Capstone Project

HOTEL BOOKING

SELF PROJECT

BY

IRSHAD

HOTEL BOOKING ANALYSIS

1.Defining problem statement
2.EDA and feature engineering
3.Feature selection
4.Prepration data for good understanding

Data pipeline

Data Processing 1: In this first part we have to remove unnecessary features. Since there were nearly many columns which have null values.

Data Processing 2: In this part we manually go through each features selected from the data and encoded the categorical features change the date time columns in the month , year and days.

EDA-: In this part we have to do some EDA on the features selection part to show the trend of the data and understand the data with some graphical representation.

Now finally on the basis of EDA on feature selection we reaches the point on conclusion on the data

DATA SUMMARY

- **Hotel booking: This data set contains booking information for a city and a resort and includes information such as when the booking was made , length of stay , the number of adults , children , and/babies , and the number of available parking spaces , among other things . All personally identifying information has from the data**

- **GOAL: The goa of this dataset is to practice EDA and figure out the standard patterns of booking**

Define Dependent Variable

Arrival _date _ year: Year of arrival date

arrival _date _month : Month of arrival date

stays _in _weekend _ nights: Number of weekend nights the guest stayed or booked to stay at the hotel

adults: Number of adults

meal: Type of meal booked .Categories are presented in standard hospitality meal packages

country: Country of origin categories are representation in the ISO format

market _segment: Market segment designation . In categories the term TA means ‘travel Agents’ and TO means Tour Operators

Previous_ cancellation: Number of previous booking name was cancelled by the customer prior to the current booking

Is_ repeated_ guest: Value indicating if the booking name was from a repeated guest or not

Booking _changes: Number of changes made to the booking from the moment the booking was entered on the moment of check in or cancellation

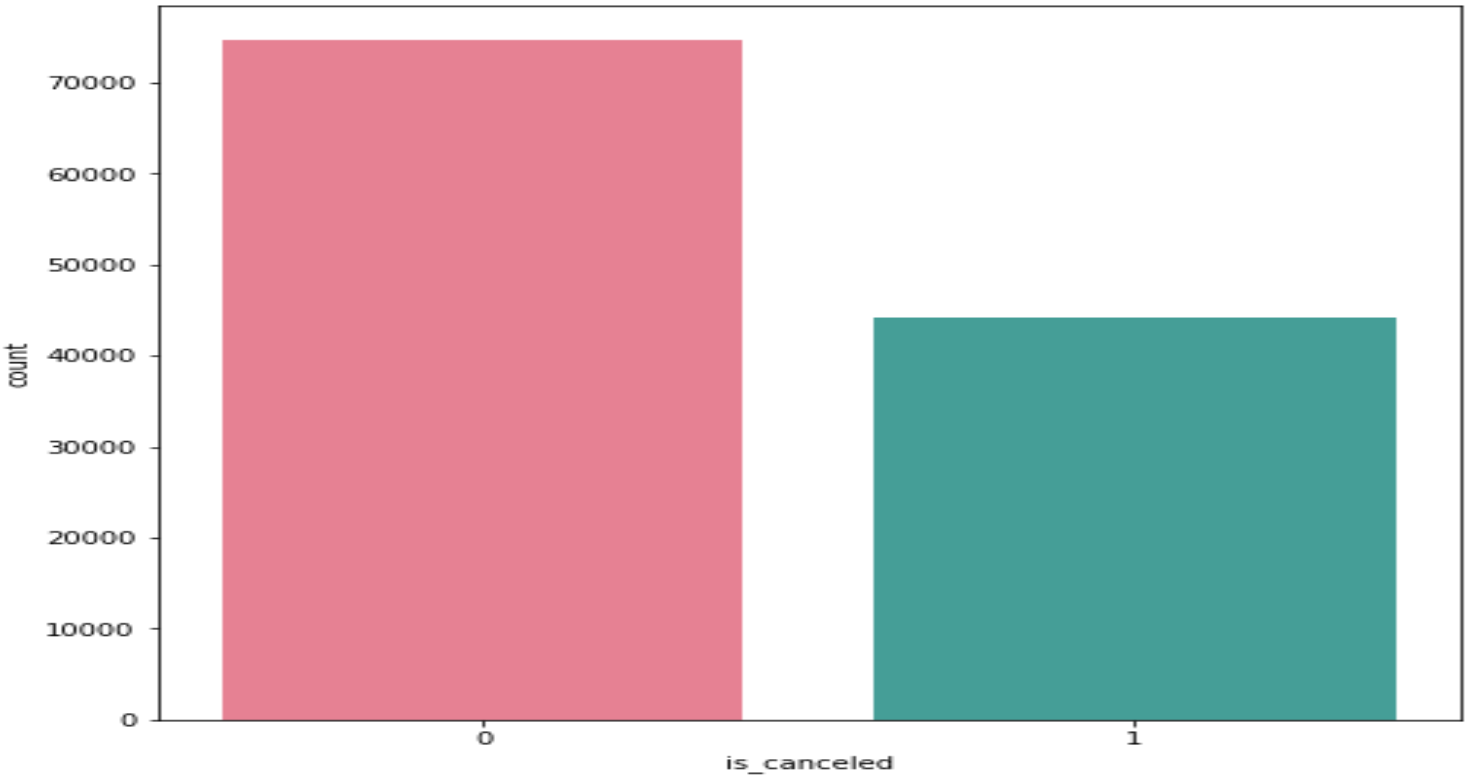
Deposit_ type: Indicate on if the customer made a deposit to guarantee the booking This varibke can assume three categories

