PROJECT on HOTEL BOOKING ANALYSIS

Presented

by

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Team Member
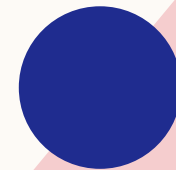
AGENDA

INTRODUCTION

This project contains the real world data record of hotel bookings of a city and a resort hotel containing details like bookings, cancellations, guest details etc. from 2015 to 2017.

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 from the data.

DATA WRANGLING

Data Cleaning:

1. This data file consist of Null values 'NaN'.

2. Replaced those null values with zeros.

Data Preparation:

1. Data file consist of different type of data type.

2. Data types: Integers, Float, Objects

3. Converted the float data type in integer data type

DATA ANALYSIS

1. Analysis of hotel dataframe
2. Hotel wise analysis
3. Analysis of booking across different year, months and days
4. Night stay analysis
5. Visitors analysis
6. Market segment analysis
7. Distribution channel analysis
8. Deposit policy of hotel
9. Meal preference analysis
10. Overview of guest
11. Correlations
12. Country wise analysis

ANALYSIS OF HOTEL DATAFRAME

- The dataset has shape of 119390 rows and 32 columns.

We are given a hotel bookings dataset. This dataset contains booking information for a city hotel and a resort hotel. It contains the following features.

- - hotel: Name of hotel (City or Resort)
- - is_canceled: Whether the booking is canceled or not (0 for no canceled and 1 for canceled)
- - lead_time: time (in days) between booking transaction and actual arrival.
- - arrival_date_year: Year of arrival
- - arrival_date_month: month of arrival
- - arrival_date_week_number: week number of arrival date.
- - arrival_date_day_of_month: Day of month of arrival date
- - stays_in_weekend_nights: No. of weekend nights spent in a hotel

- - stays_in_week_nights: No. of weeknights spent in a hotel
- - adults: No. of adults in single booking record.
- - children: No. of children in single booking record.
- - babies: No. of babies in single booking record.
- - meal: Type of meal chosen
- - country: Country of origin of customers (as mentioned by them)
- - market_segment: What segment via booking was made and for what purpose.
- - distribution_channel: Via which medium booking was made.
- - is_repeated_guest: Whether the customer has made any booking before. - previous_cancellations: No. of previous canceled bookings.
- - previous_bookings_not_canceled: No. of previous non-canceled bookings.
- - reserved_room_type: Room type reserved by a customer.
- - assigned_room_type: Room type assigned to the customer.
- - booking_changes: No. of booking changes done by customers
- - deposit_type: Type of deposit at the time of making a booking (No deposit Refundable/ No refund)

- - agent: Id of agent for booking
- - company: Id of the company making a booking
- - days_in_waiting_list: No. of days on waiting list.
- - customer_type: Type of customer(Transient, Group, etc.)
- - adr: Average Daily rate.
- - required_car_parking_spaces: No. of car parking asked in booking
- - total_of_special_requests: total no. of special request.
- - reservation_status: Whether a customer has checked out or canceled,or not showed
- - reservation_status_date: Date of making reservation status.

DATA VISUALIZATION

1. The pie chart show percentage of booking analysis of hotel ie, in city hotel and resort hotel
2. The no of booking in city hotel is more than resort hotel

