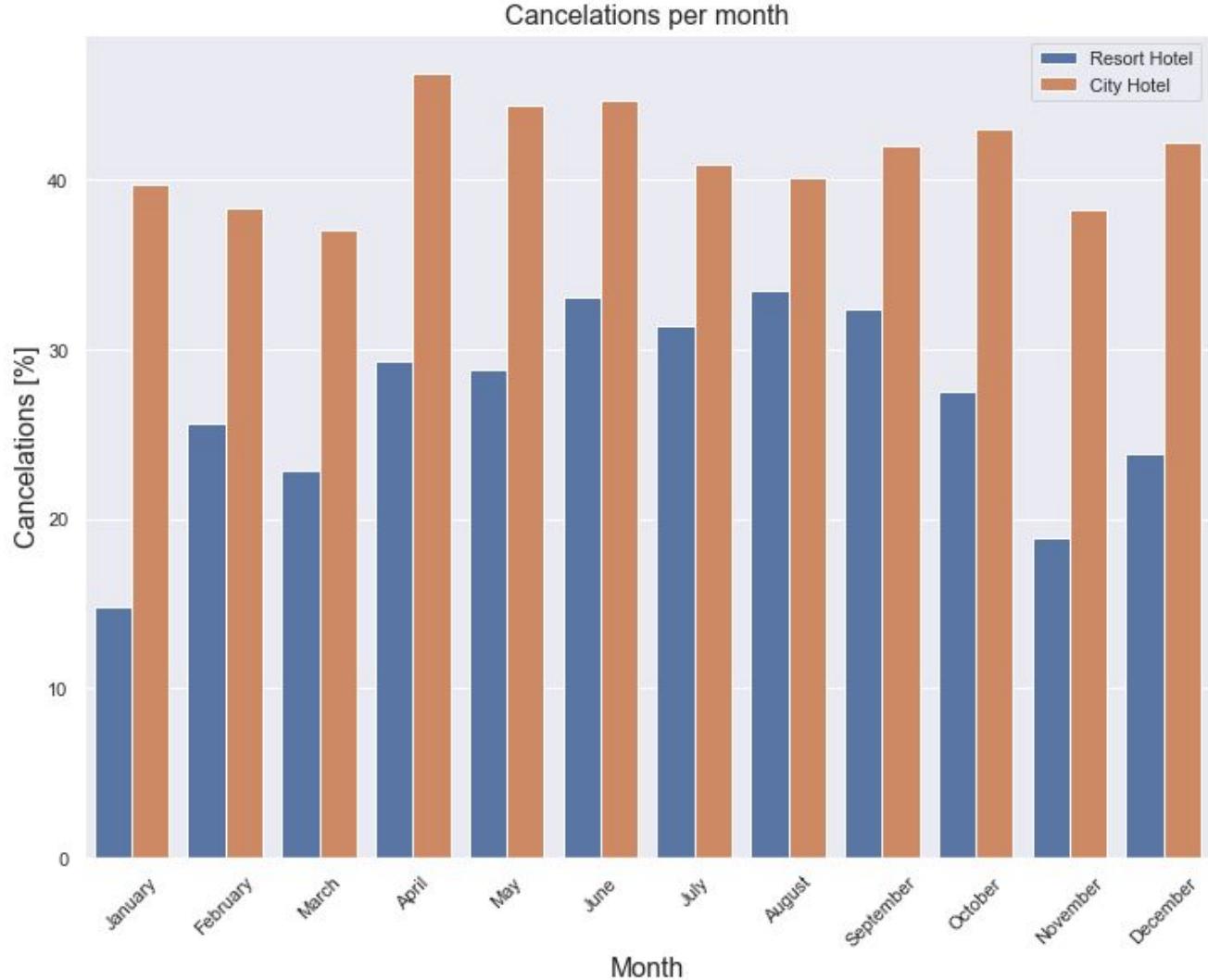


Cancellations According to Room Type

Cancel (1) or not (0) █ 0 █ 1



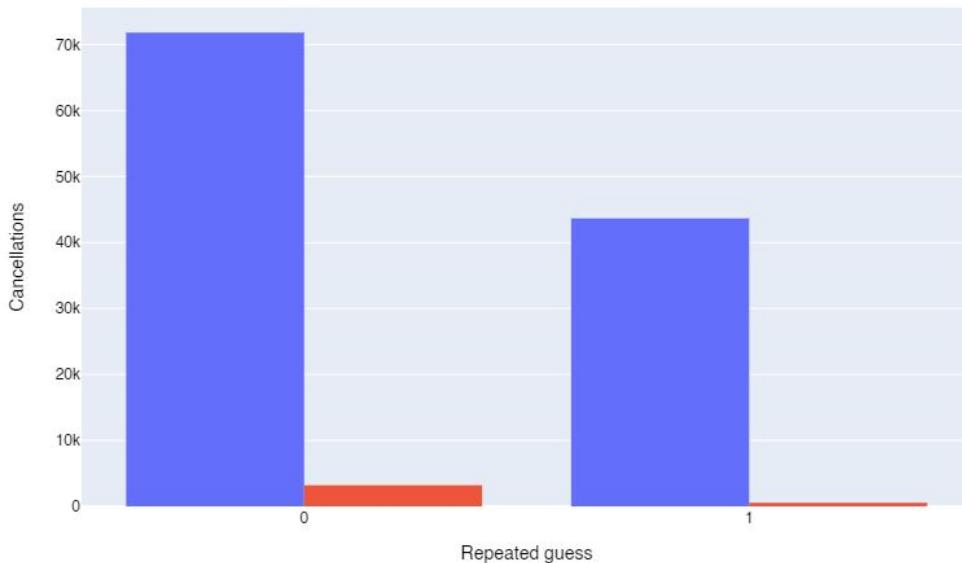
Cancellation per month



Cancellation by repeated guess



Cancellations or not



CANCELED

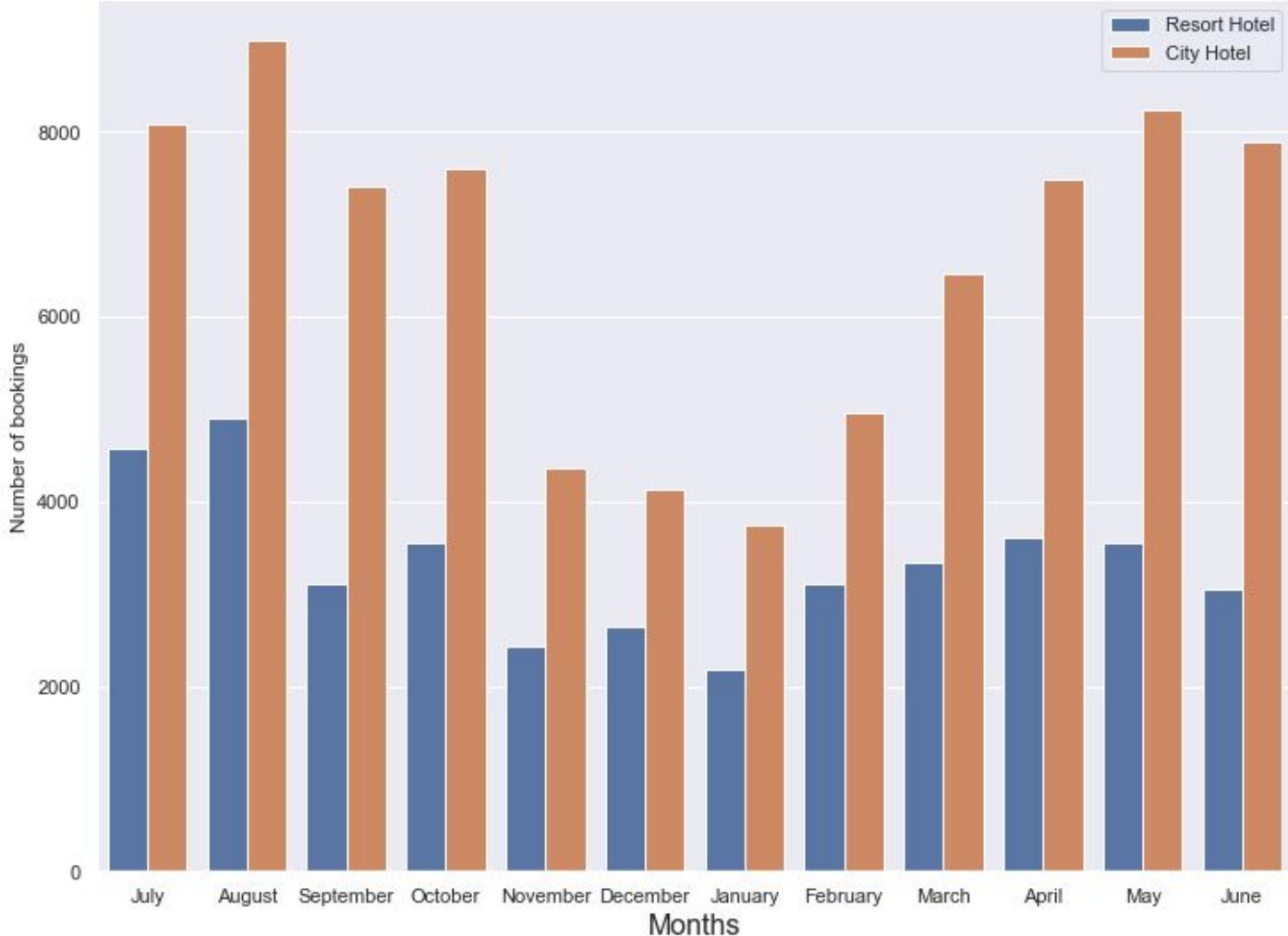


NOT CANCELED

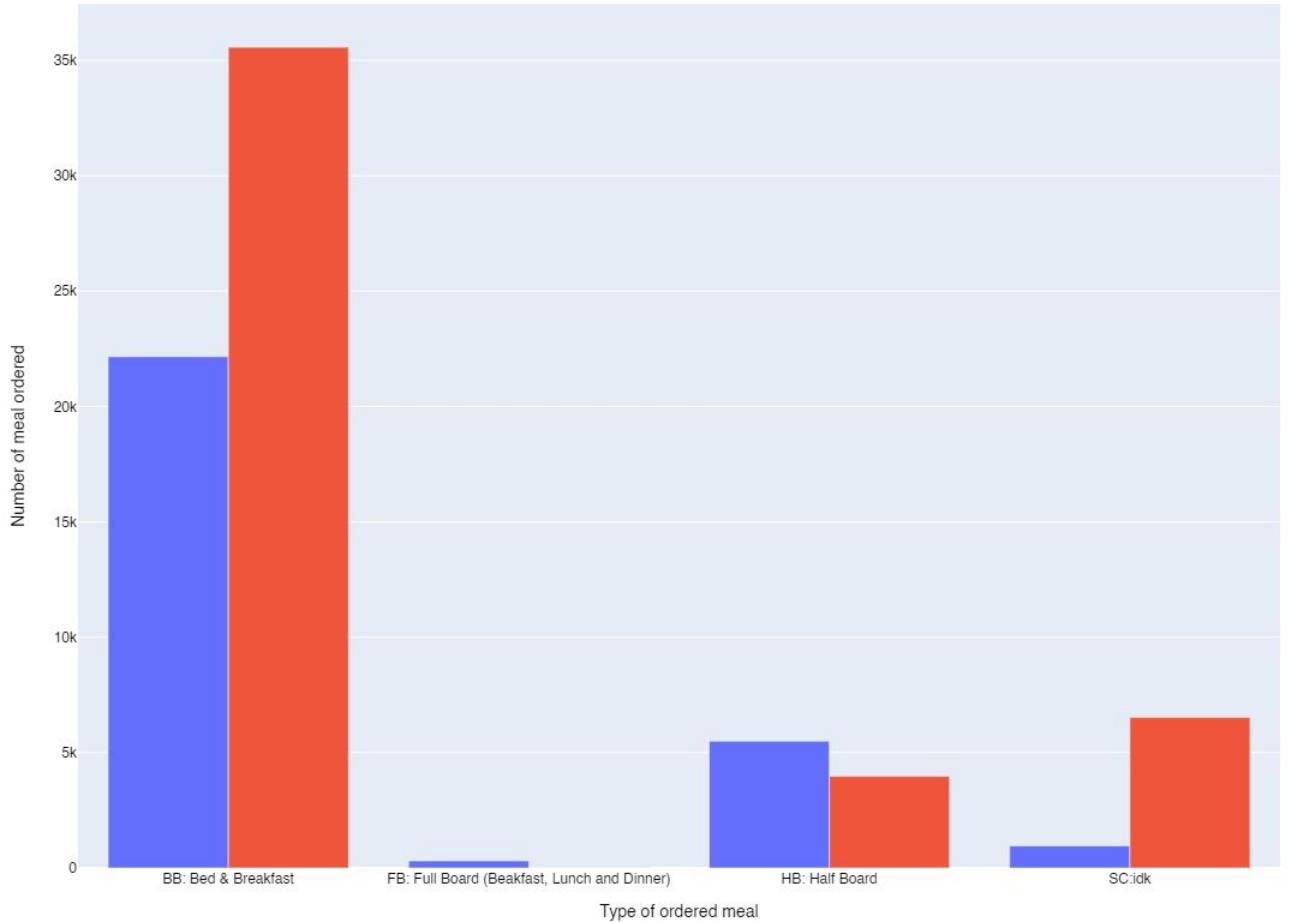
