

# Capstone Project-1

## Hotel Booking Analysis

Chandrashekhar Awate

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# Why Hotel Booking Analysis?

Contribution to  
Economy

Growing Industry

To help Industry  
scientifically

Analyzing the patterns  
available in the past data  
more important to help  
the hotels plan better

Using the historical data,  
hotels can perform  
various campaigns to  
boost the business.

# Dataset Information

1)Shape of Data (119390, 32)

There are 32 columns and 119390 Rows

2)Most of the null values found in column 'Company' and 'agent'

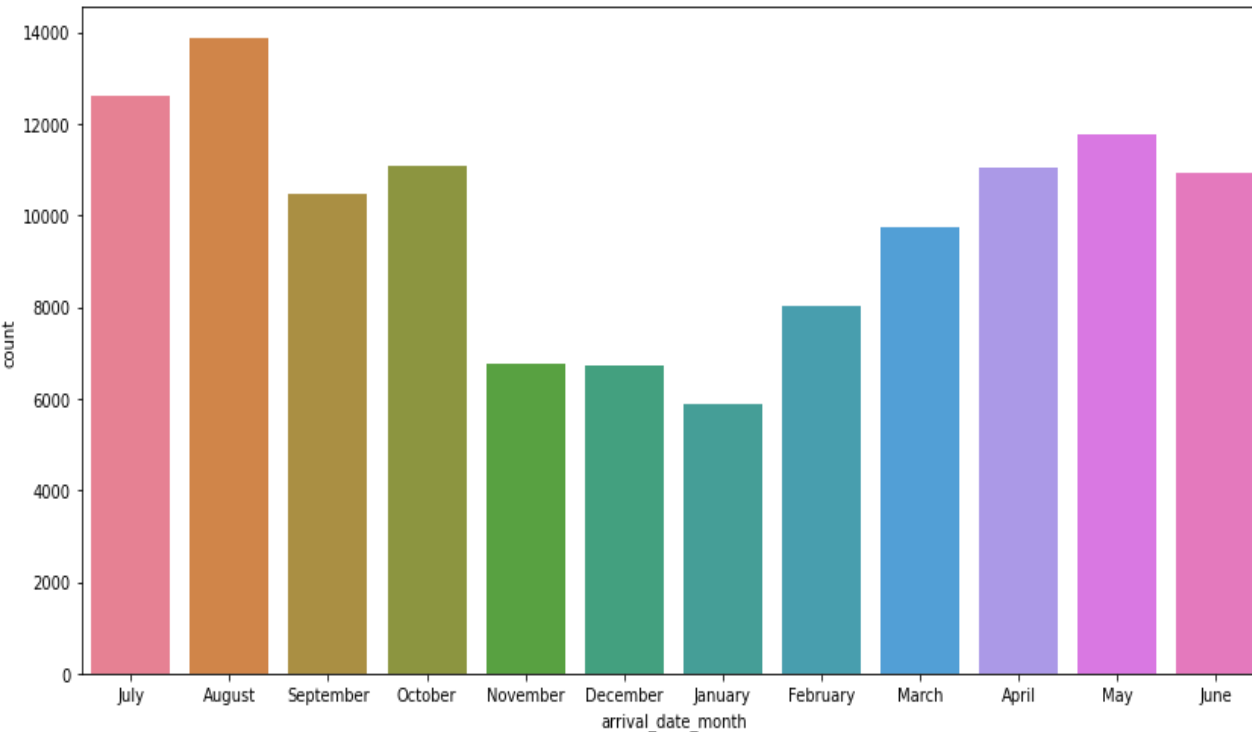
3)There were some outliers,For better results we will remove them.

4)Some null values also seen in Country column,we will drop then

5)We will drop 'Days in waiting list' column as we are doing anlysis on current data.

# Data visualisation and Key Findings

## 1) Most popular month for booking a Hotel



*Most occupied month is August with 11.65% booking and january is most unoccupied with 4.94% bookings*