No_ deposit: no deposit was made

Non refund : a deposit was made in the value of the total stay cost

Refundable: a deposit was made with a value under the total cost of stay

EDA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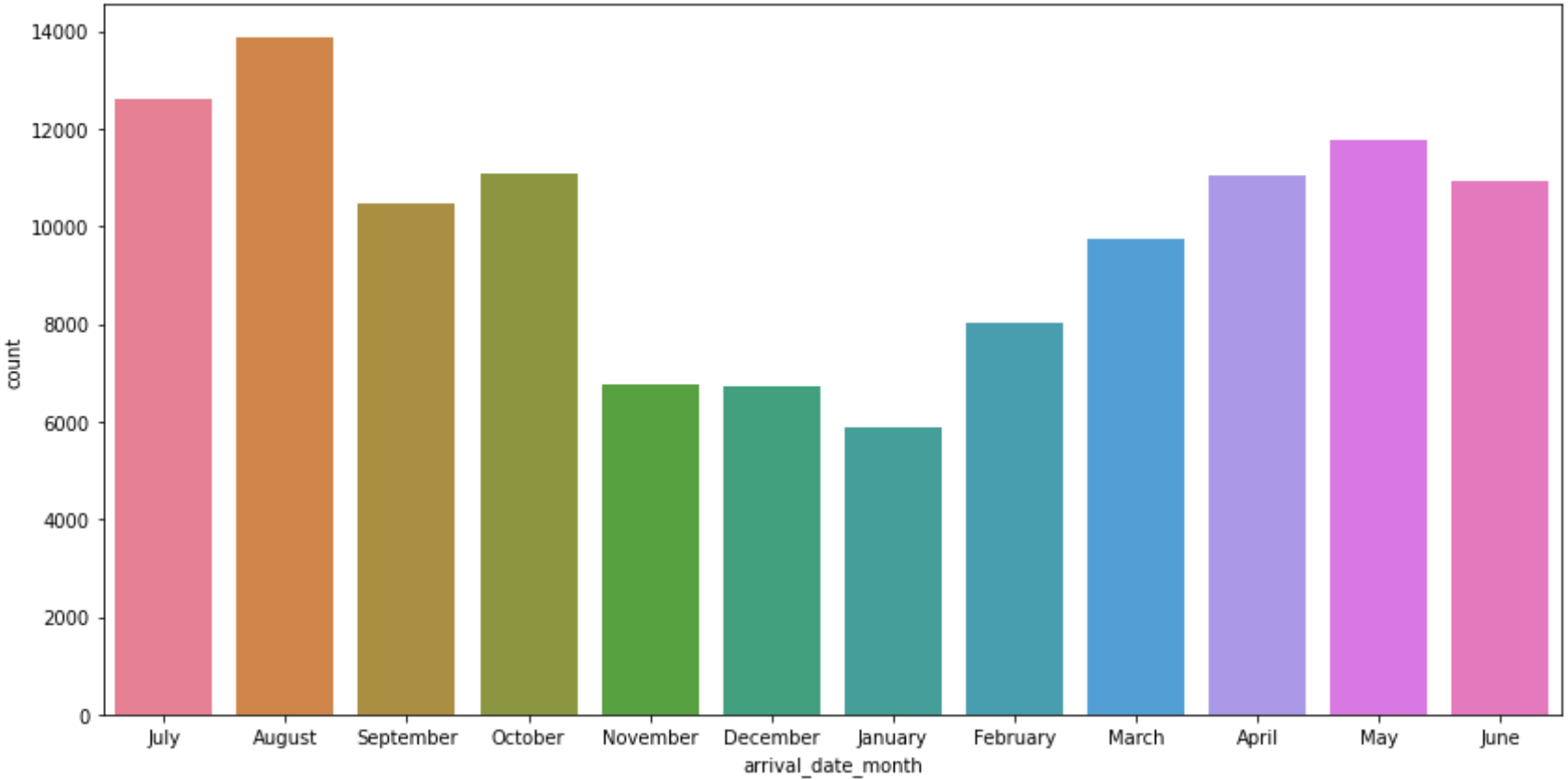
is_canceled