Booking distribution



Popular month for booking



Meal Ordered



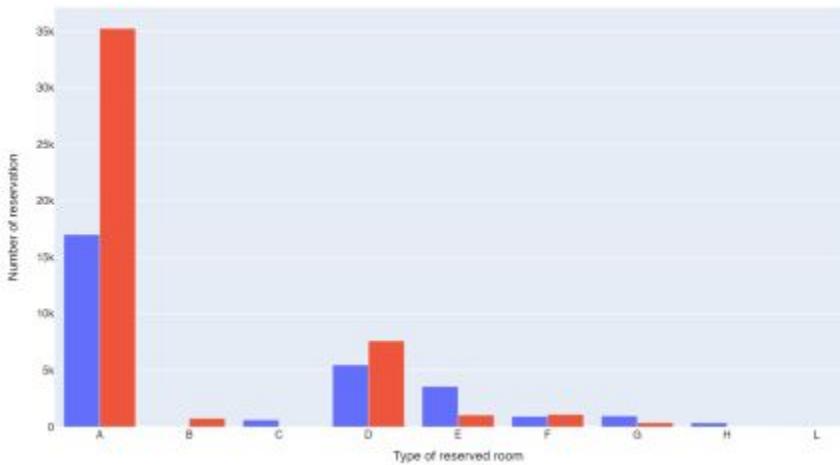
Legend Title
Resorts
City



Meal
ordered

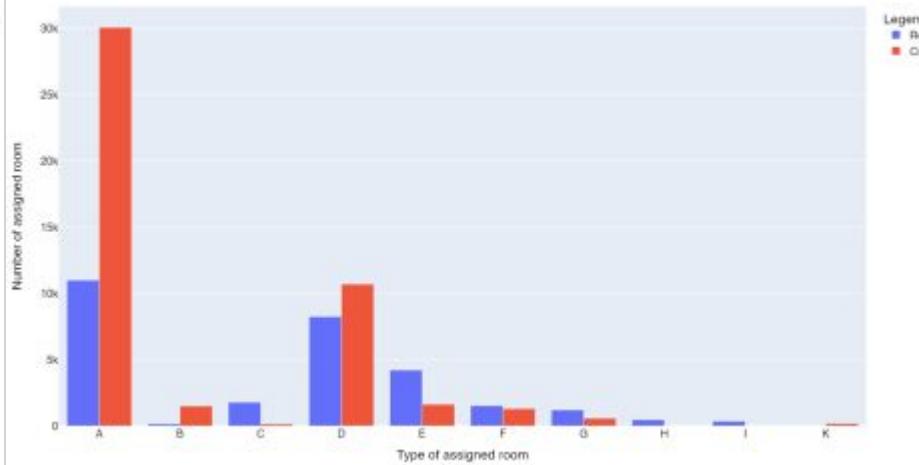


Reserved room type

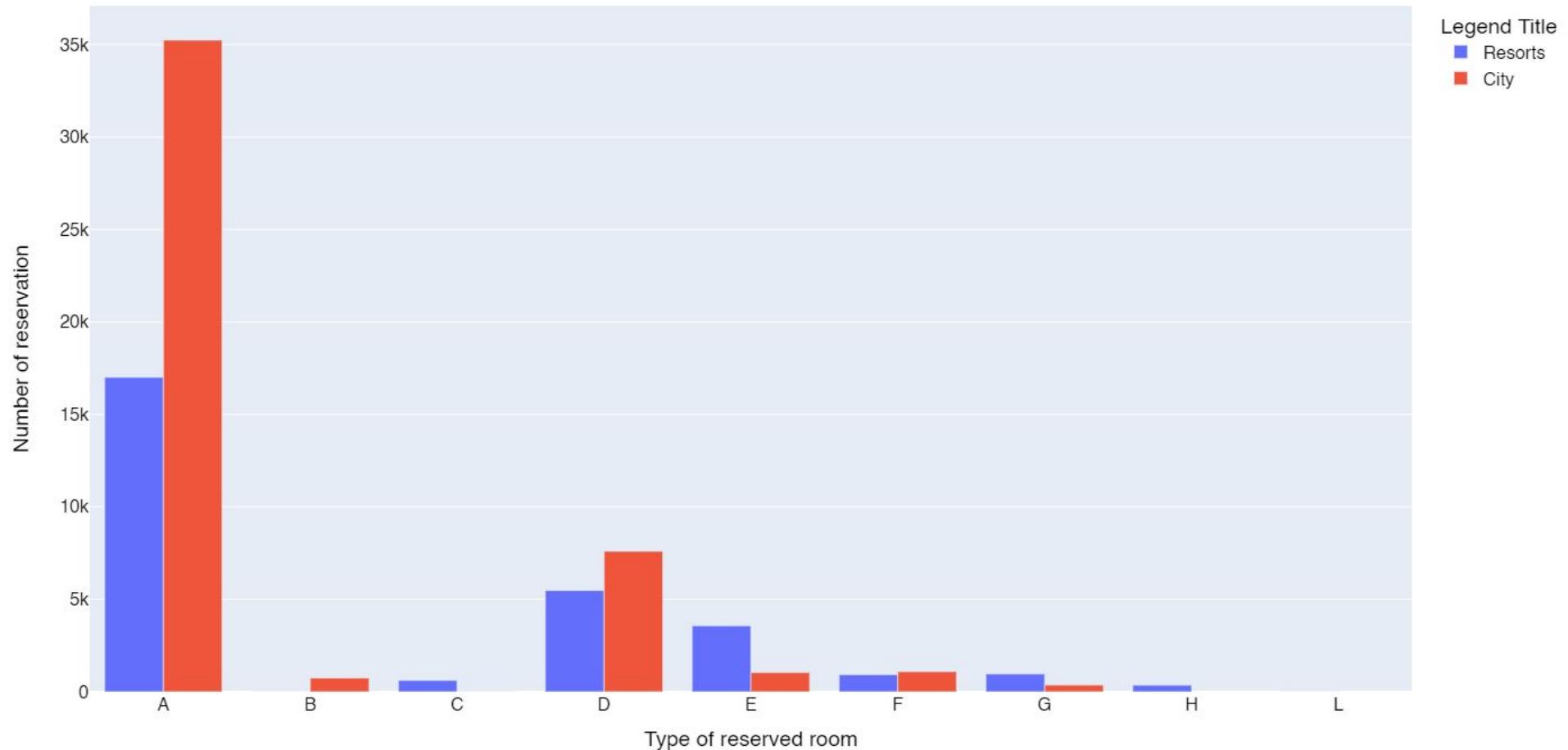


Reserved and assigned room type

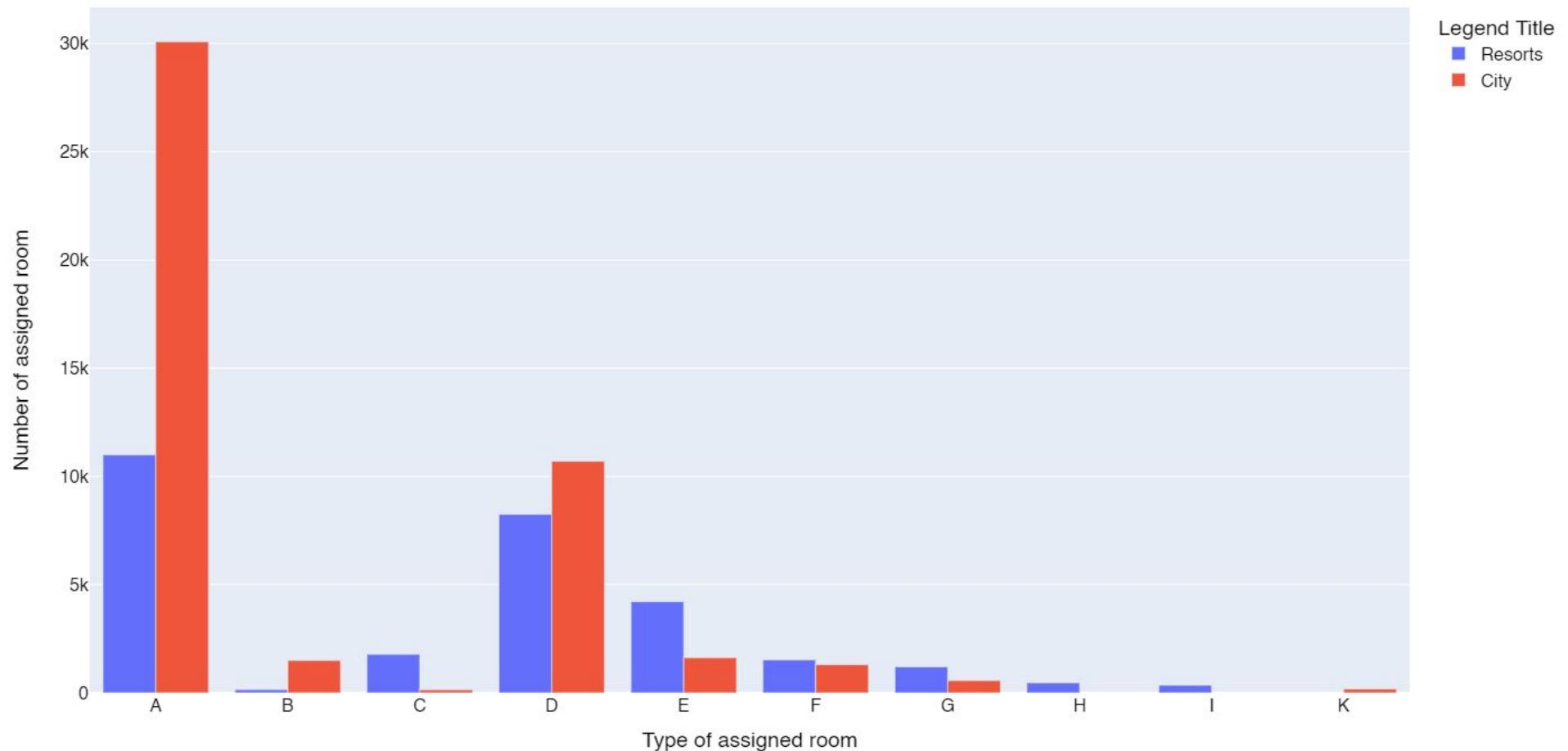