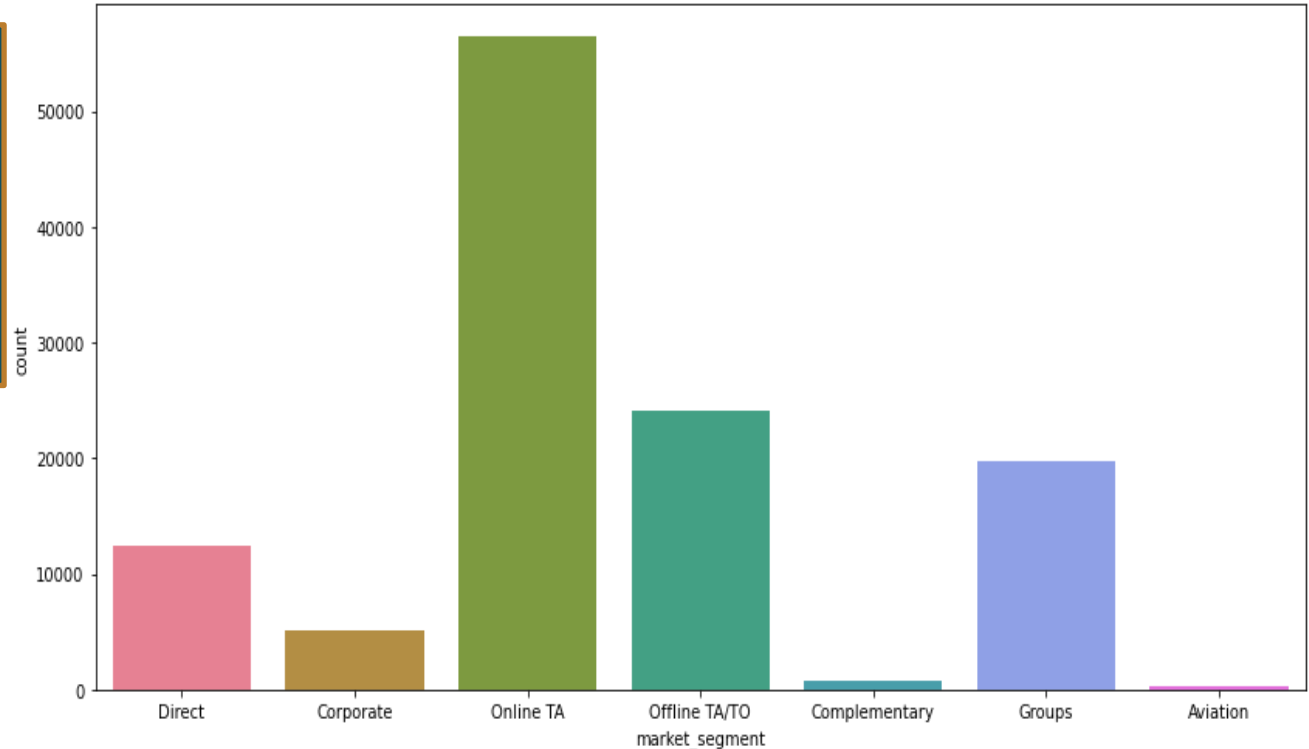
## 2) Home country of visitors?



Portugal tops the list with 48,586 of the cases, followed by Great Britain with 12,129 and France with 10,415

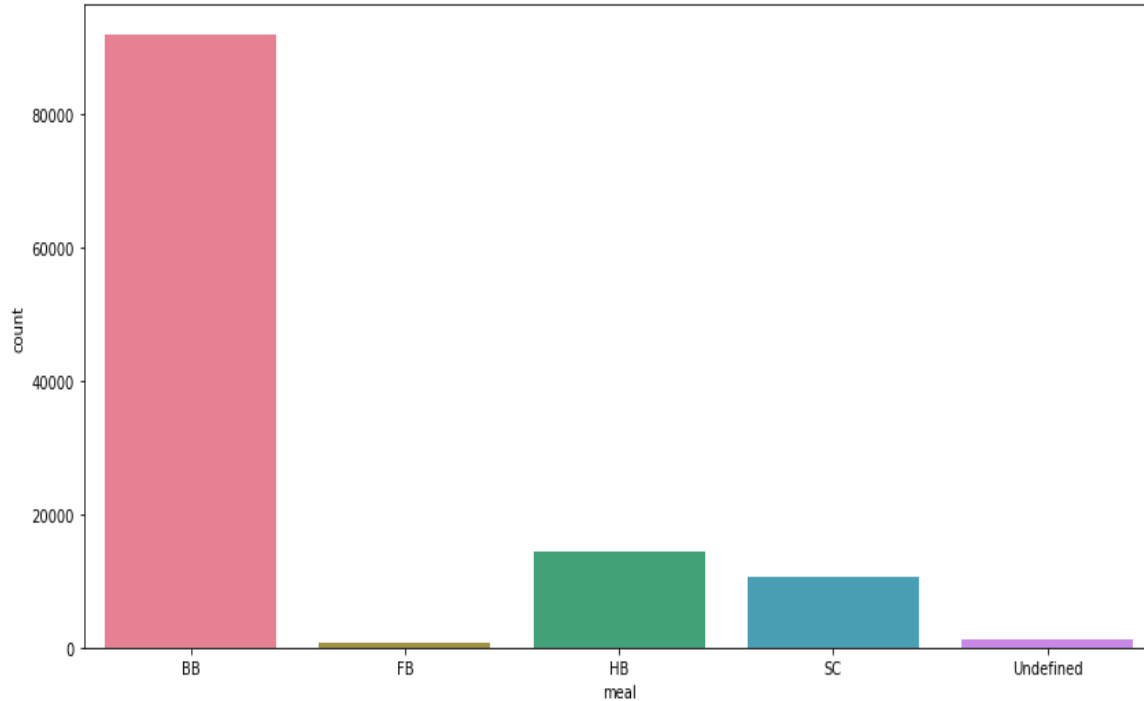
### 3) Which Market segment Booked Hotels in huge amount

*Around 47% of bookings are made via Online Travel Agents, almost 20% of bookings are made via Offline Travel Agents and less than 20% are Direct bookings without any other agents.*