EDA (continued)



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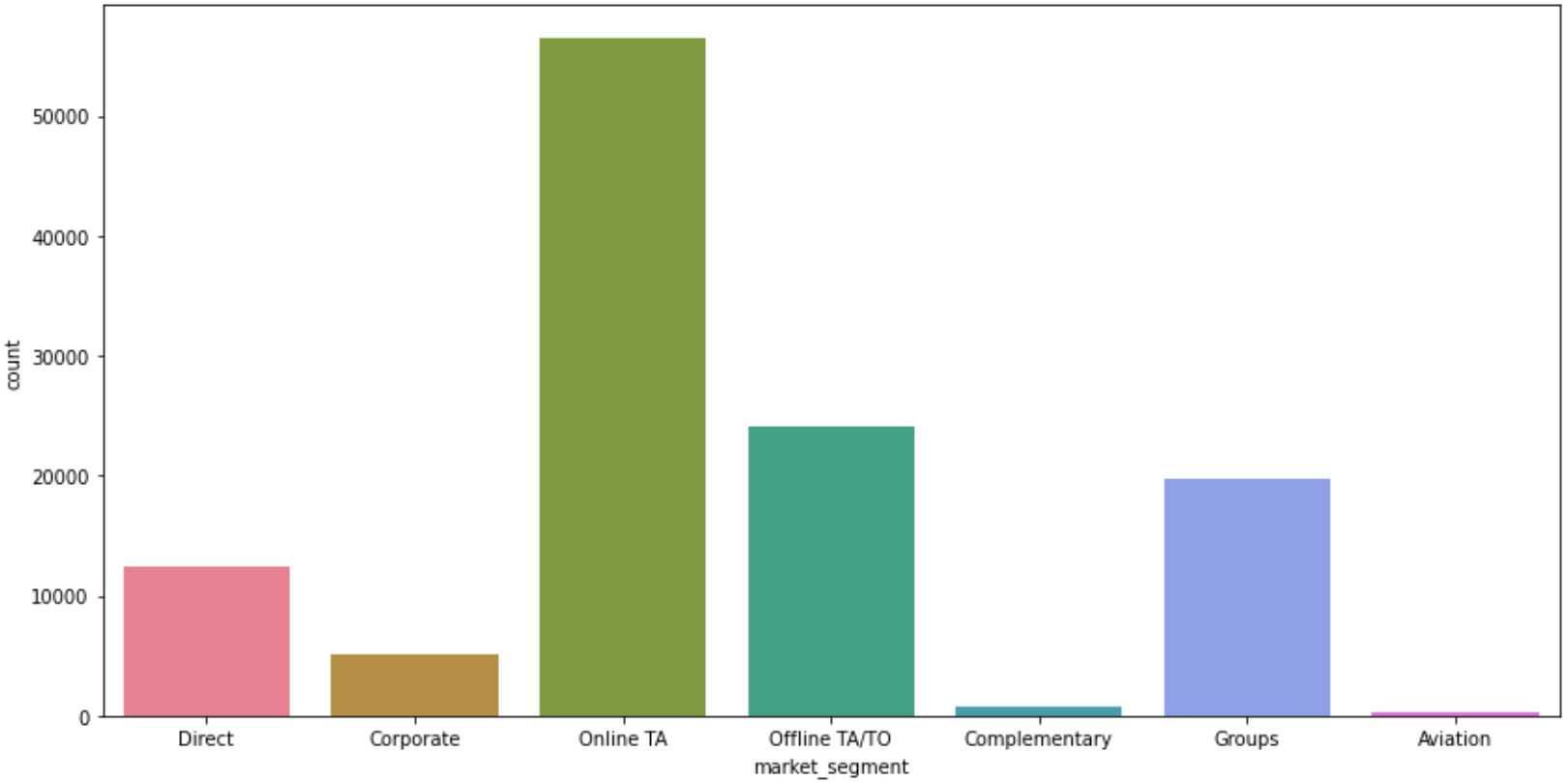