Assigned room type



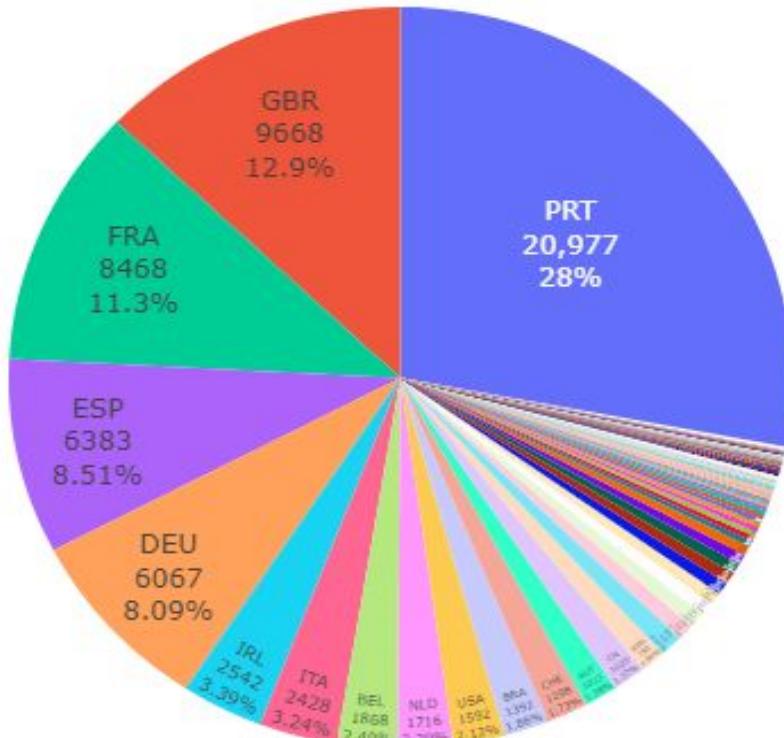
Reserved room type



Assigned room type



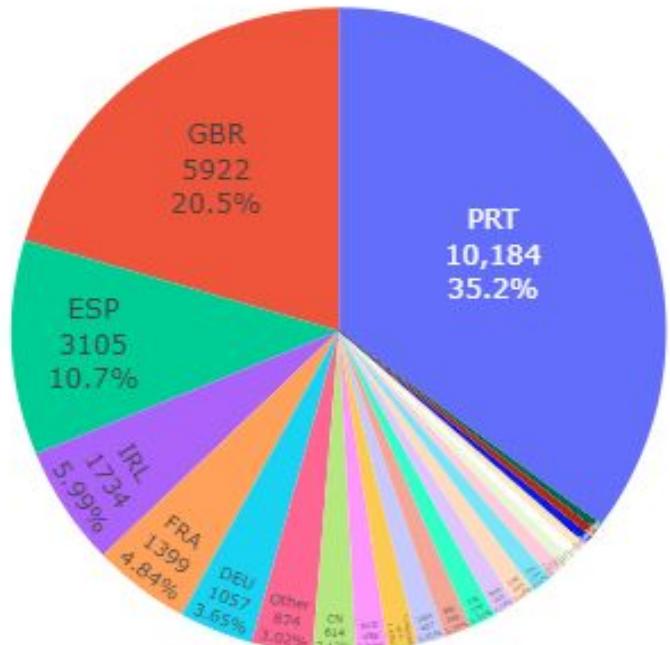
Home country of guests



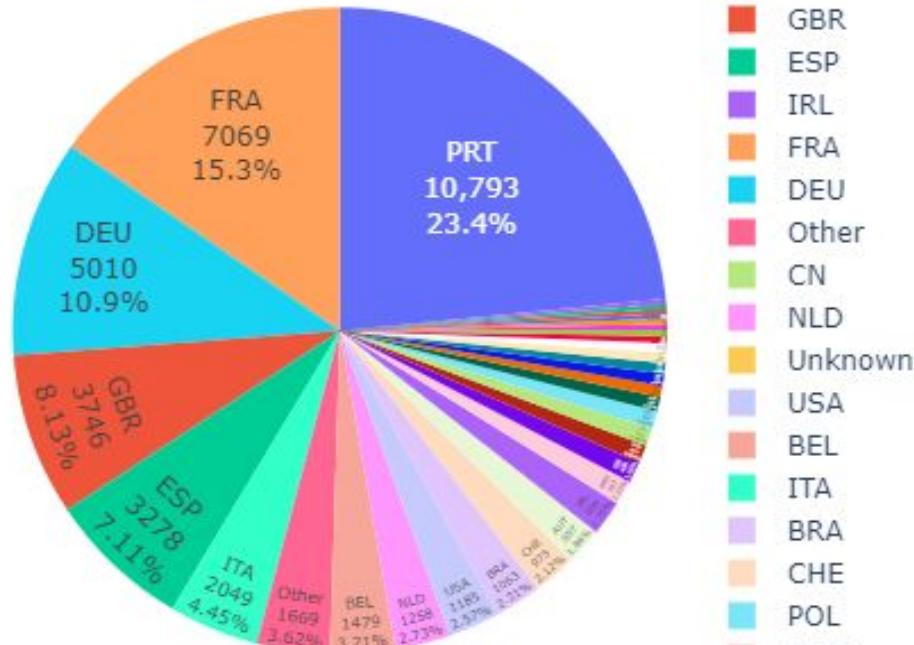
- PRT
- GBR
- FRA
- ESP
- DEU
- IRL
- ITA
- BEL
- NLD
- USA
- BRA
- CHE
- AUT
- CN
- SWE
- POL
- CHN
- ISR