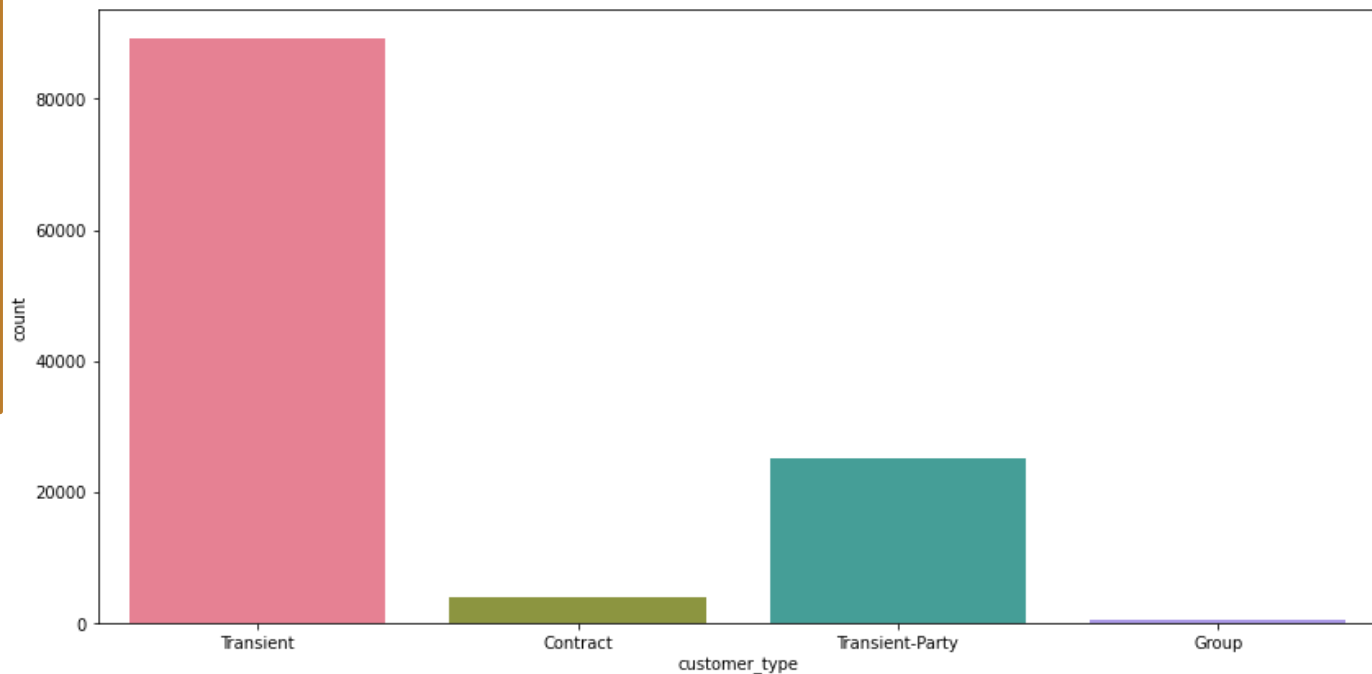
## 4) Famous Meal types



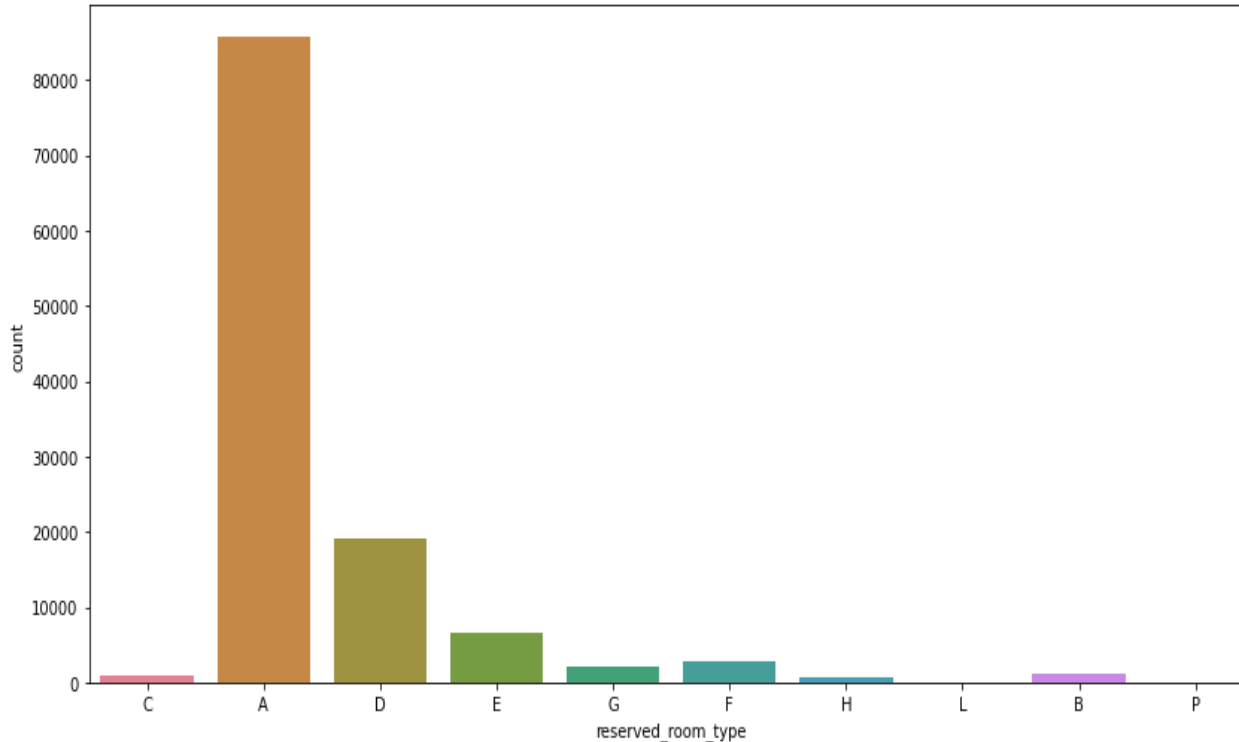
*Almost 77% Meals booked are of BB type followed by HB with 12%*