Type of Hotel
Percentage of Booking

Resort Hotel

38.9%

61.1%
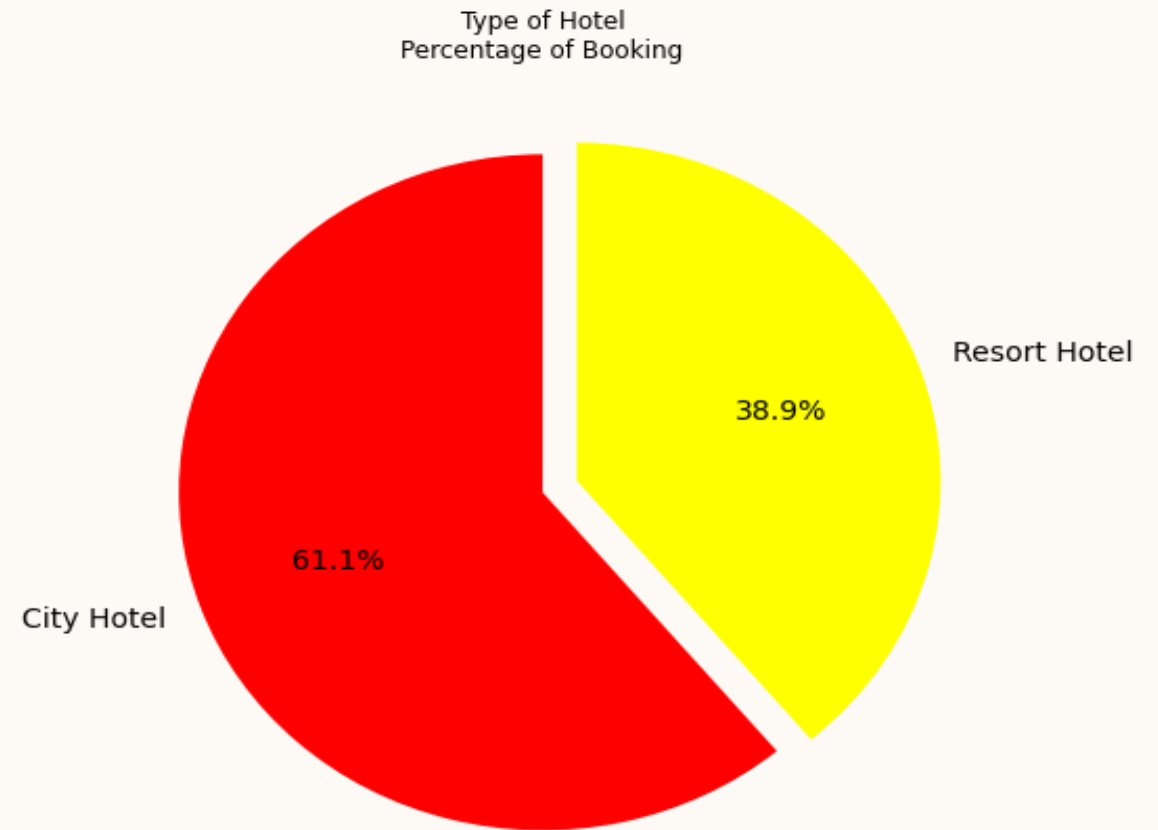
City Hotel

❑Checked-in and cancelled booking, In data set city hotel has more number of visitor checked in and cancelled as compare to resort hotel.
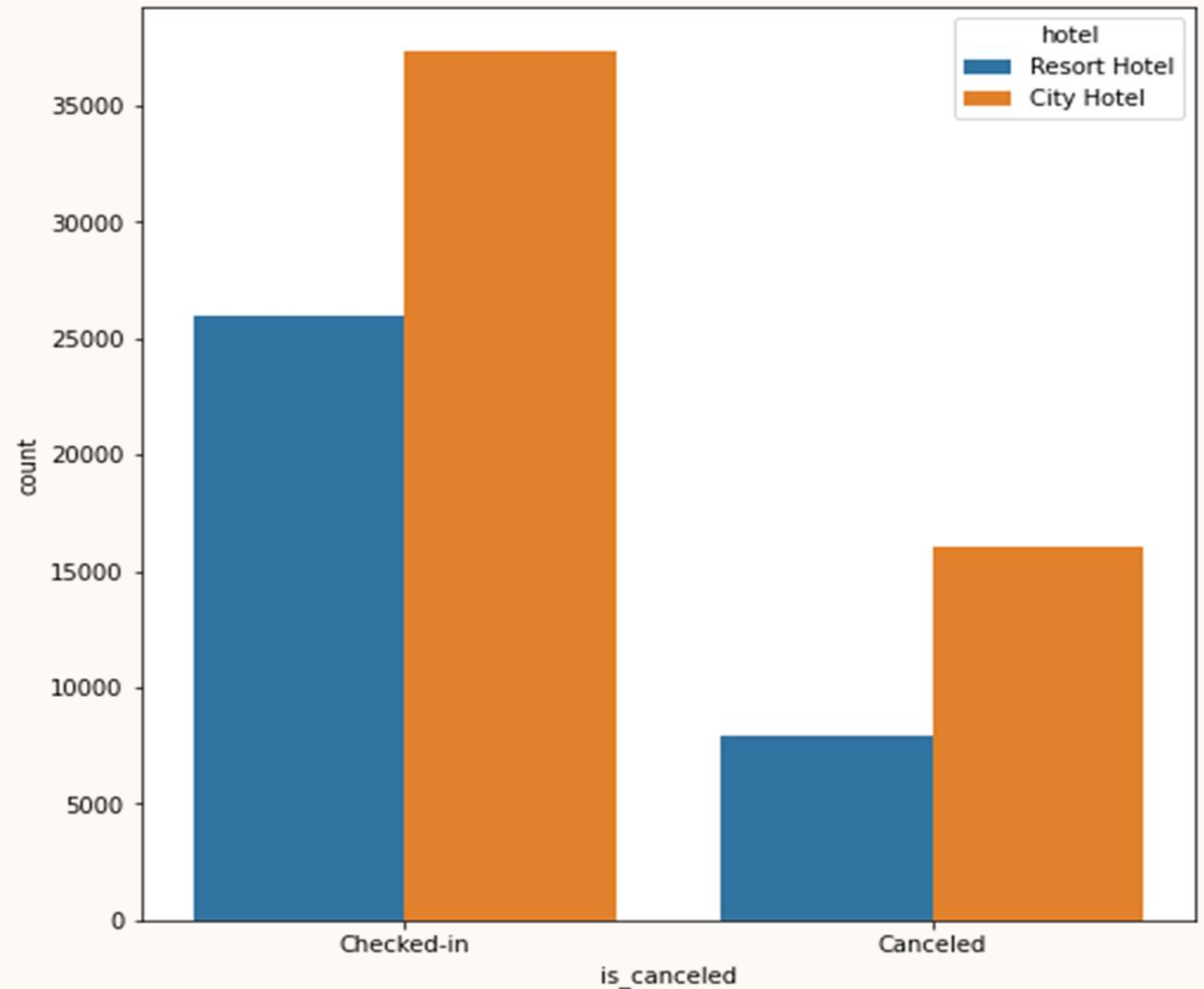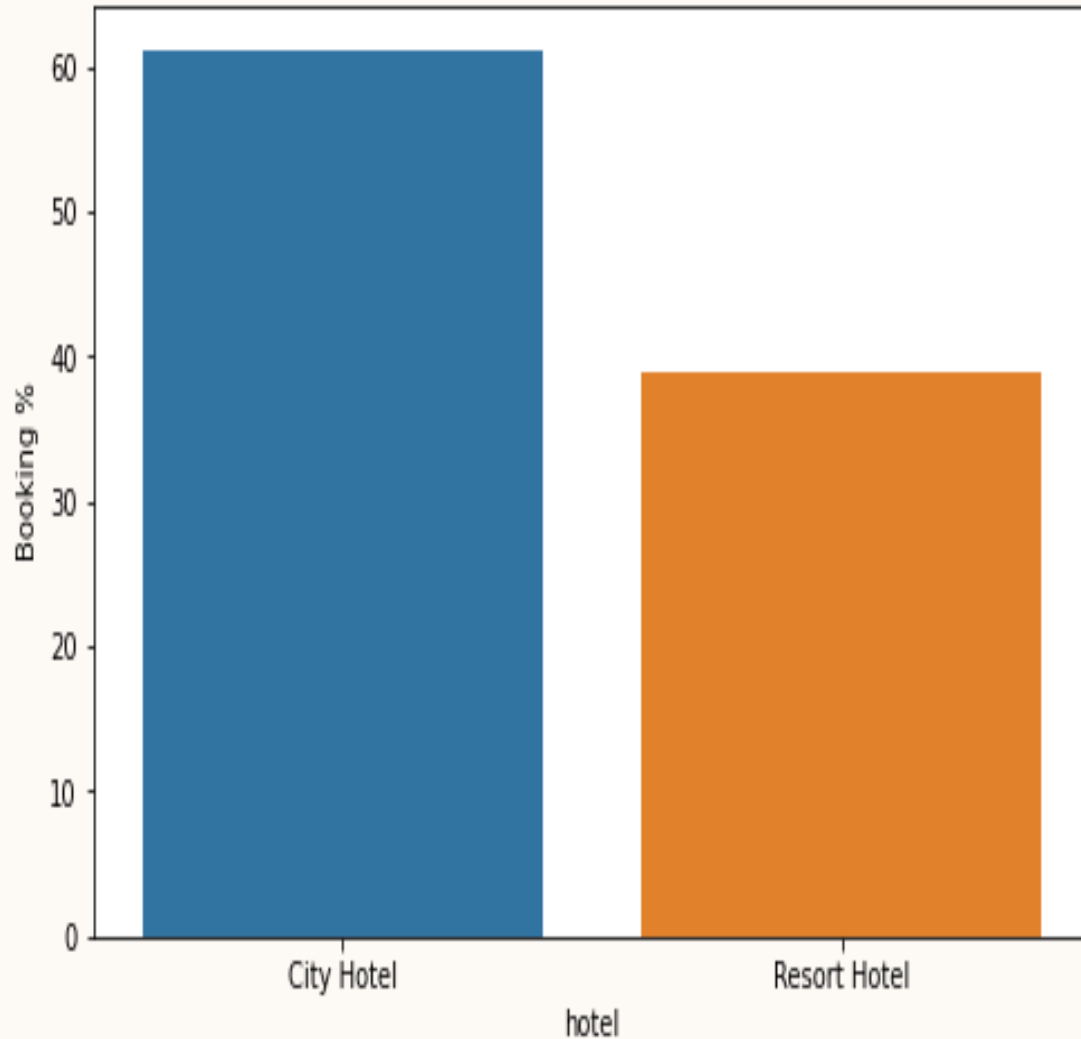
❑ Booking percentage of city hotel is 60% and resort hotel is 40%. so, the booking percentage of city hotel is more than resort hotel by 20%.
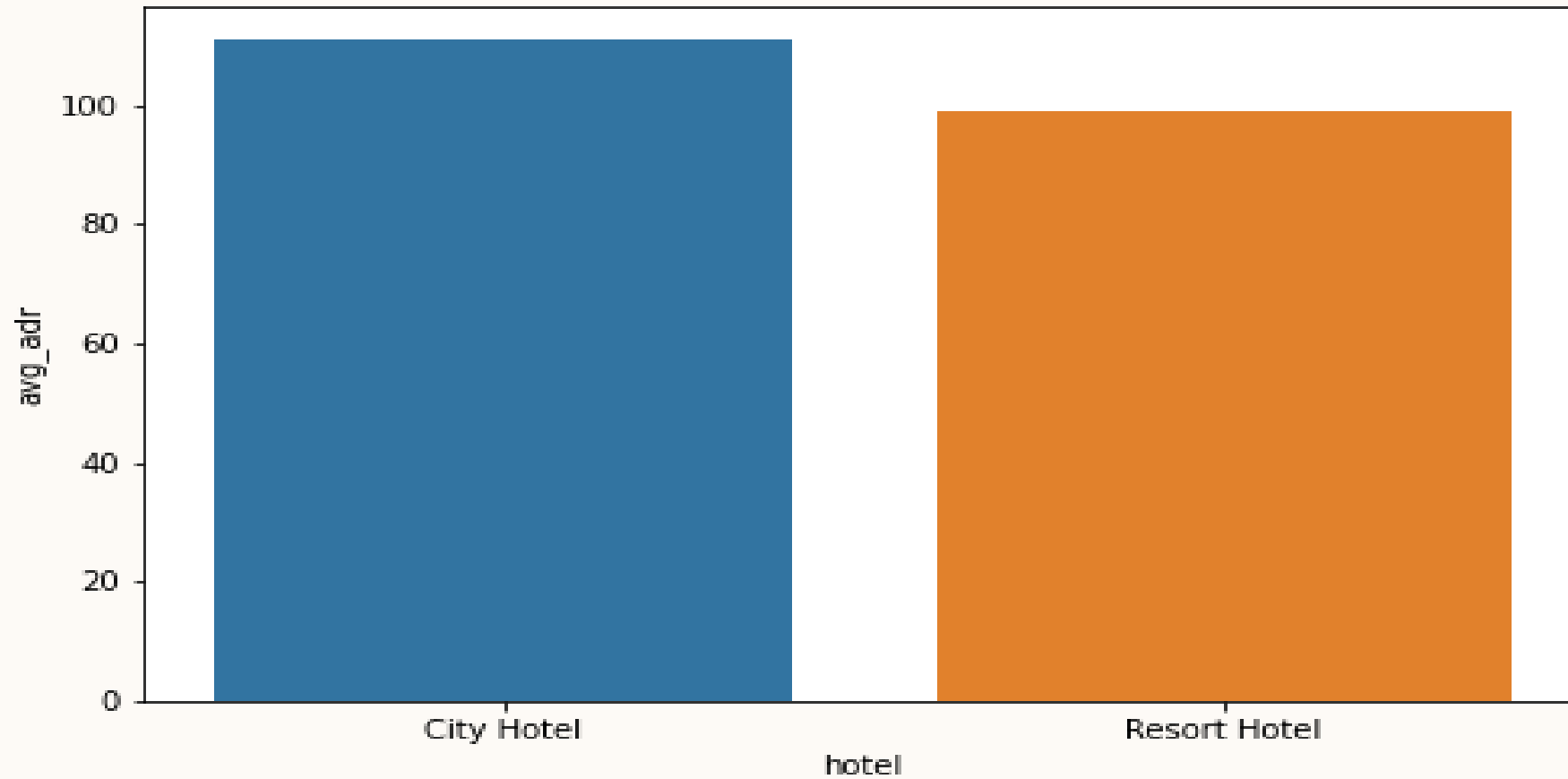
❑ As per ADR report, revenue collection of the city hotel is more than resort hotel.