Hotel Guests by Country of Origin

Resort Hotel



City Hotel

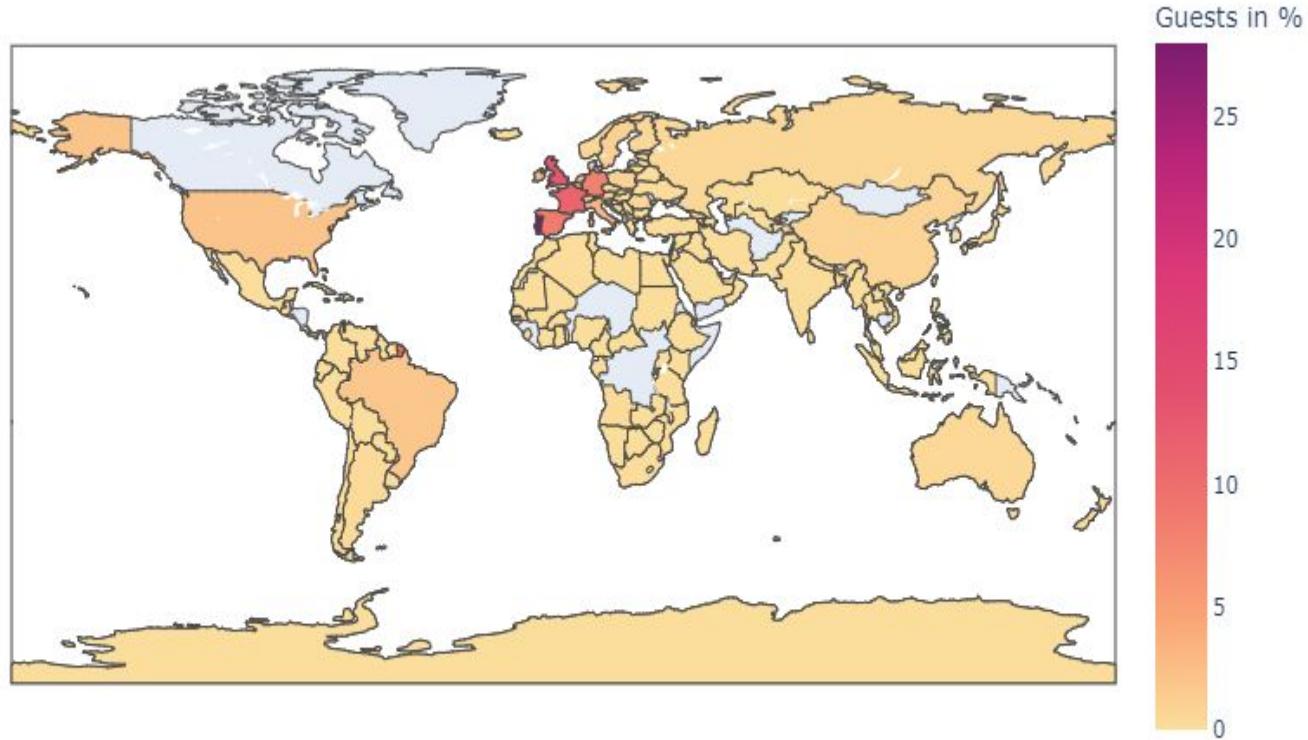


- PRT
- GBR
- ESP
- IRL
- FRA
- DEU
- Other
- CN
- NLD
- Unknown
- USA
- BEL
- ITA
- BRA
- CHE
- POL
- SWE
- AUT

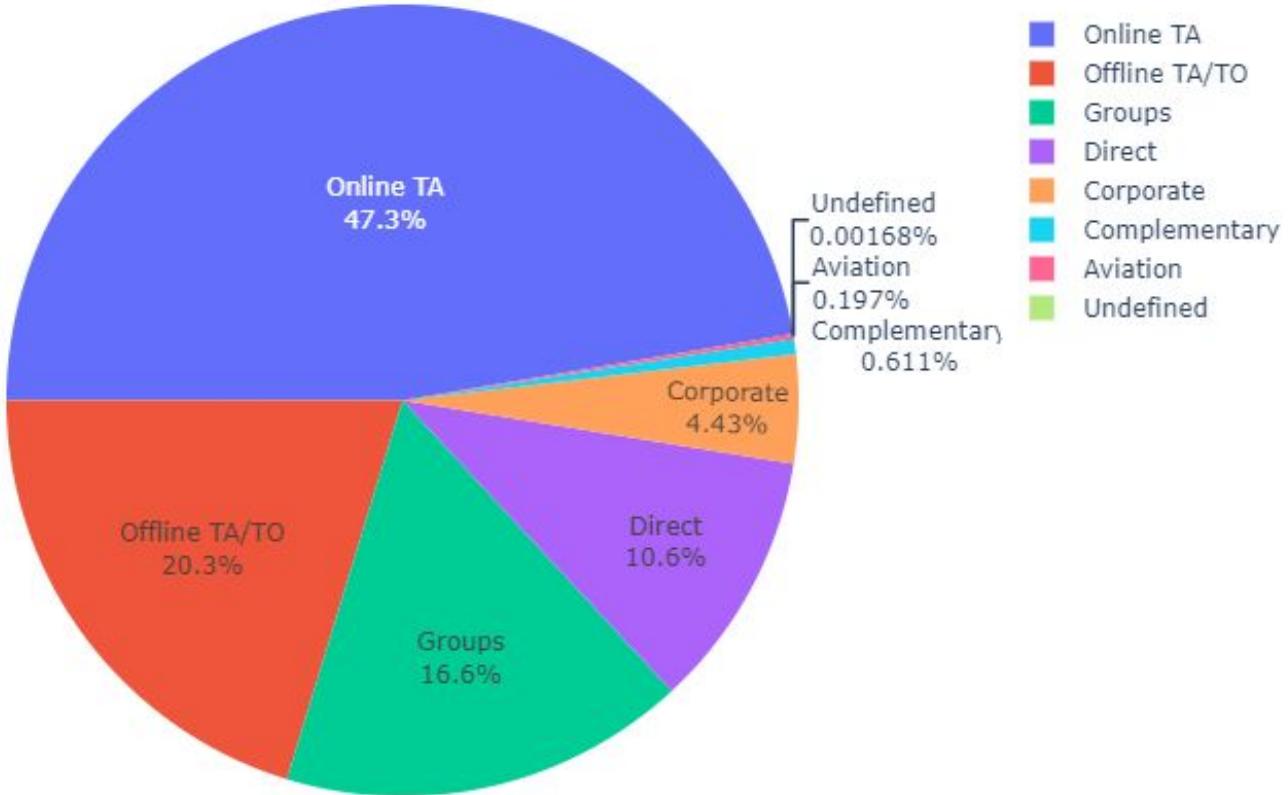
THIS IS A MAP OF CUSTOMER'S HOME

COLORS

Indicate guests in %

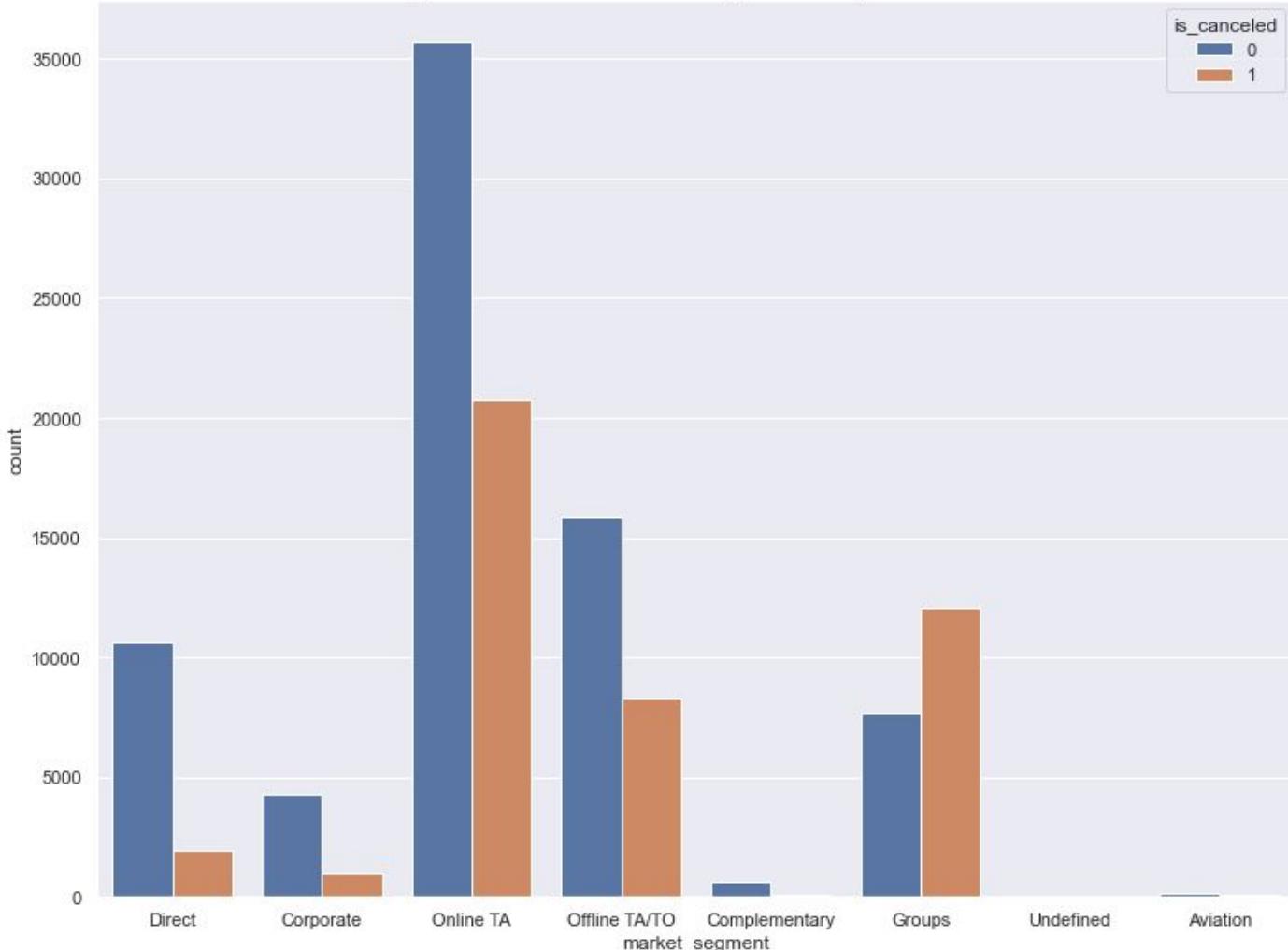


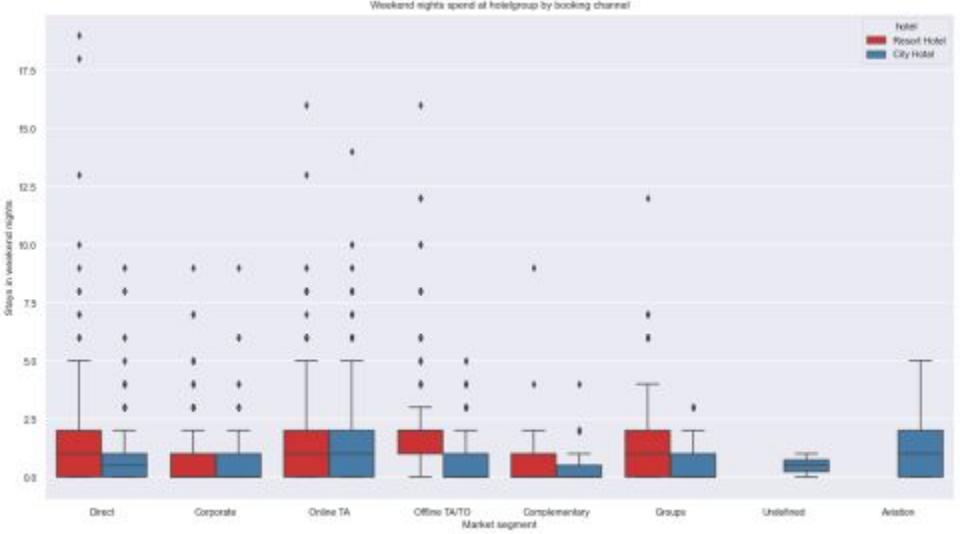
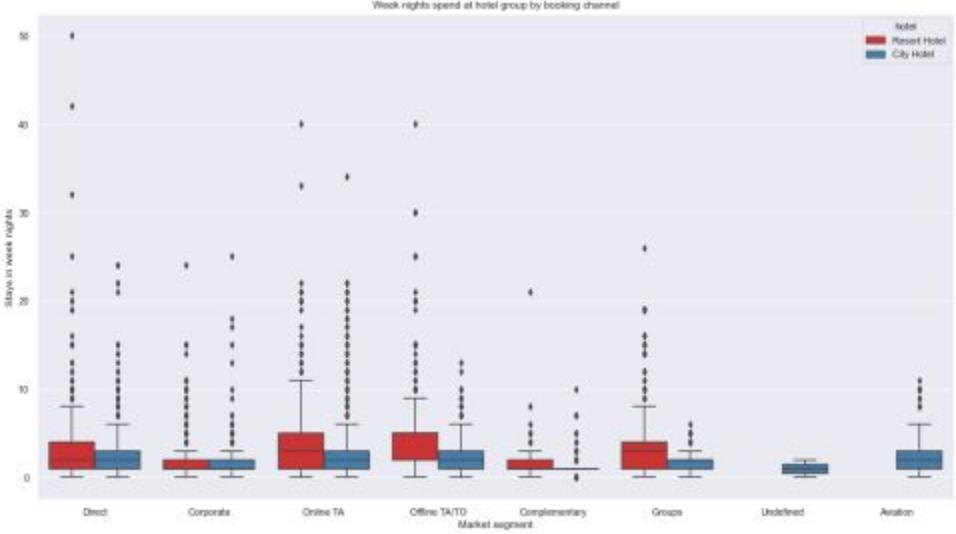
Bookings by market segment