## 5) Customer type influence on Bookings?

*Almost 75% Bookings are of Transient Type followed by Transient party type with 21% and remaining percentage of bookings shared by Contract type and Group type with 3% and 0.4% respectively.*



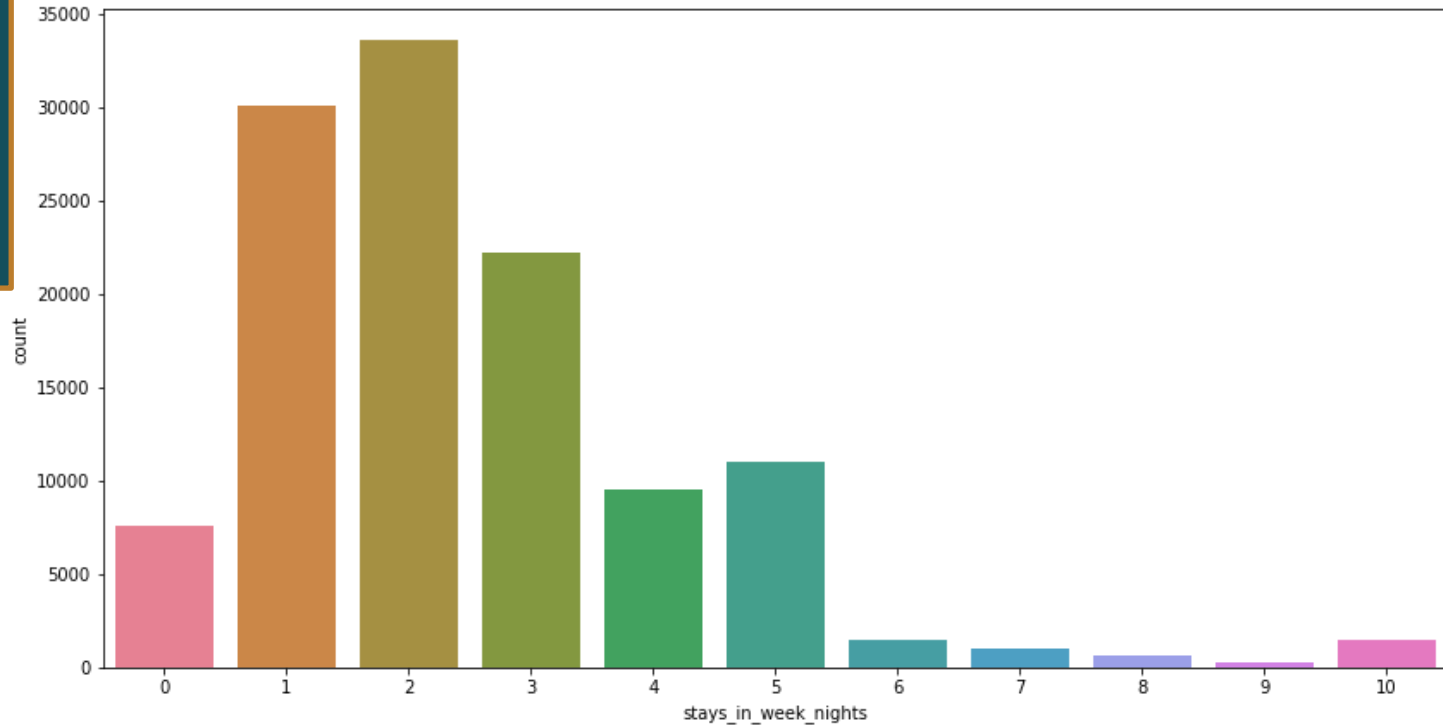
## 6) Famous Room Type across people?



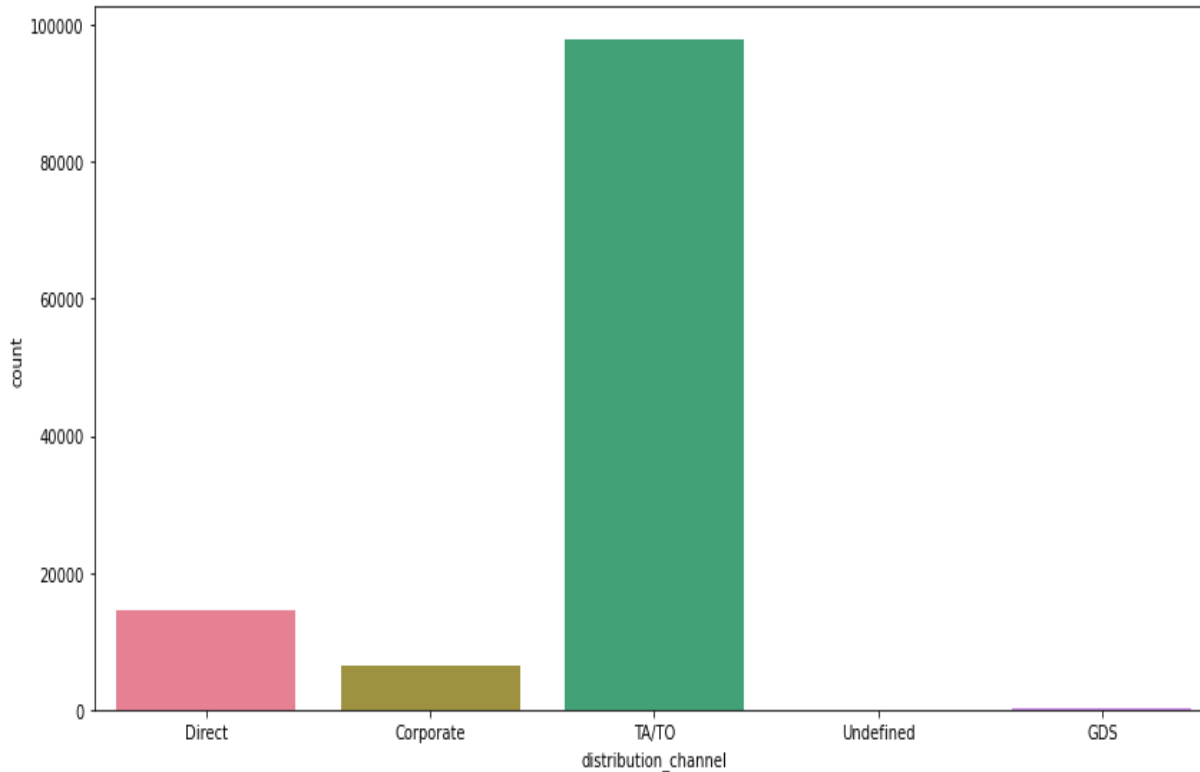
Room type A is famous along people for reservation or booking.