COMPARISON BETWEEN REPEATED CUSTOMER IN TWO HOTEL
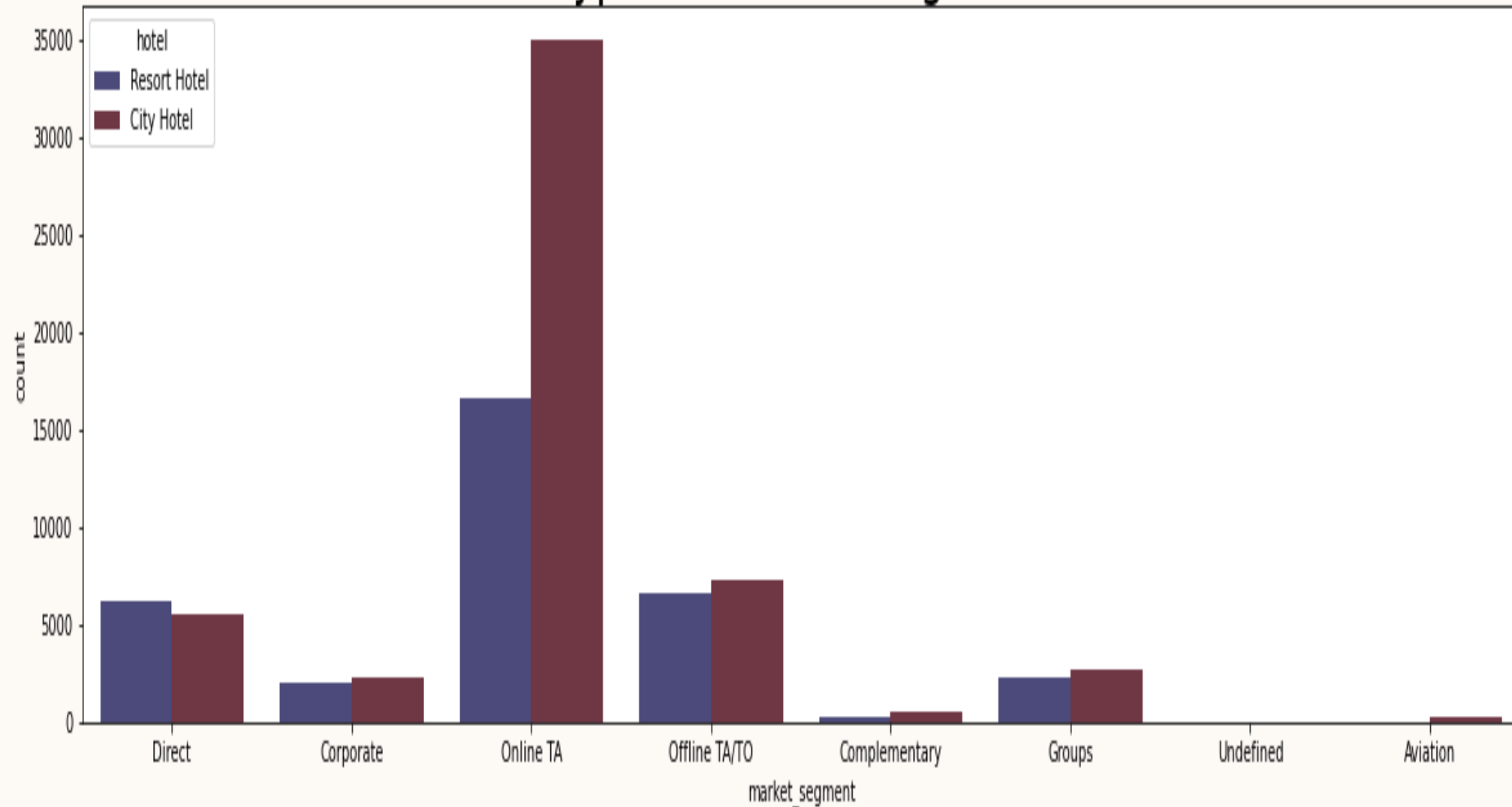
BOOKING ACROSS DIFFERENT YEAR
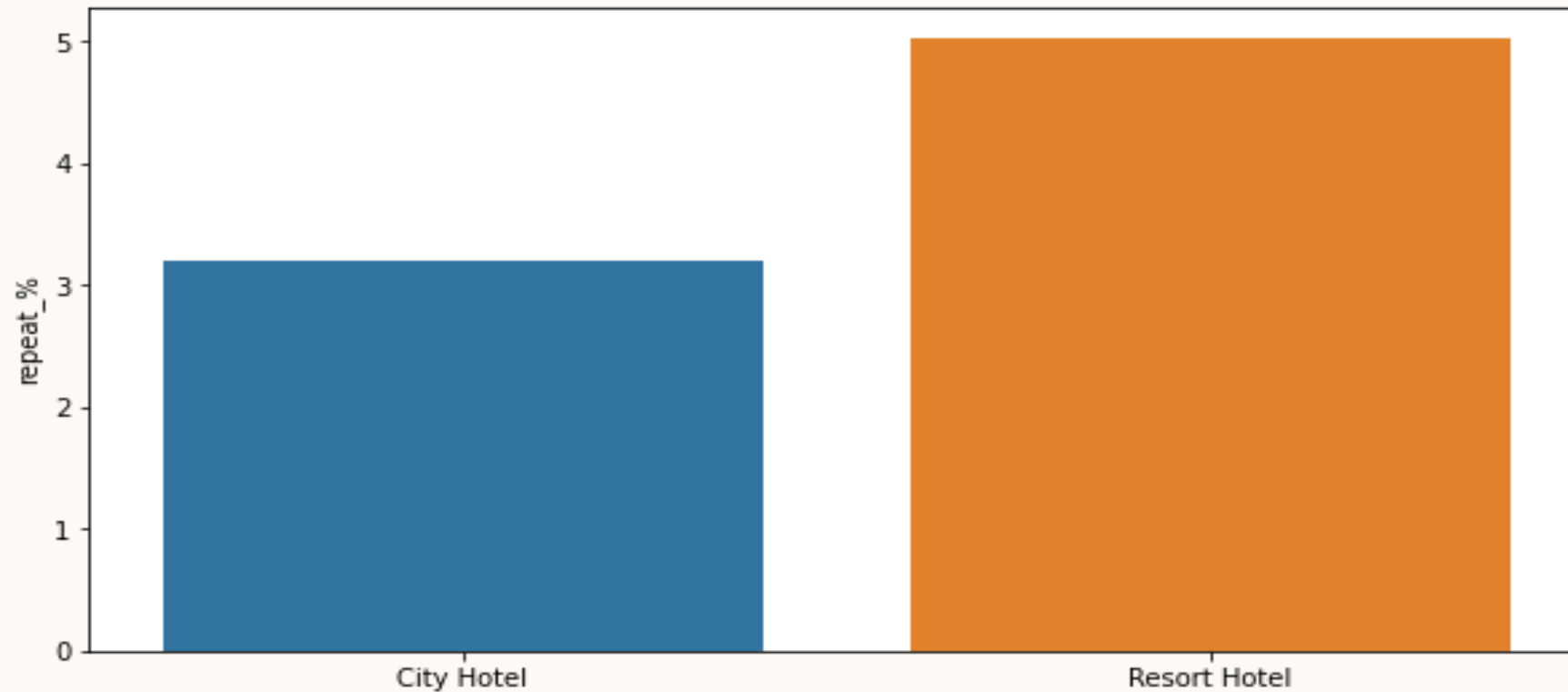
No of arrival Across Different Year