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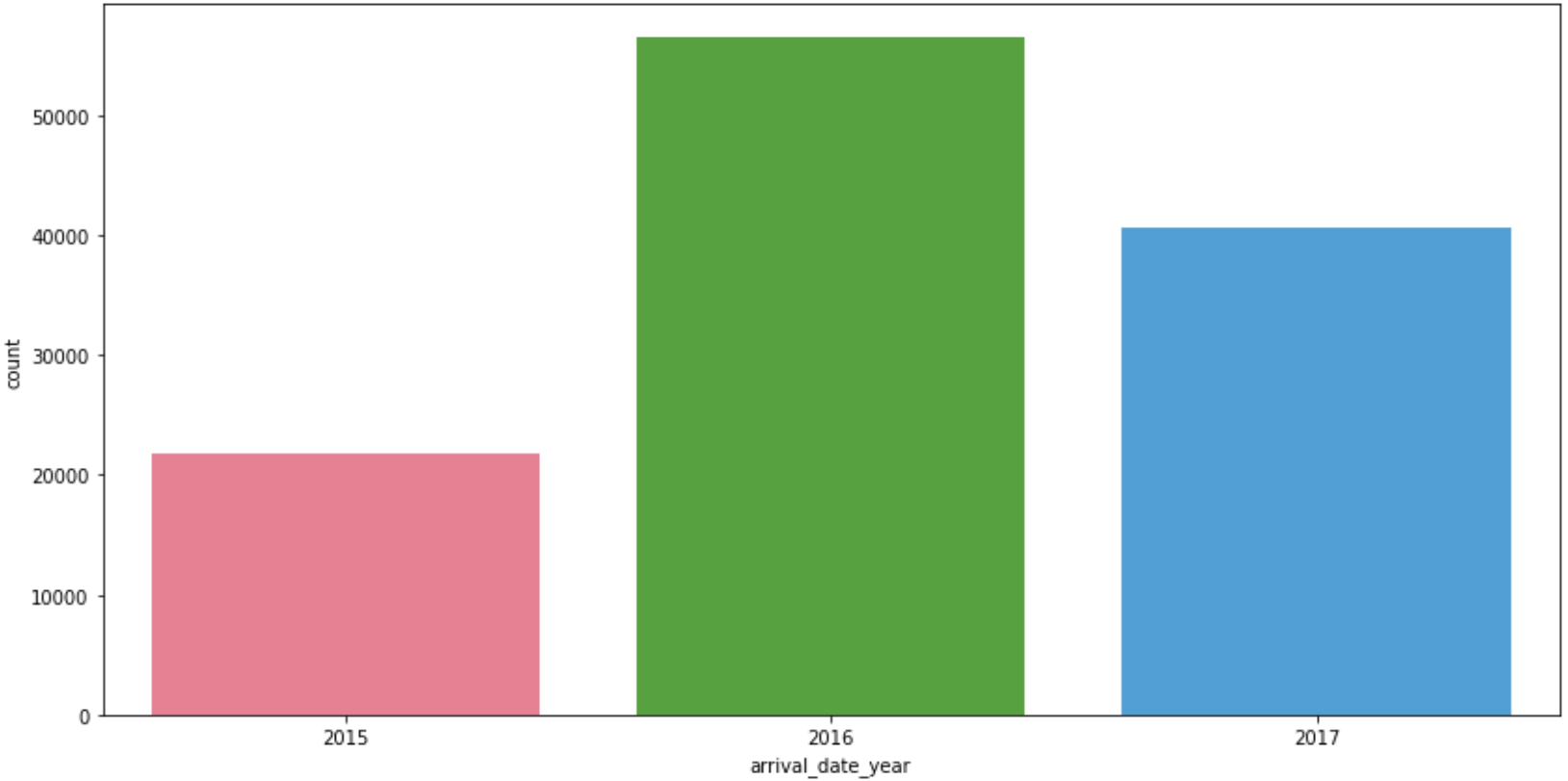