## 7)How many Days people want to stay in Hotel?

*Near about 28% people resided for 2 days in hotel, Followed by 25% people resided only 1 day.*



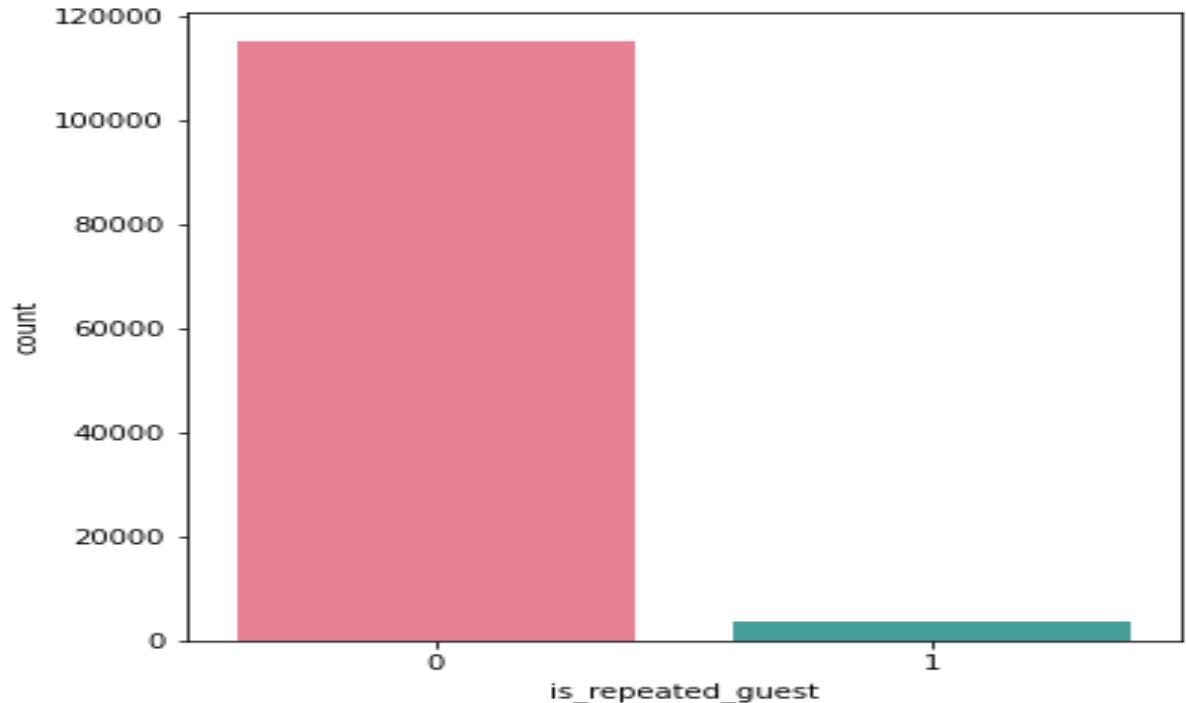
## 8) Which distribution Channel made maximum bookings?



Almost 82% bookings were done with the help of Travel agents or Tour operators followed by 12% direct bookings by customer