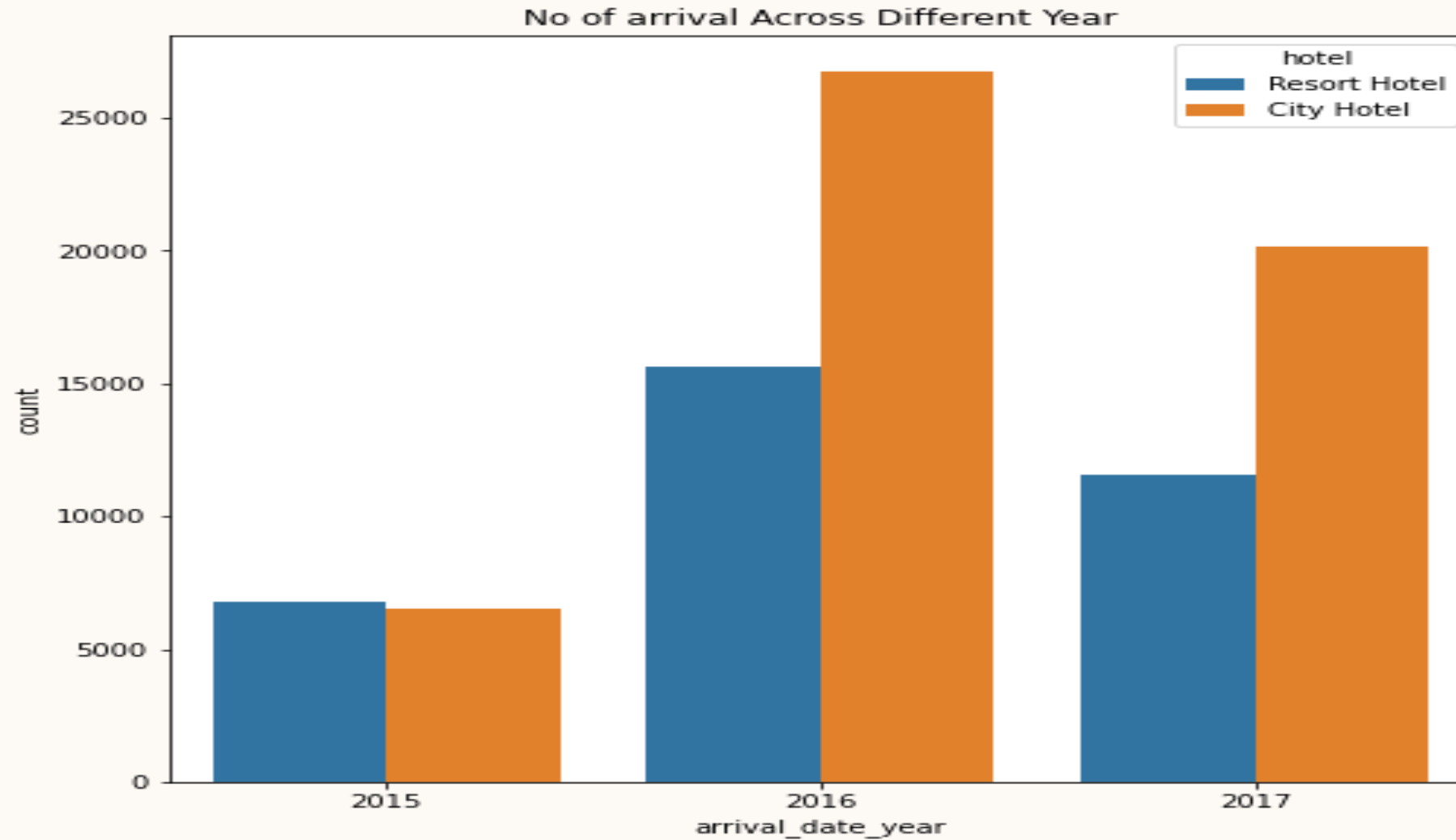
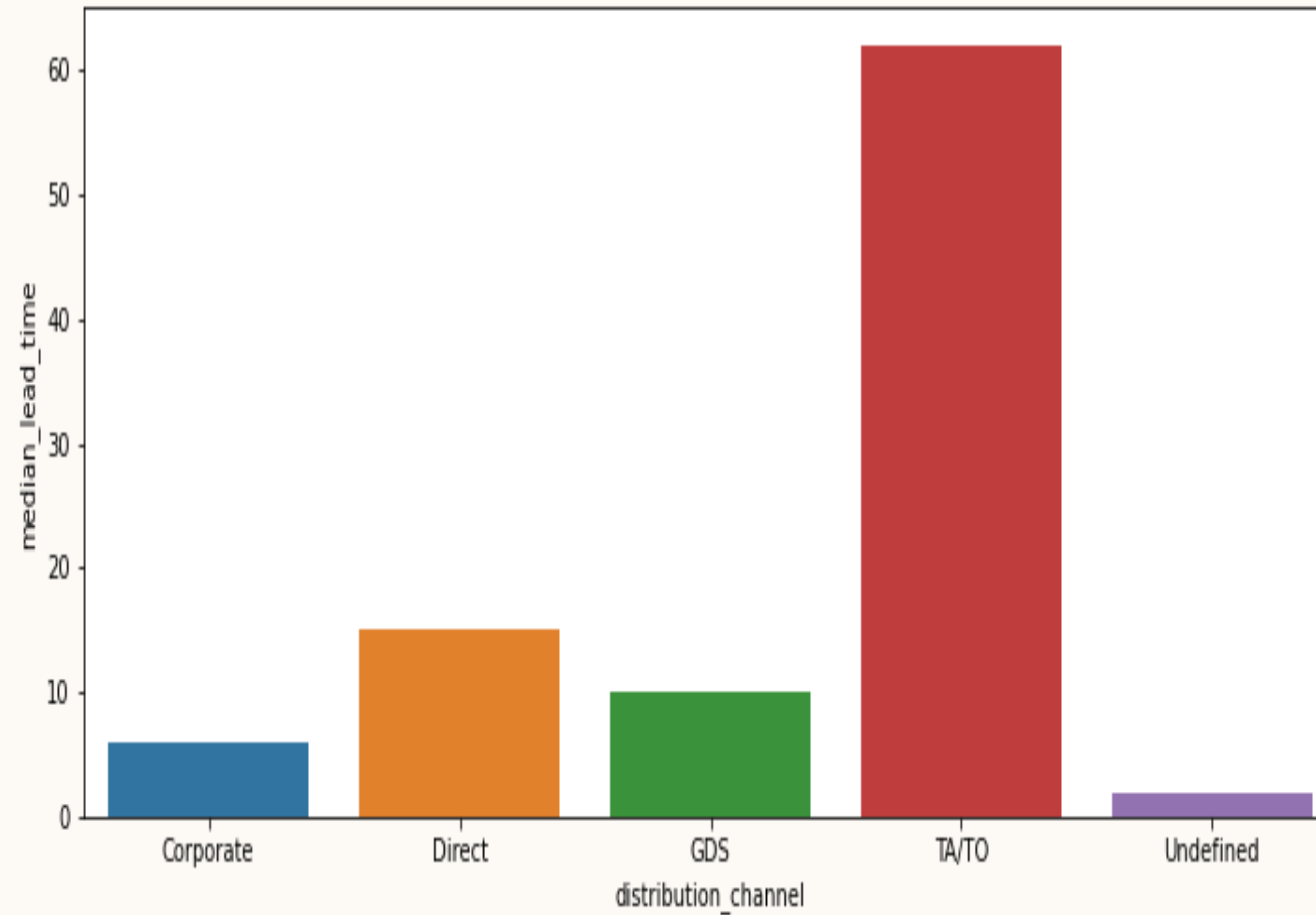# NIGHT STAY DURATION
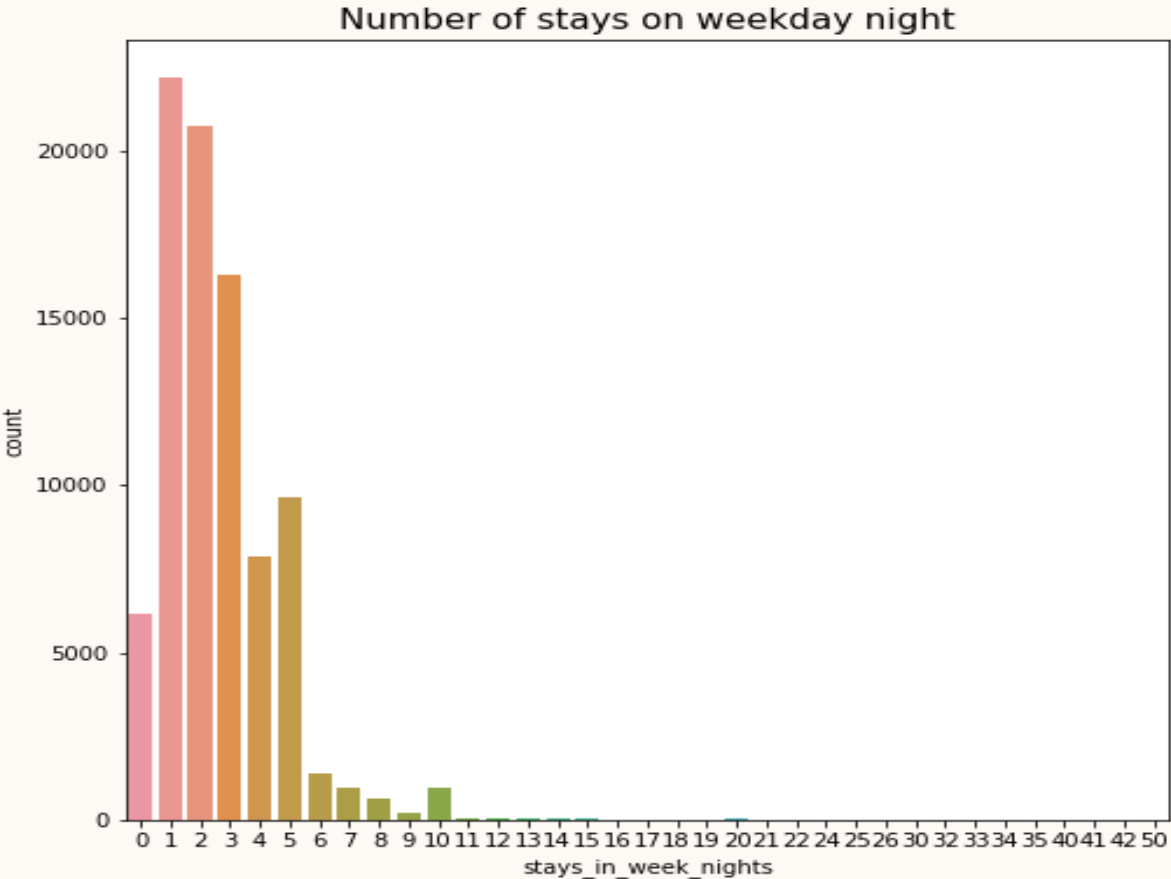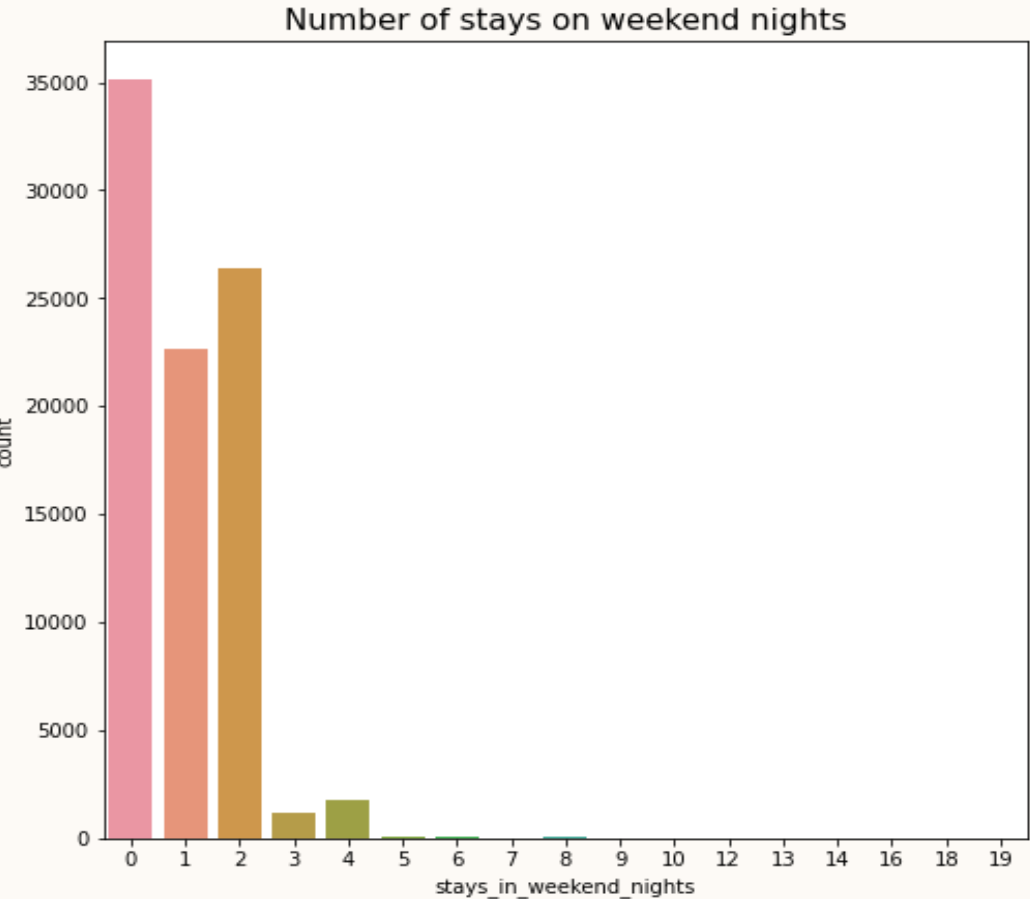
TYPE OF VISITOR :