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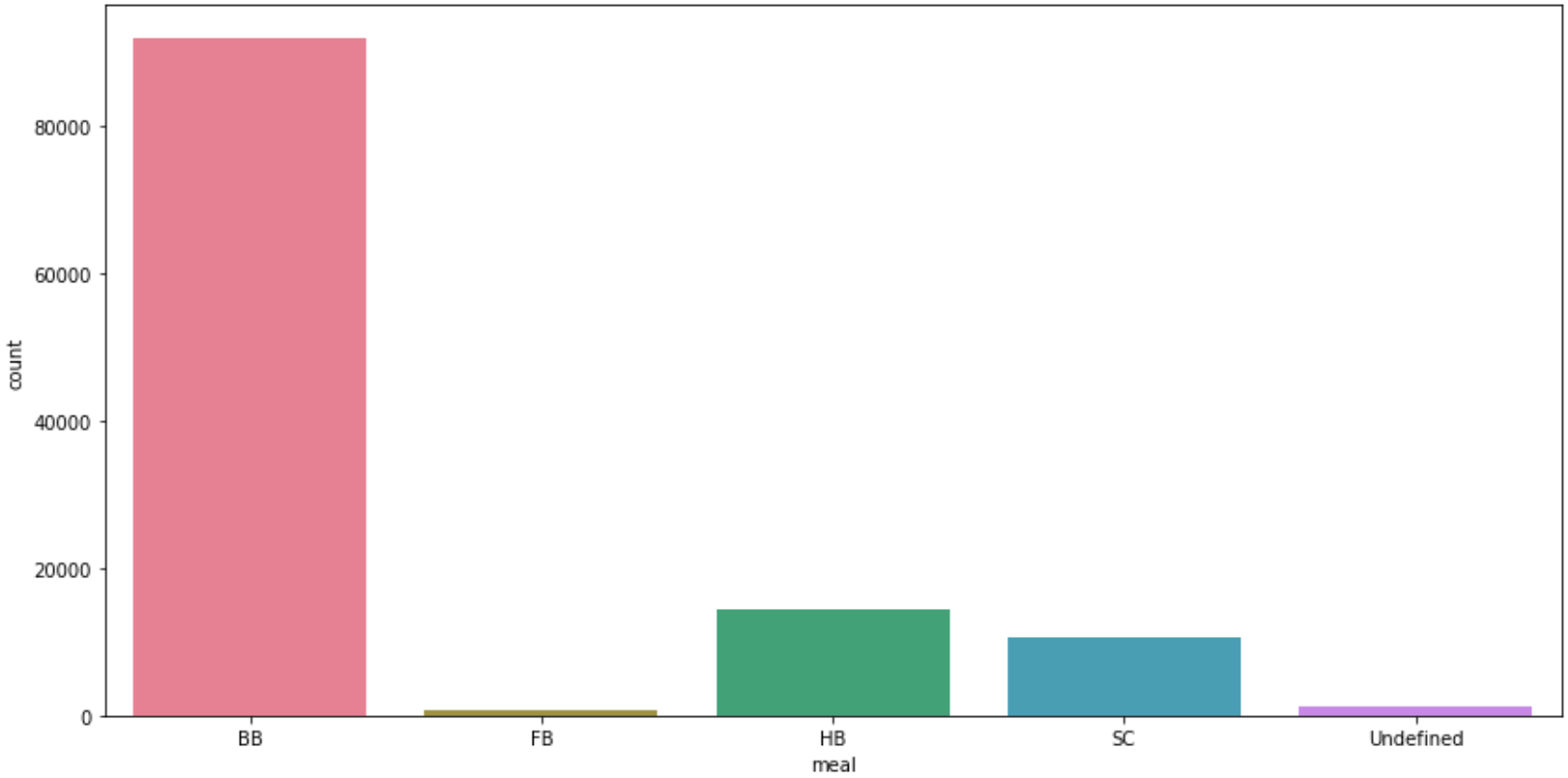