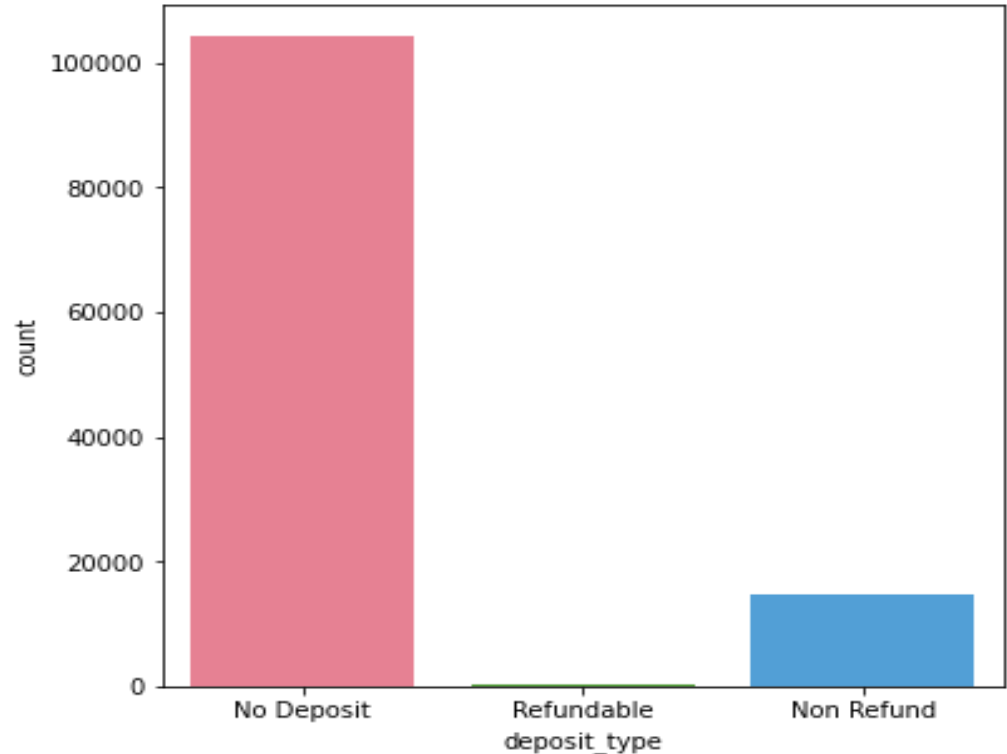
## 9) How many repeated guest are there?

*Only 3% people booked the hotel again in which they were resided last time. and 97% people booked another hotel.*

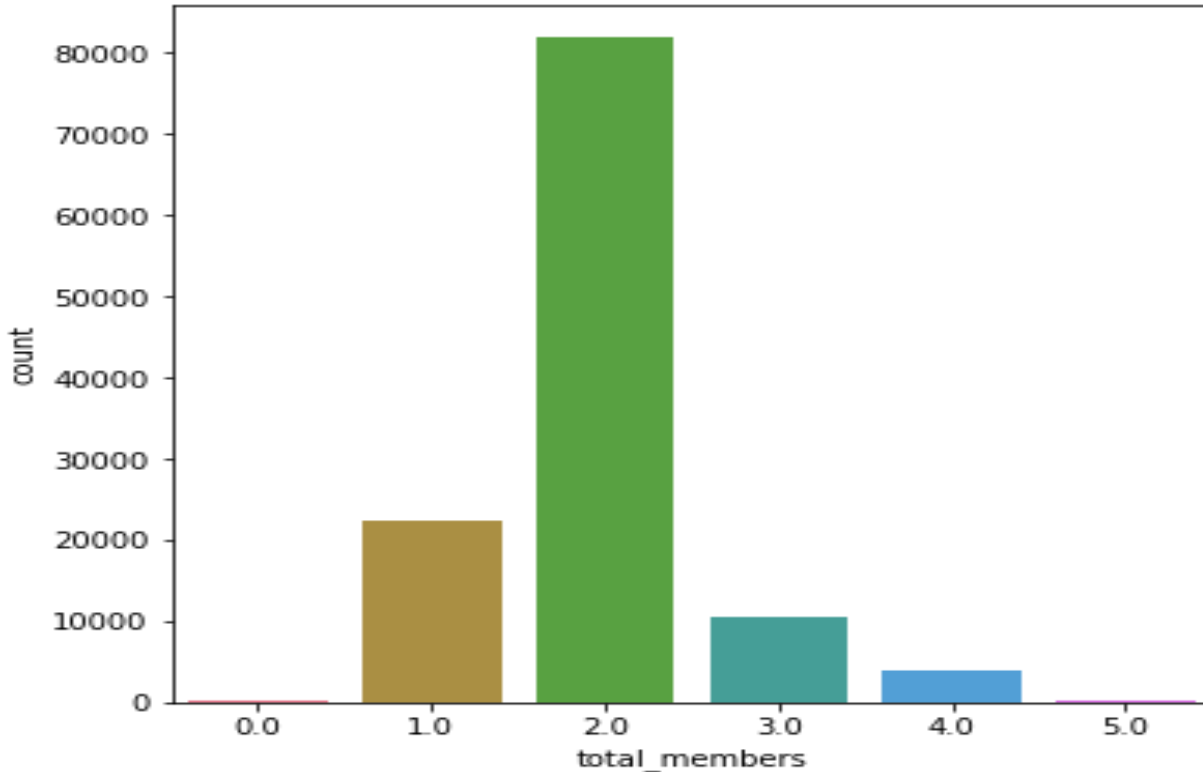


## 10) Deposit type influence in Booking?

87% people choose No Deposit Hotel type, 12% choose Non Refund Deposit Hotel type and 1.3% choose Refund Deposit Hotel type