Bookings by market segment, group by hotel

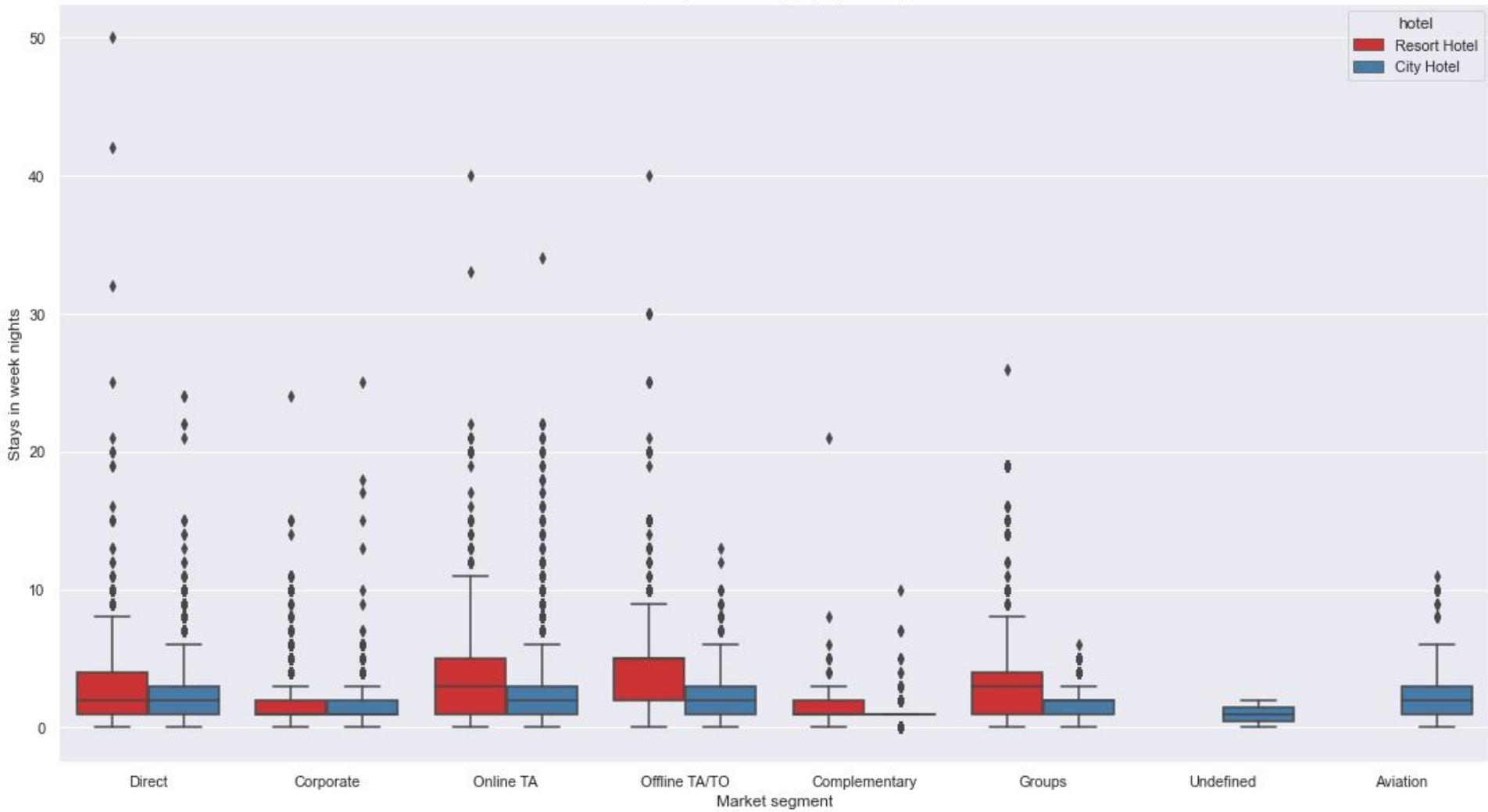
Countplot Distribution of Segments by Cancellation