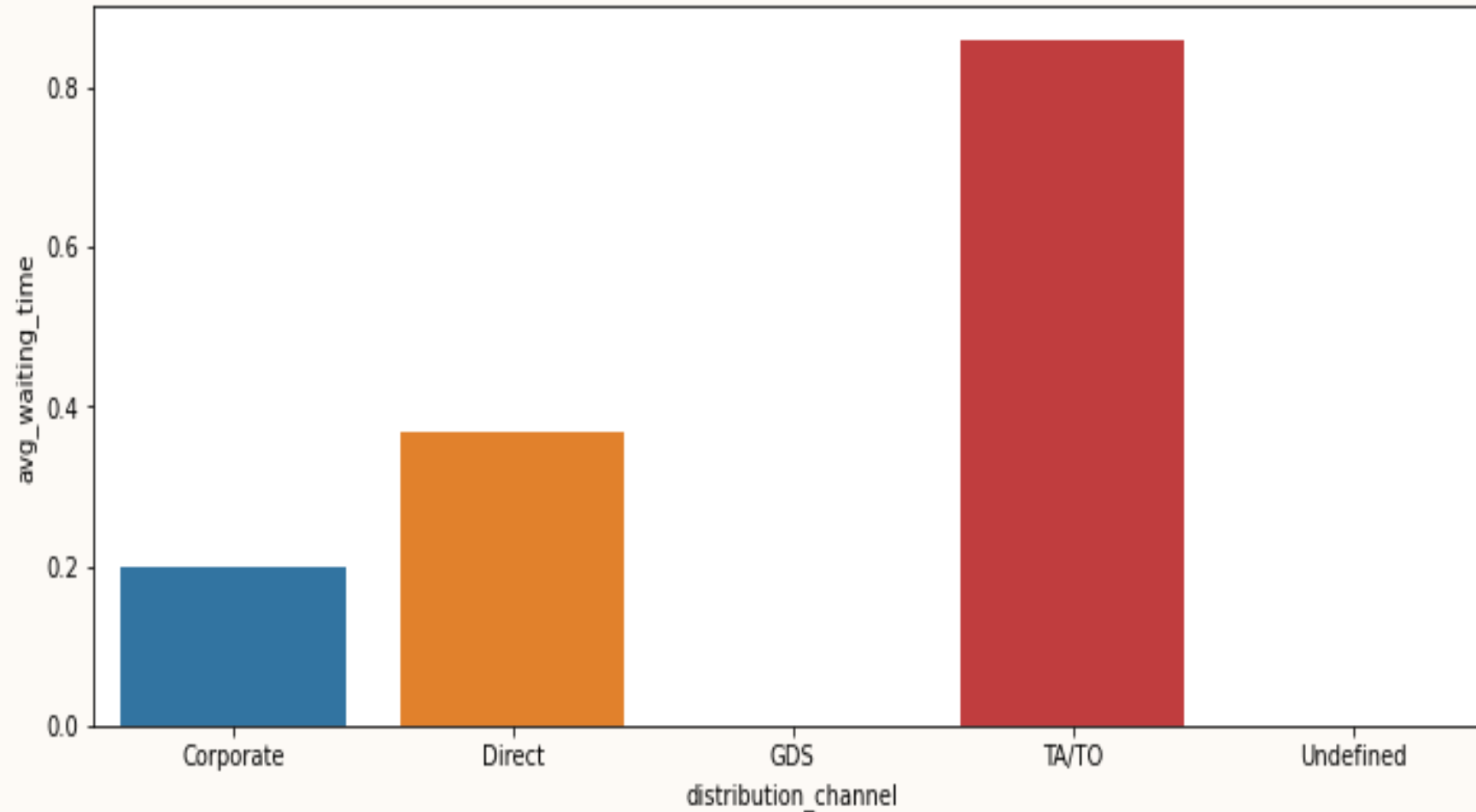# Adults, children, babies
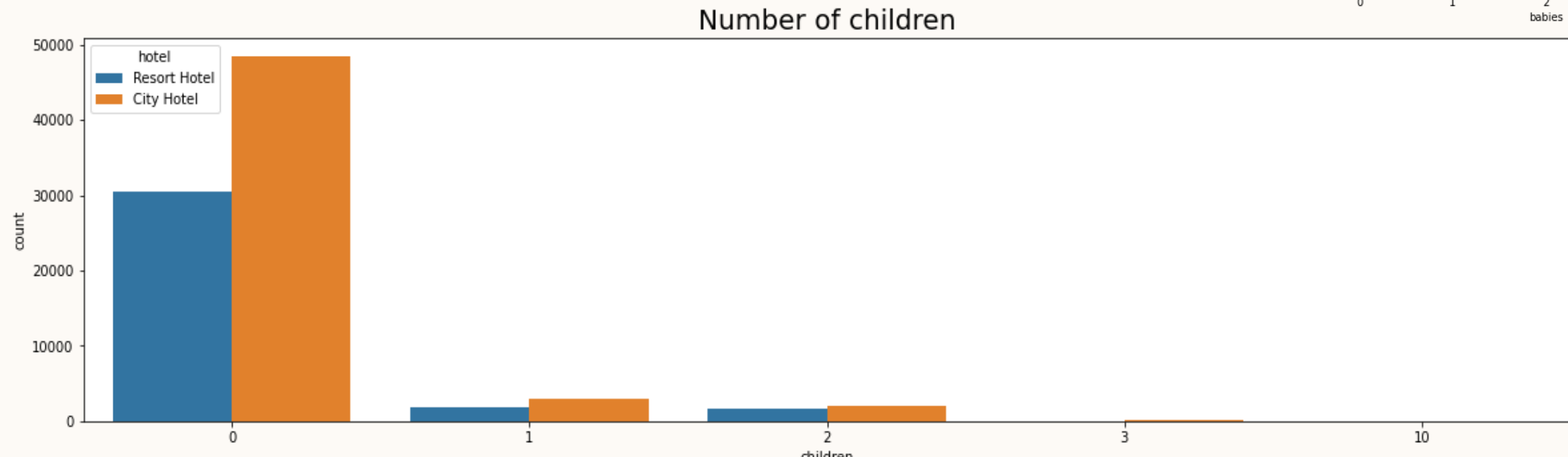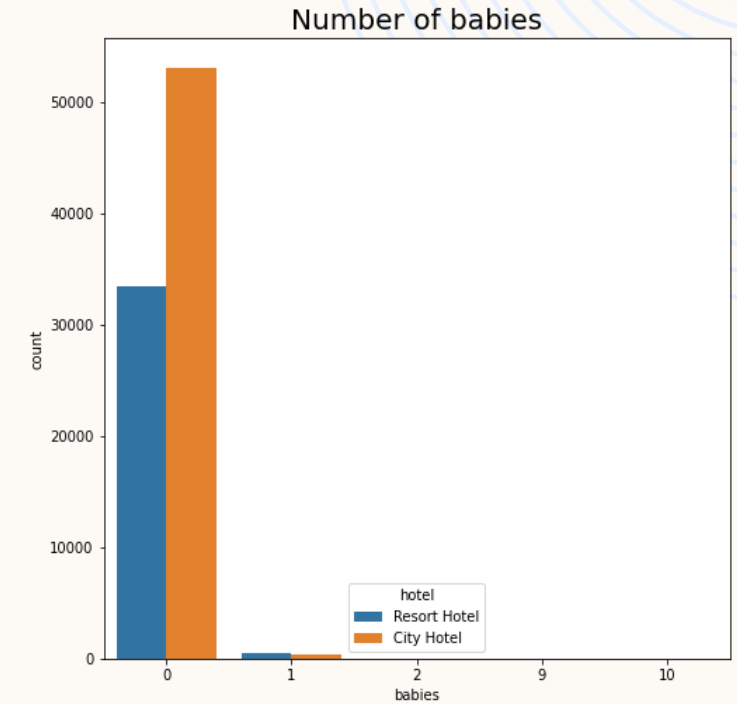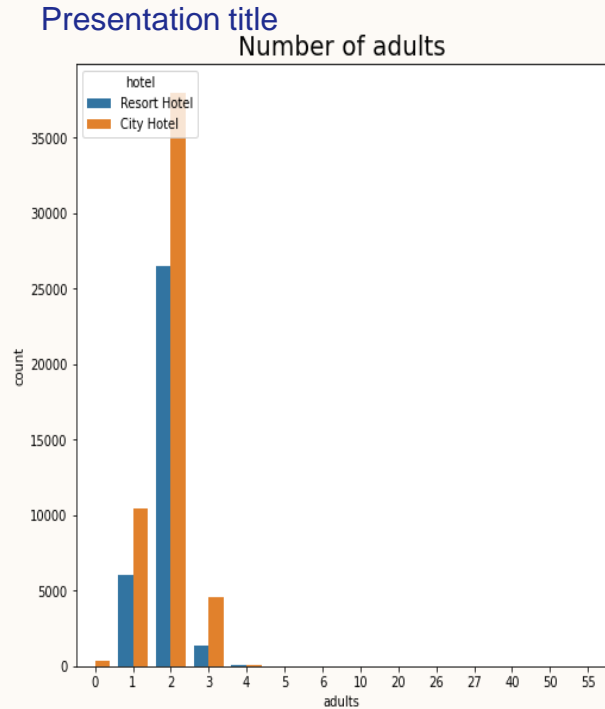
MARKET SEGMENT