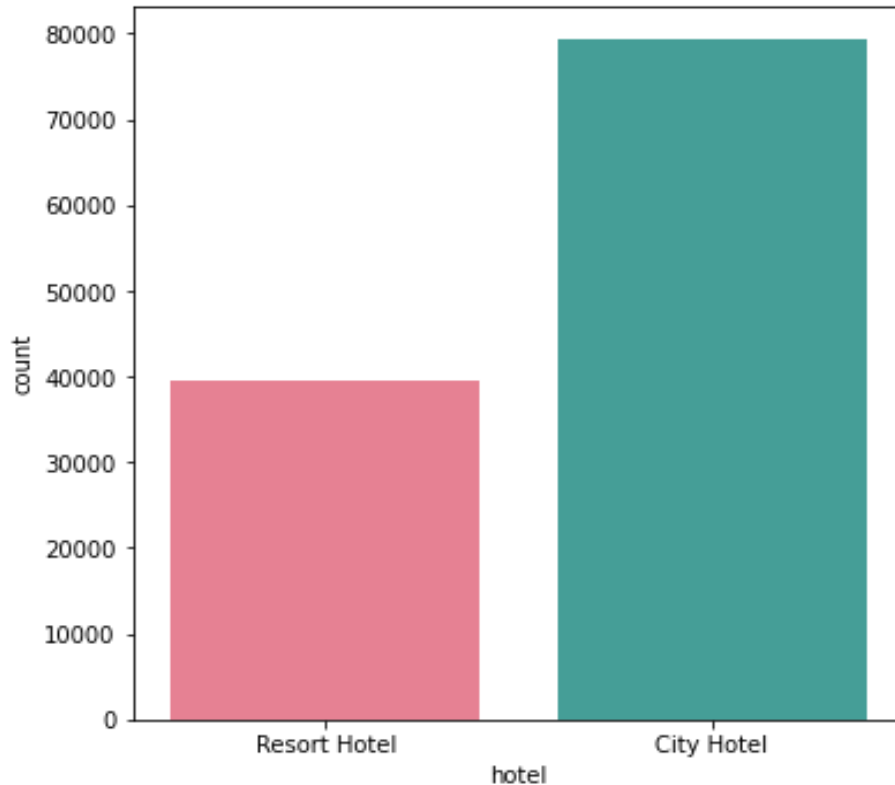
## 11) Number of members and booking Relation?



*Quite interesting numbers, 69% bookings were done for 2 people only means for couple only followed by 19% bookings which are booked for single person*



## 12) Which Hotels are more preferred city or resort?

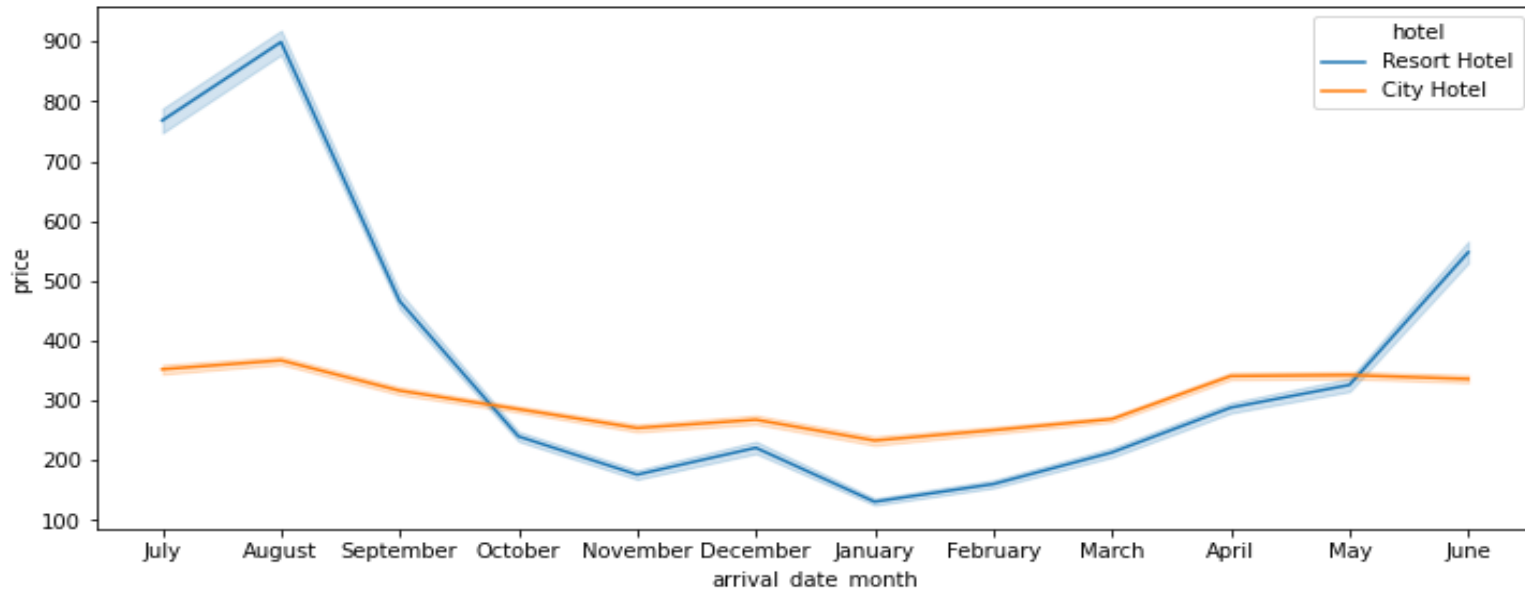


*Almost 67% bookings are done in city hotels and 33% bookings are done in Resort hotels*