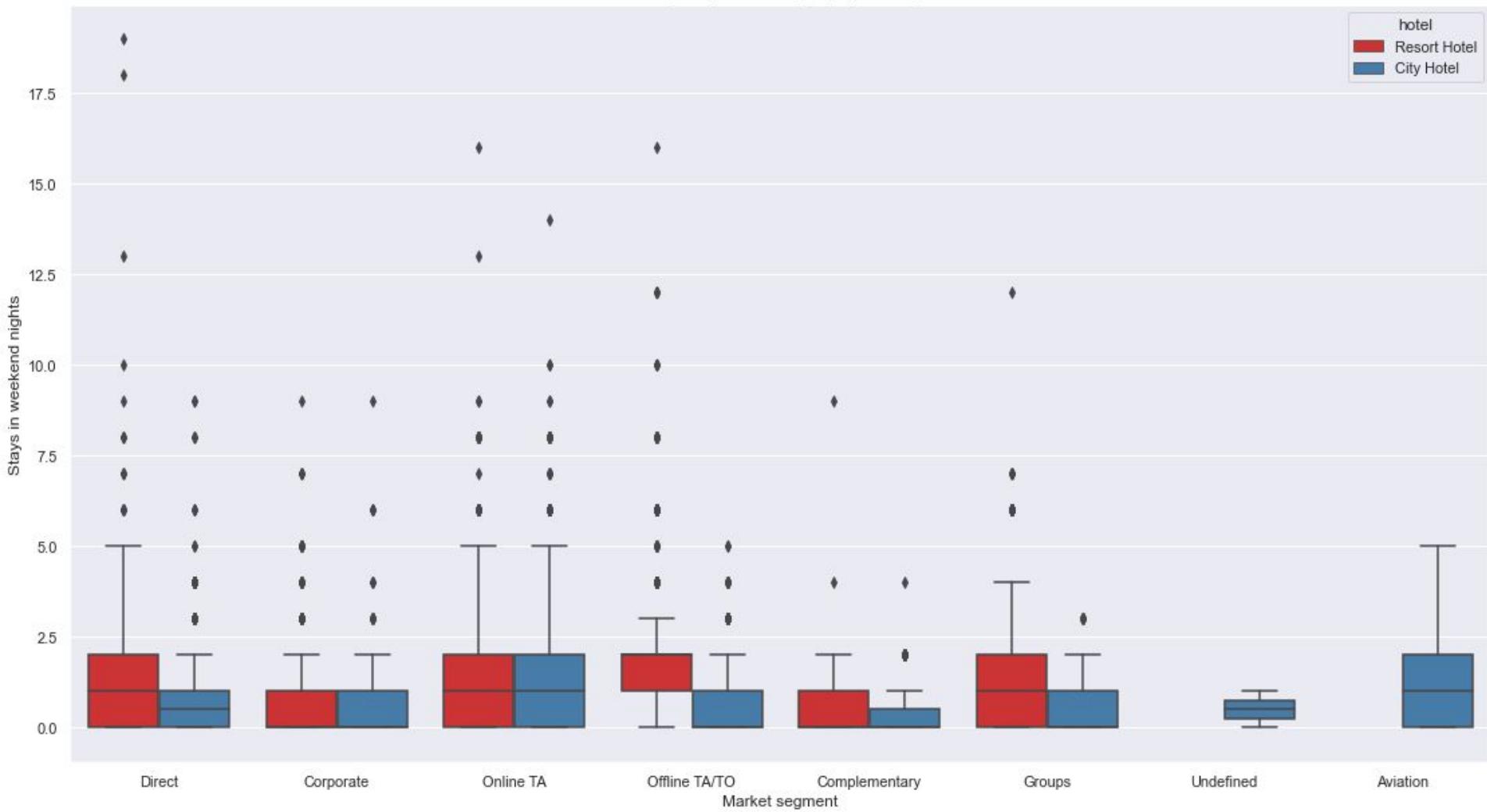


Distribution of Nights Spent at Hotels by Market Segment and Hotel Type

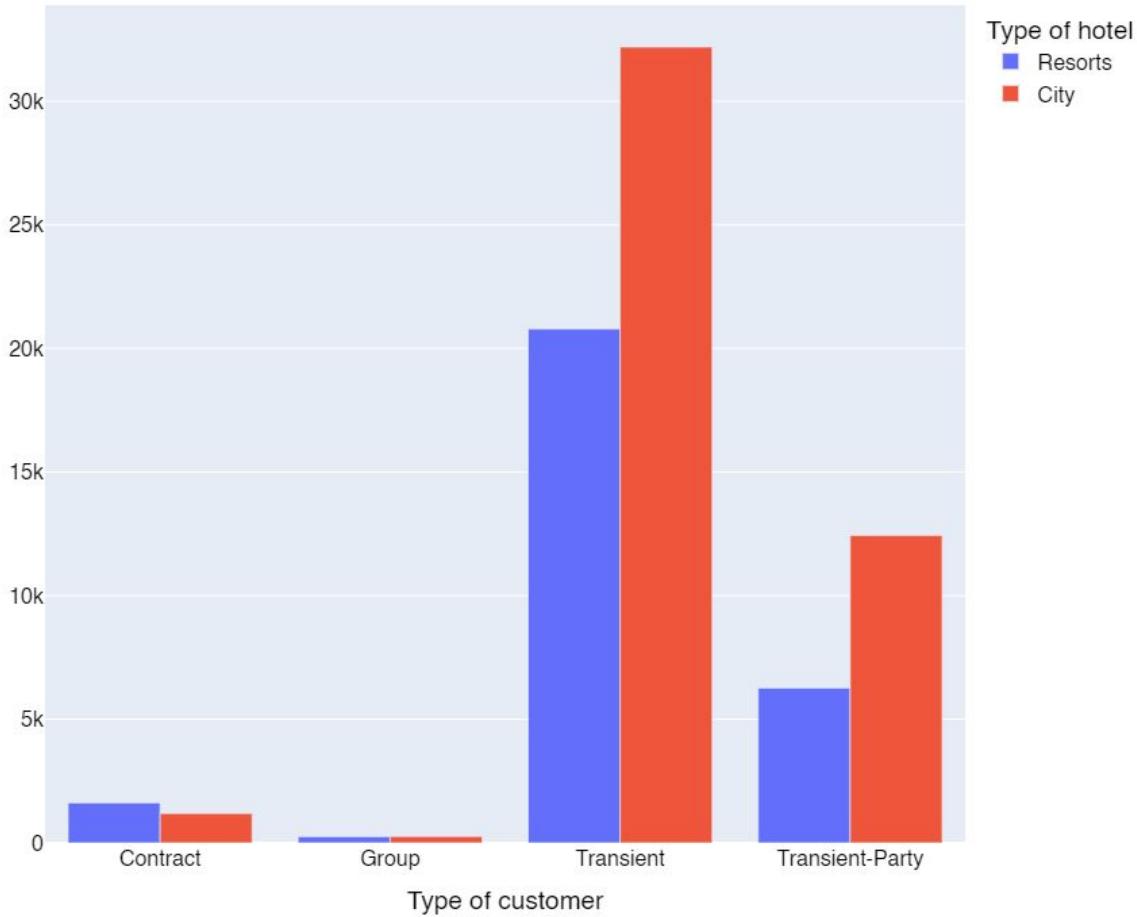
Week nights spend at hotel group by booking channel