Types of market segment
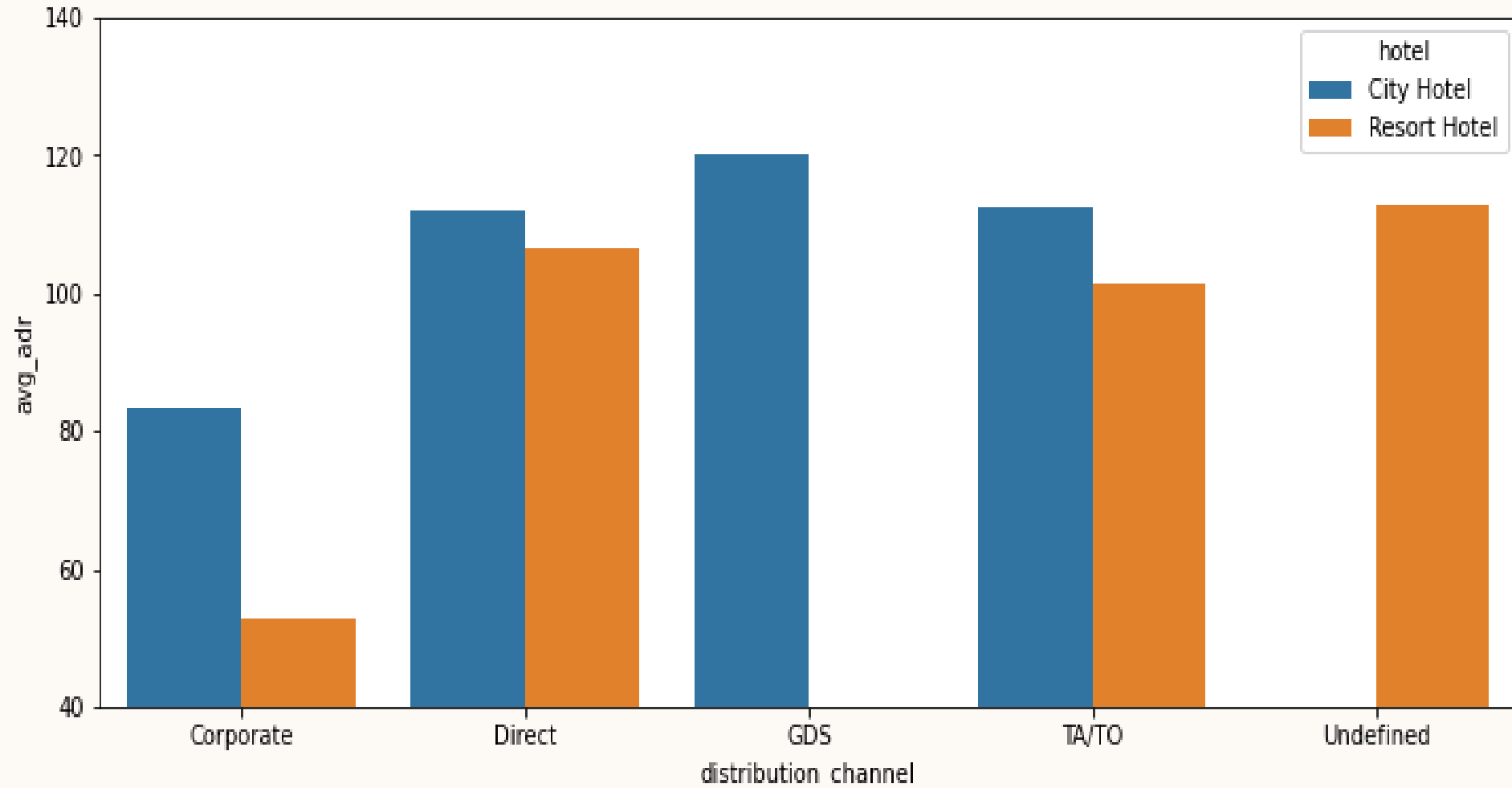
DISTRIBUTION CHANNEL ANALYSIS BY MEDIAN LEAD TIME
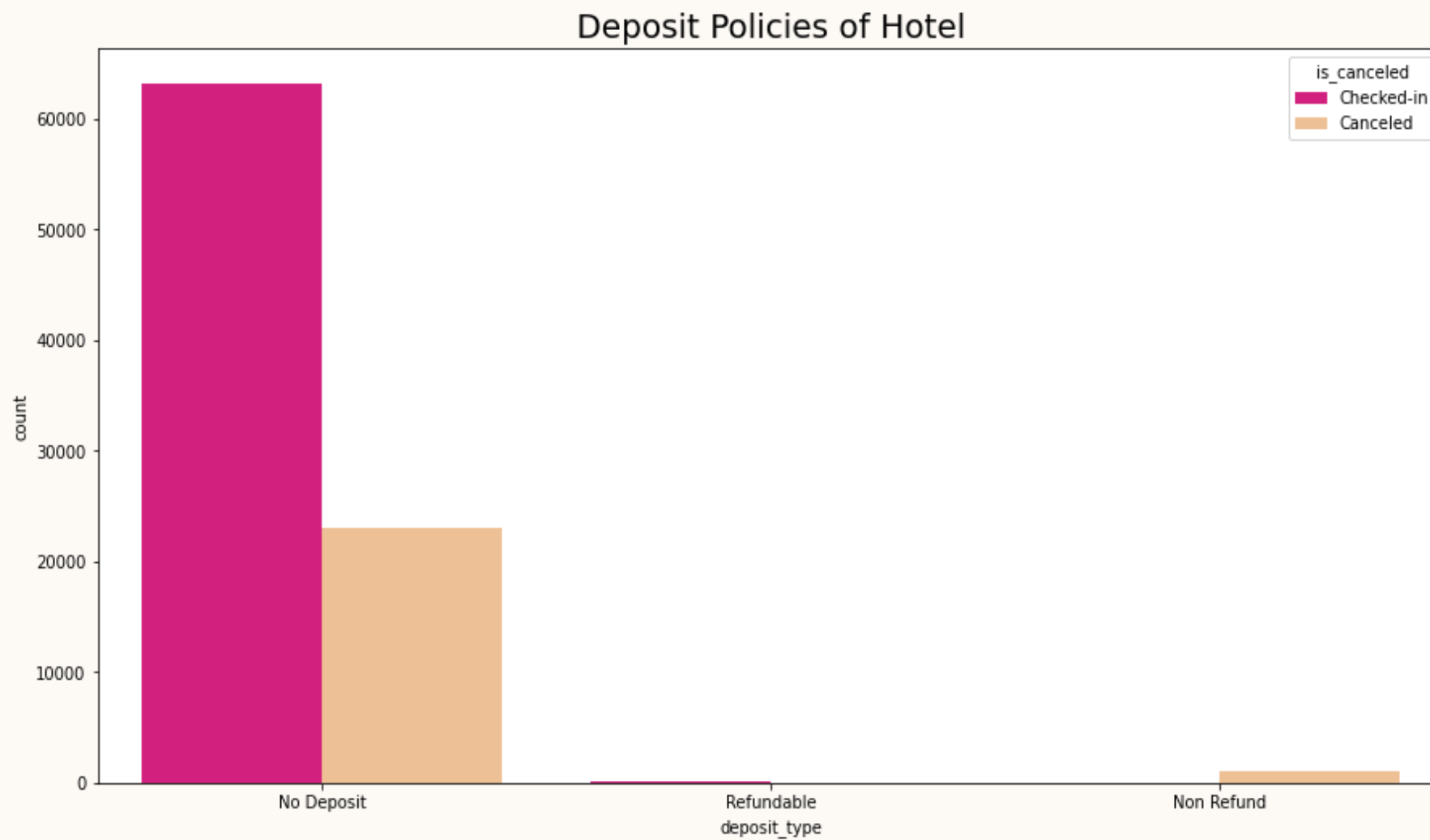
DISTRIBUTION CHANNEL ANALYSIS BY AVERAGE WAITING TIME