# Hypothesis

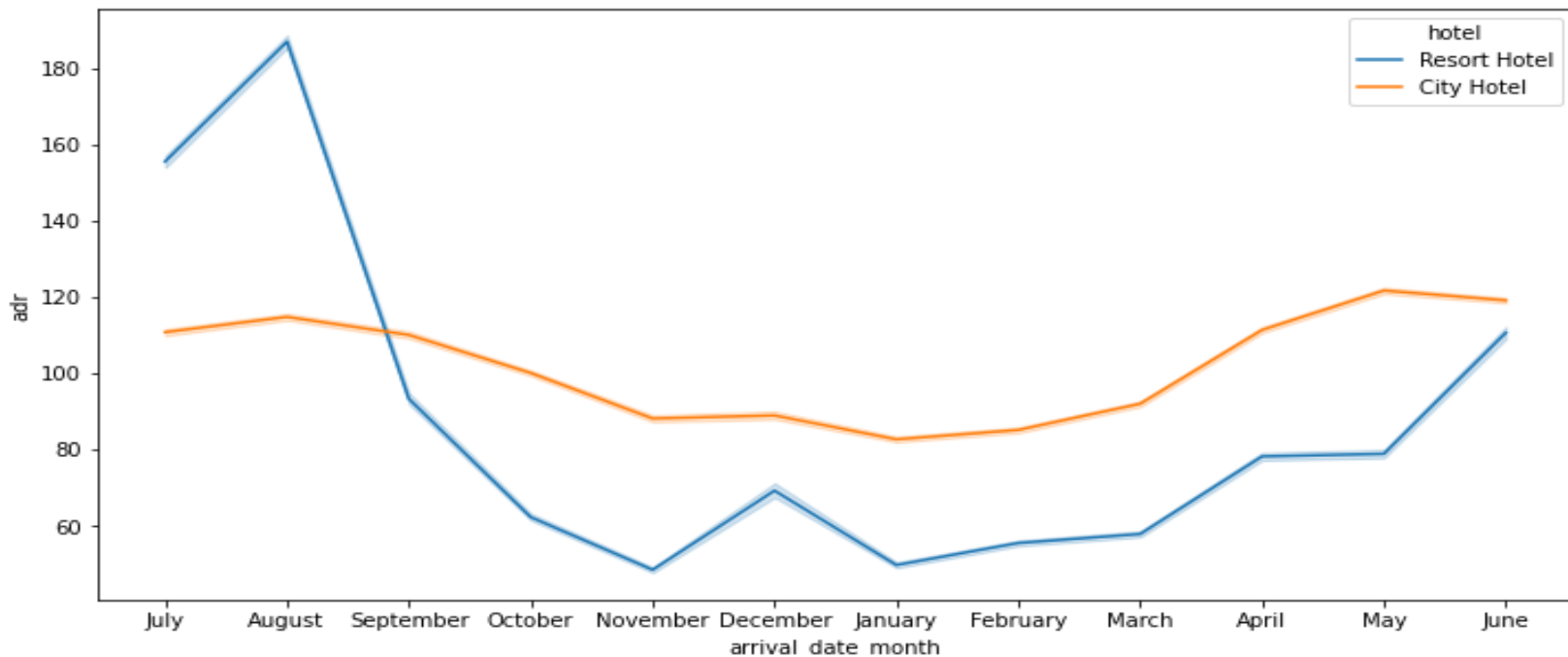
# Relation between Price and month

*We can see the relationship between Arrival date month and price not steady. The prices of resort hotel are too high in the month of July to September and again they are in increasing trend from January month Whereas the prices of City hotels are in range of 300-400 through year.*



# Average Daily Rate

*For resort hotels, the average daily rate is more expensive during August, July and September.  
For city hotels, the average daily rate is more expensive during August, July, June and May.*



# Conclusions

- 1) May – August happens to be the most occupied months.
- 2) The majority of guests come from western Europe countries.
- 3) The majority of reservations are for city hotels.
- 4) The number of repeated guests is too low.
- 5) Most of the customers are couple as 2 members have largest bookings.
- 6) The Rates of city Hotels are less as compared to the Resort Hotels and this the reason why City Hotels have Huge bookings compared to Resort Hotels.
- 7) Most of the bookings or in fact near about 67% bookings are done by travel agents.
- 8) 77% Meals booked are of BB type followed by HB with 12%
- 9) 72% people booked BB type of Meals
- 10) Almost 82% bookings were done with the help of Travel agents or Tour operators

## Recommendations On Behalf of EDA

- 1)Hotels should target the customer during the time of May- August as they are busiest months.*
- 2)The Hotel Industry should work on spending its budget for marketing in Europe because of the customer size from those areas.*
- 3)The budget should also be spend on building advanced infrastructure in city hotels so that it can attract more customers.*
- 4)The number of repeated guest is too low so the services should be given properly and there should be some sort of room for feedback.*
- 5)Most of the customers are couple so Hotel should give them discounted rate on visiting again so that the customers will be more in future. And also Hotel can construct some Special packages for them.*
- 6)The resort Hotels should minimize their Rates so that more customers will choose them.*
- 7)As the majority bookings are done by Travel agents or Tour operator Hotels should give incentives to these Travel agents or Tour operator So that they can again engage with their hotels.*
- 8)The Quality of BB Meal type should be great as lot of customer books those and there satisfaction will lead to repeated guest.*
- 9)Hotels Can establish their existence on websites and take bookings directly from customers and also give some discount for first time visitors.*

**Thankyou**