Weekend nights spend at hotelgroup by booking channel



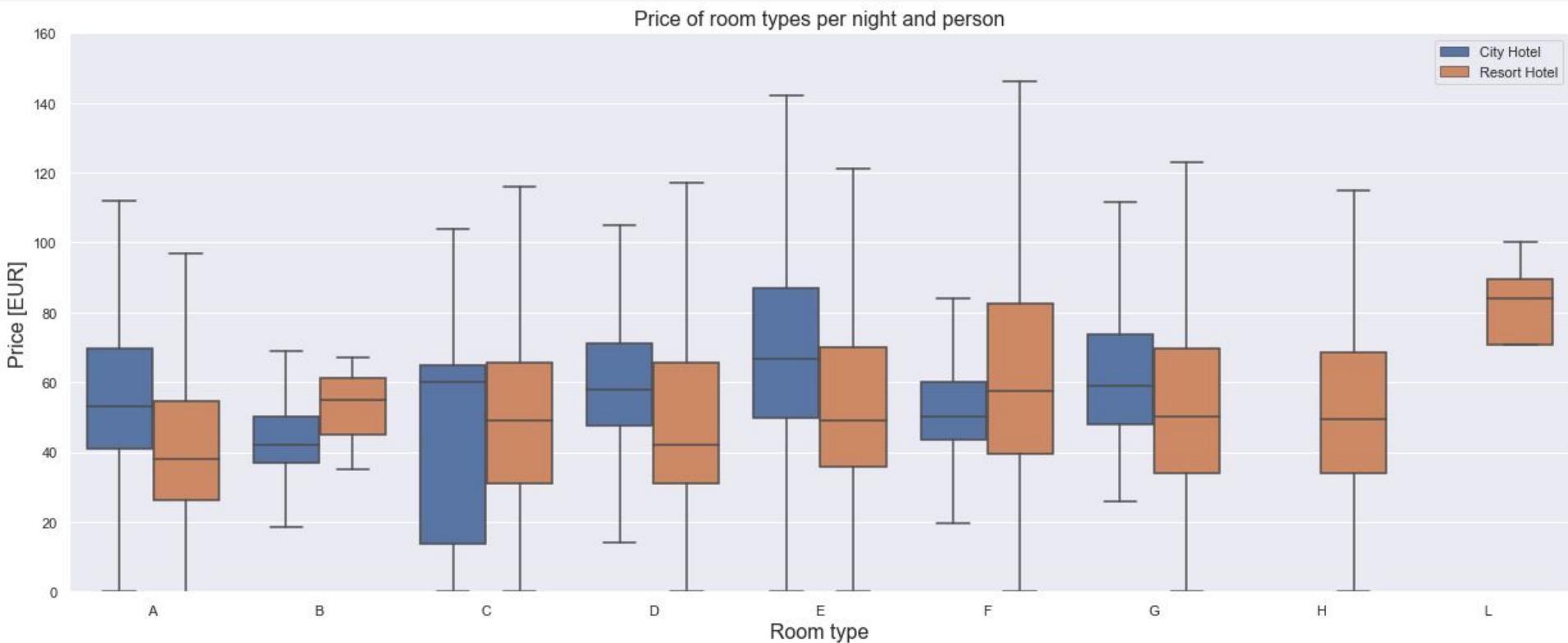
Number of customers



Type of hotel
■ Resorts
■ City

Customer types

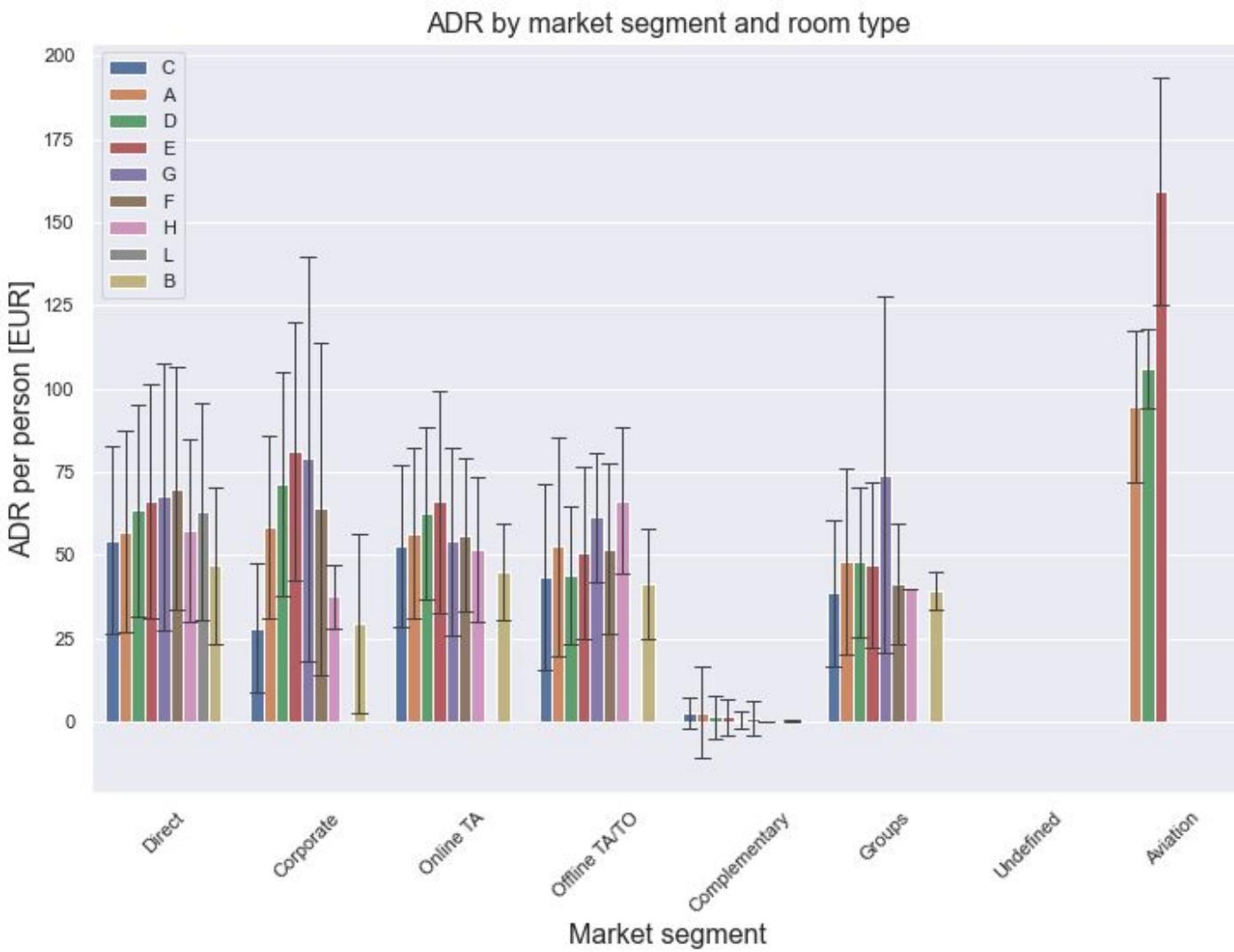
How much do guests pay for a room per night?!