Presentation title
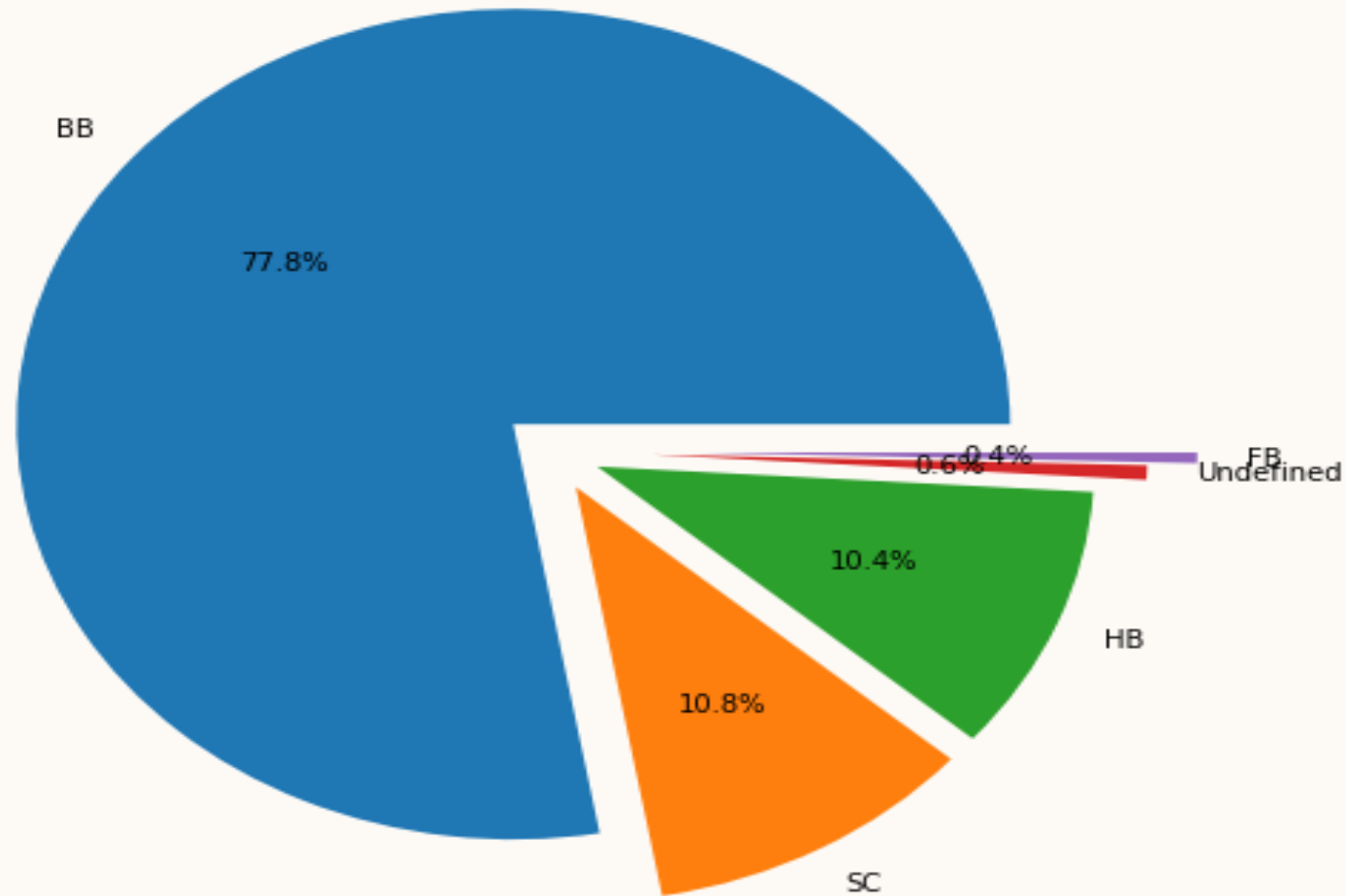
DISTRIBUTION CHANNEL ANALYSIS BY AVERAGE ADR
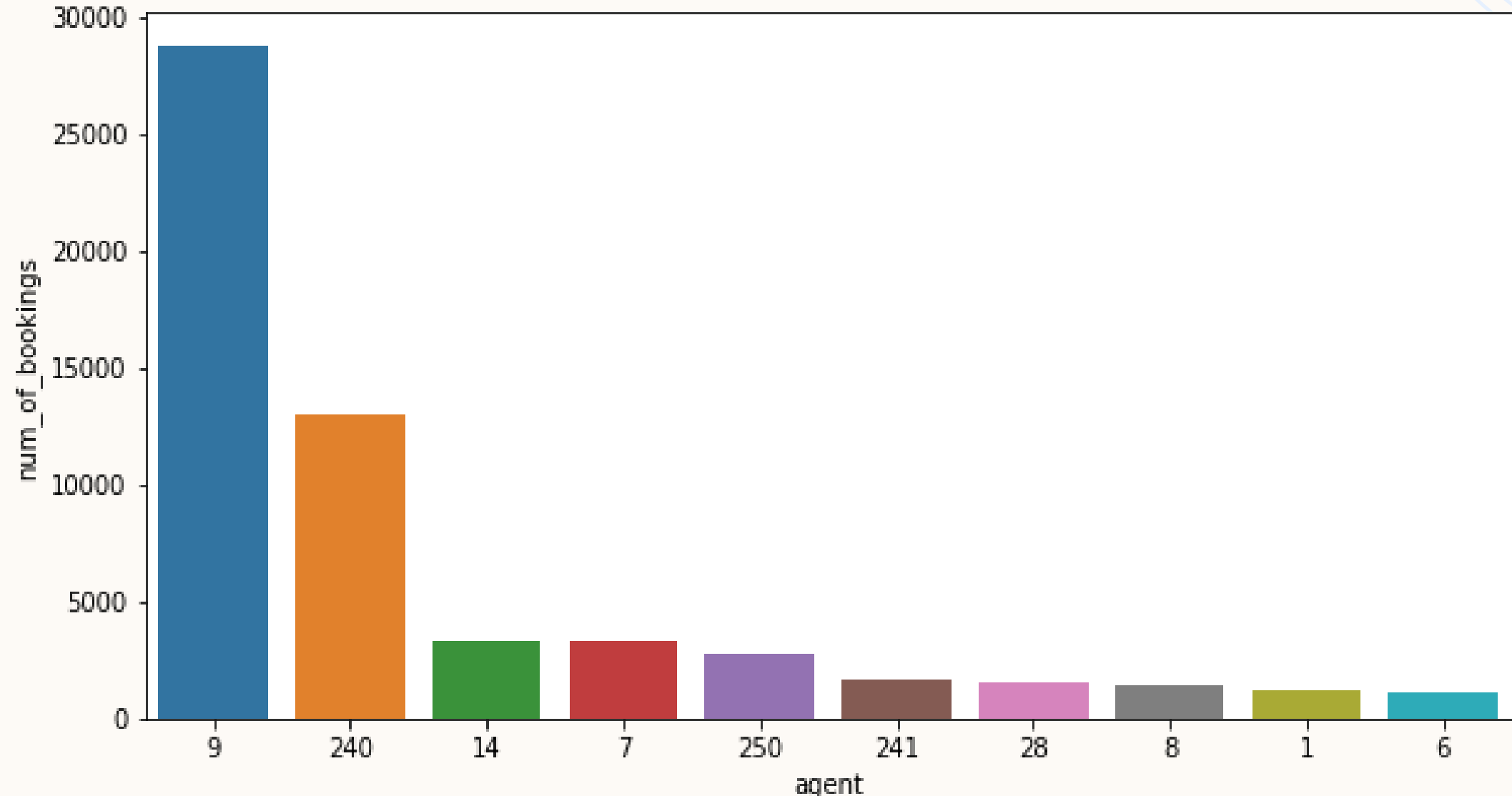
DEPOSIT POLICIES OF HOTEL
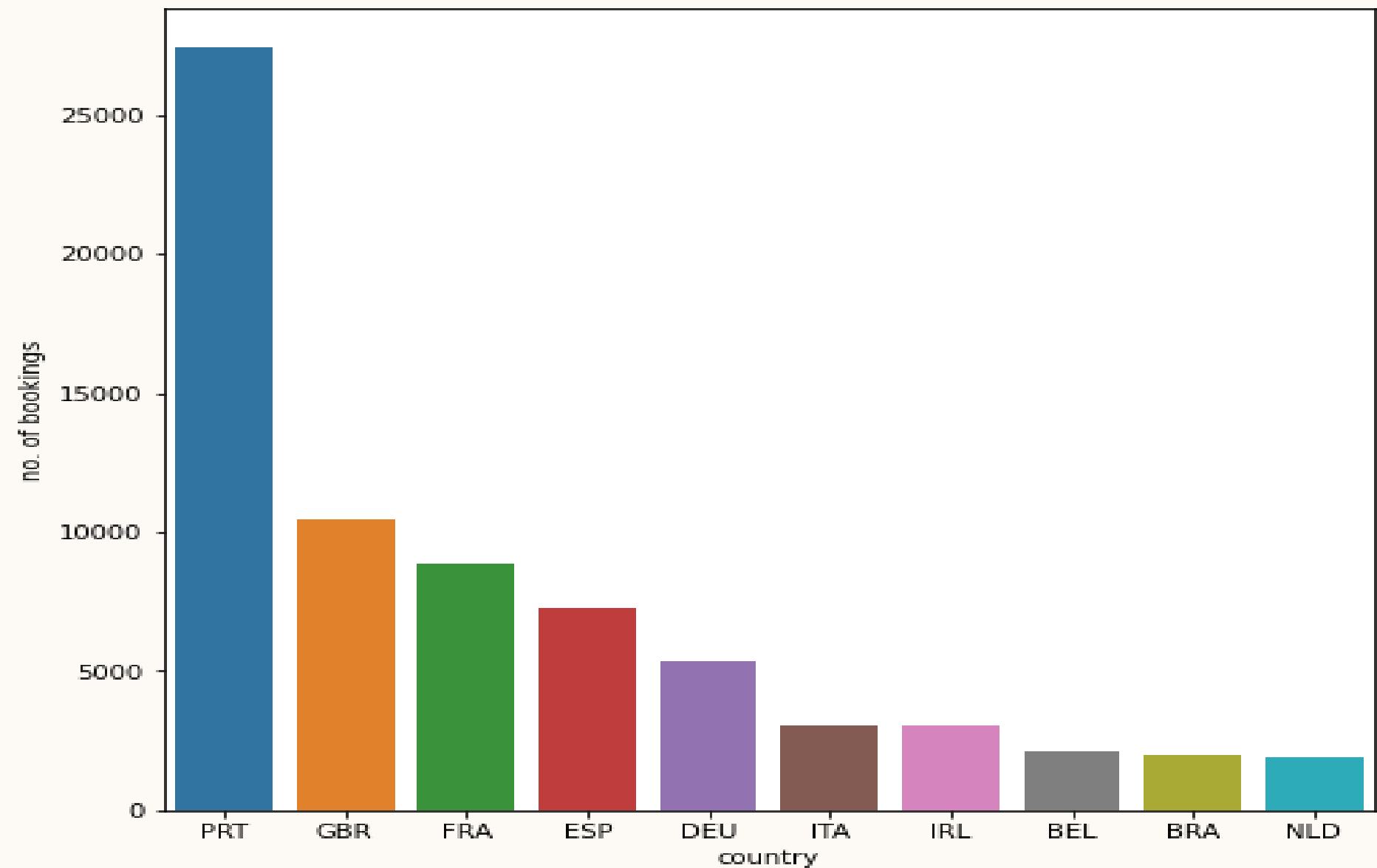
MEAL PREFERENCE