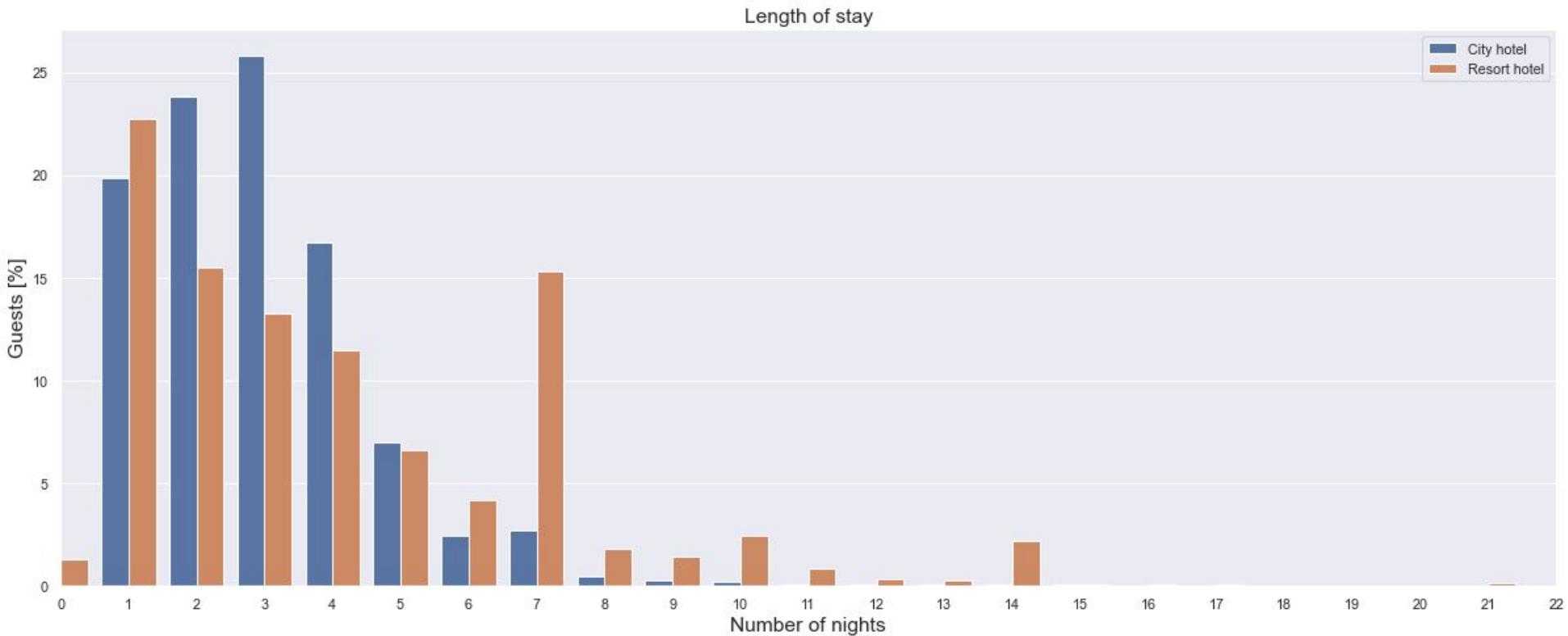
How does the price per night vary over the year?

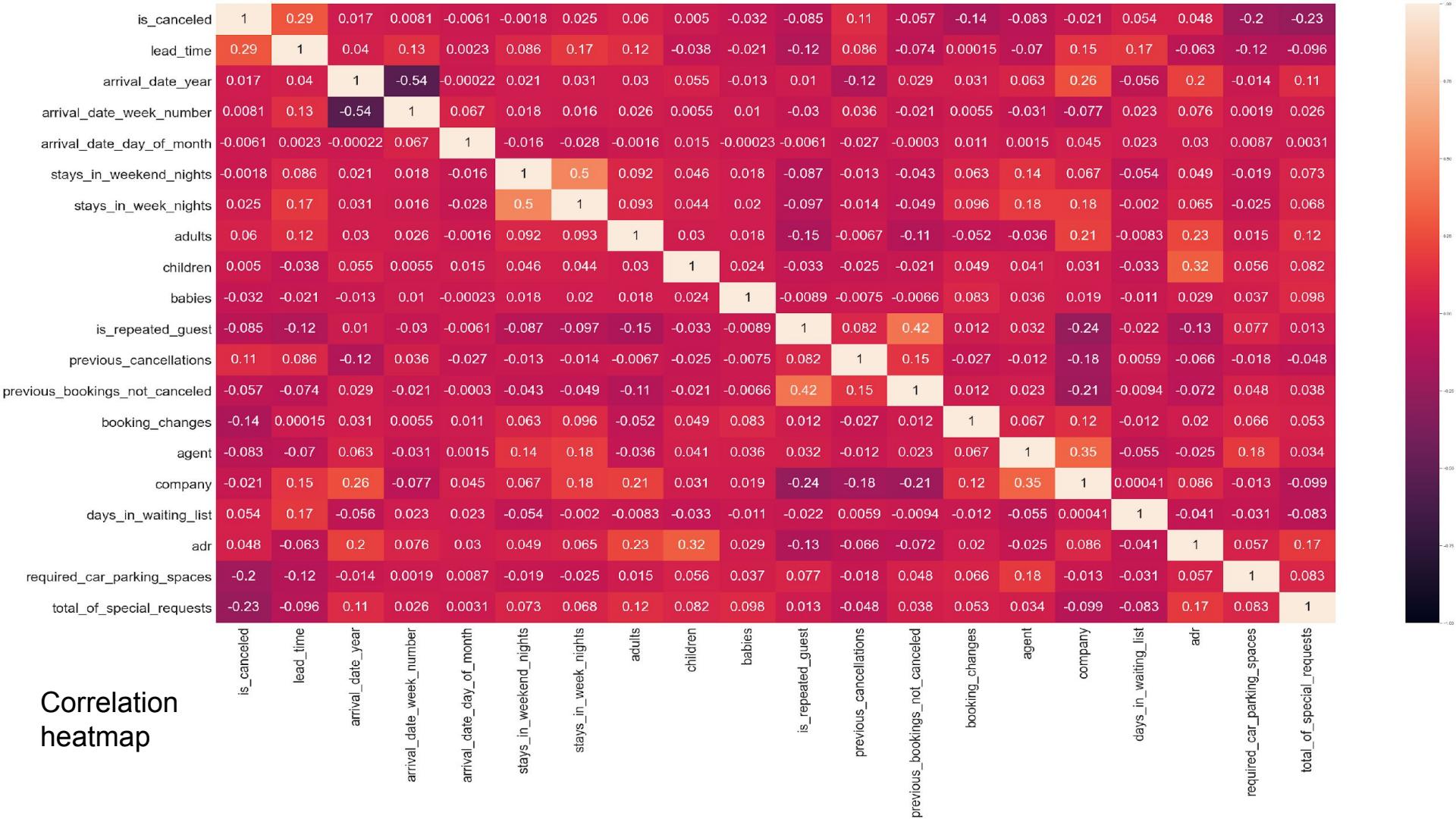


Price per night (ADR) and person based on booking and room.



How long do people stay at the hotels?







THANKS!

Do you have any
questions?

Everything we did are available in our
github
<https://github.com/Hyprnx/EDA-midterm-group-2>

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