Percentage of meal preference
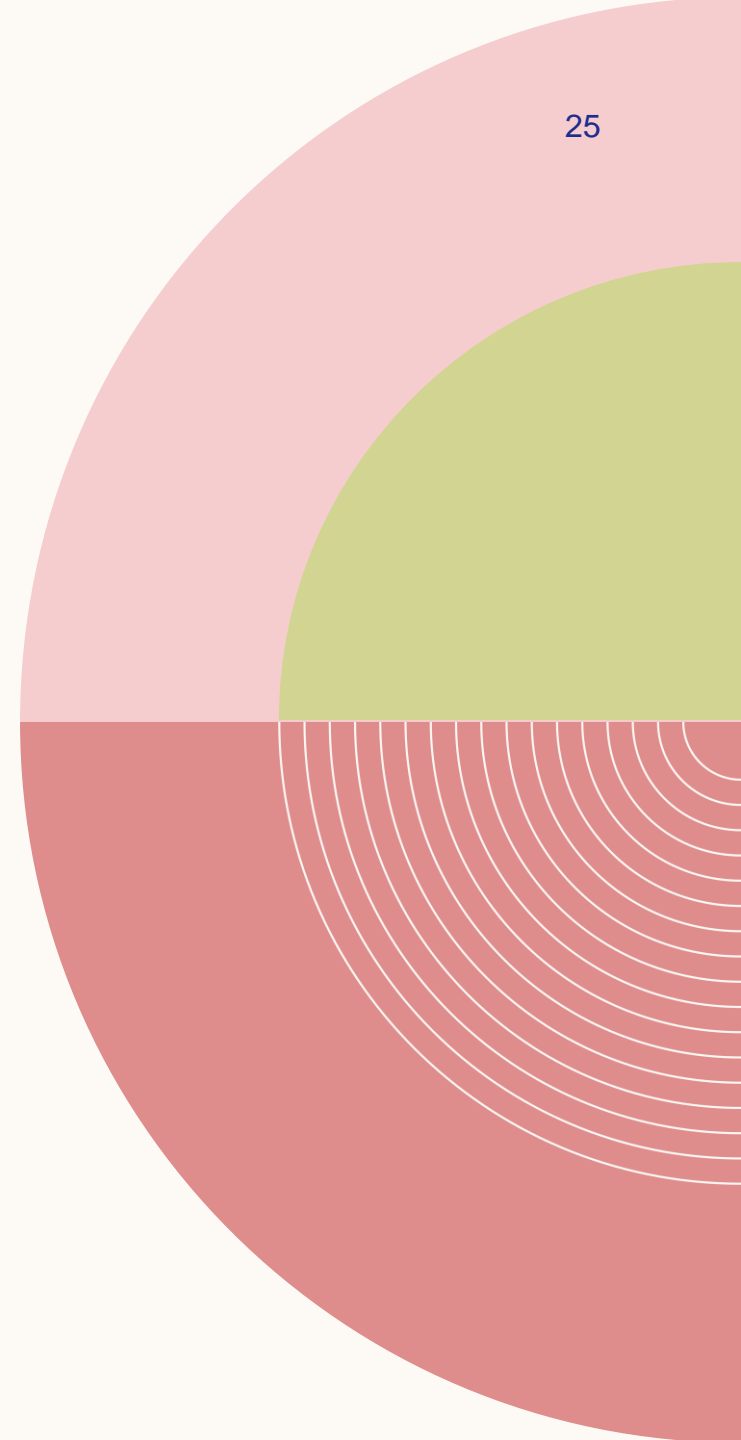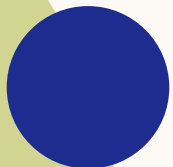
NO OF BOOKING ACCORDING TO AGENT

COUNTRY WISE DATA ANALYSIS

SUMMARY

•Majority of the hotels booked are city hotel. Definitely need to spend the most targeting fund on those hotel.

•We also realize that the high rate of cancellations can be due high no deposit policies.

•We should also target months between May to Aug. Those are peak months due to the summer period.

•Majority of the guests are from Western Europe. We should spend a significant amount of our budget on those area.

•Given that we do not have repeated guests, we should target our advertisement on guests to increase returning guests

THANK YOU