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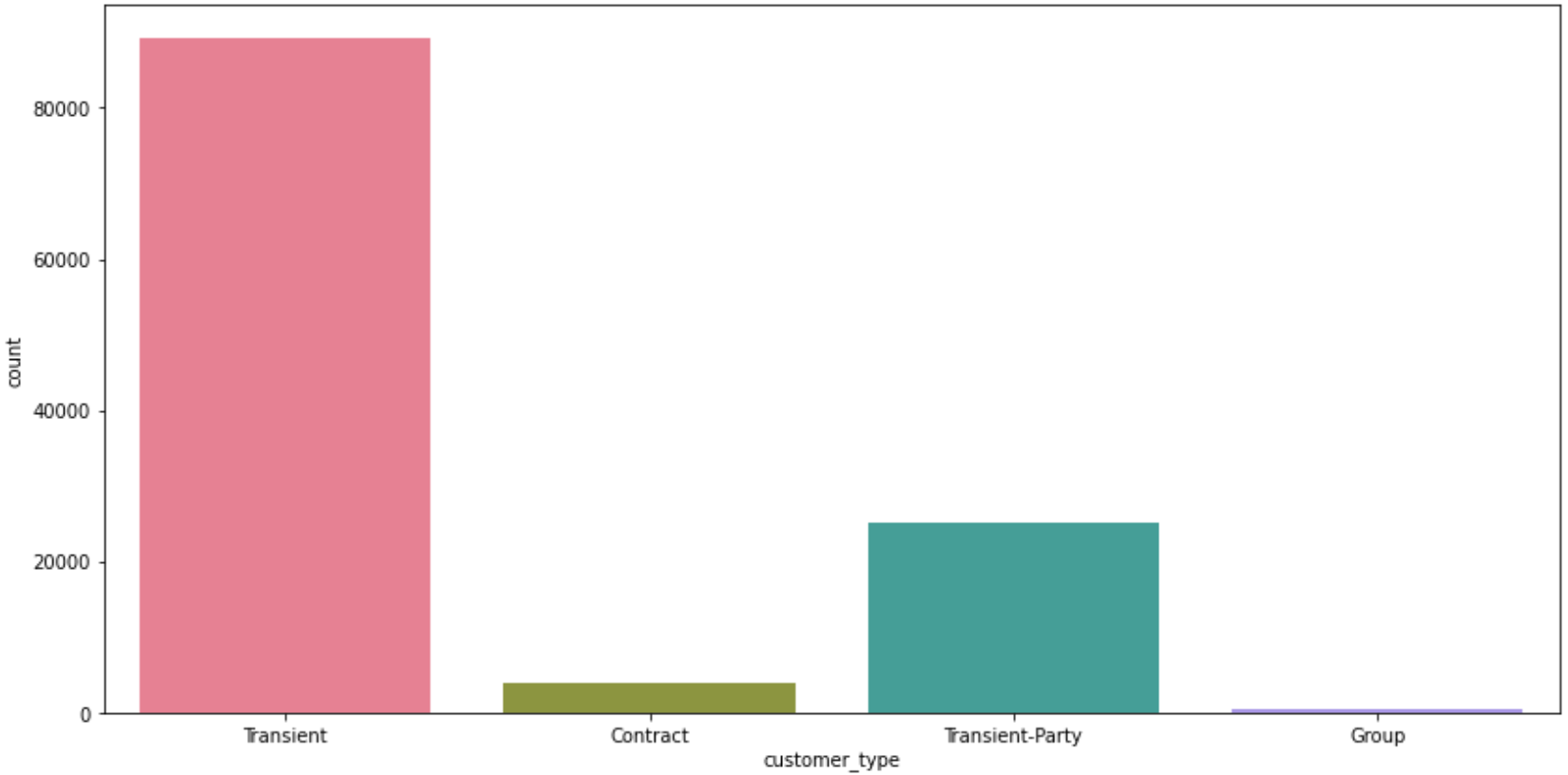

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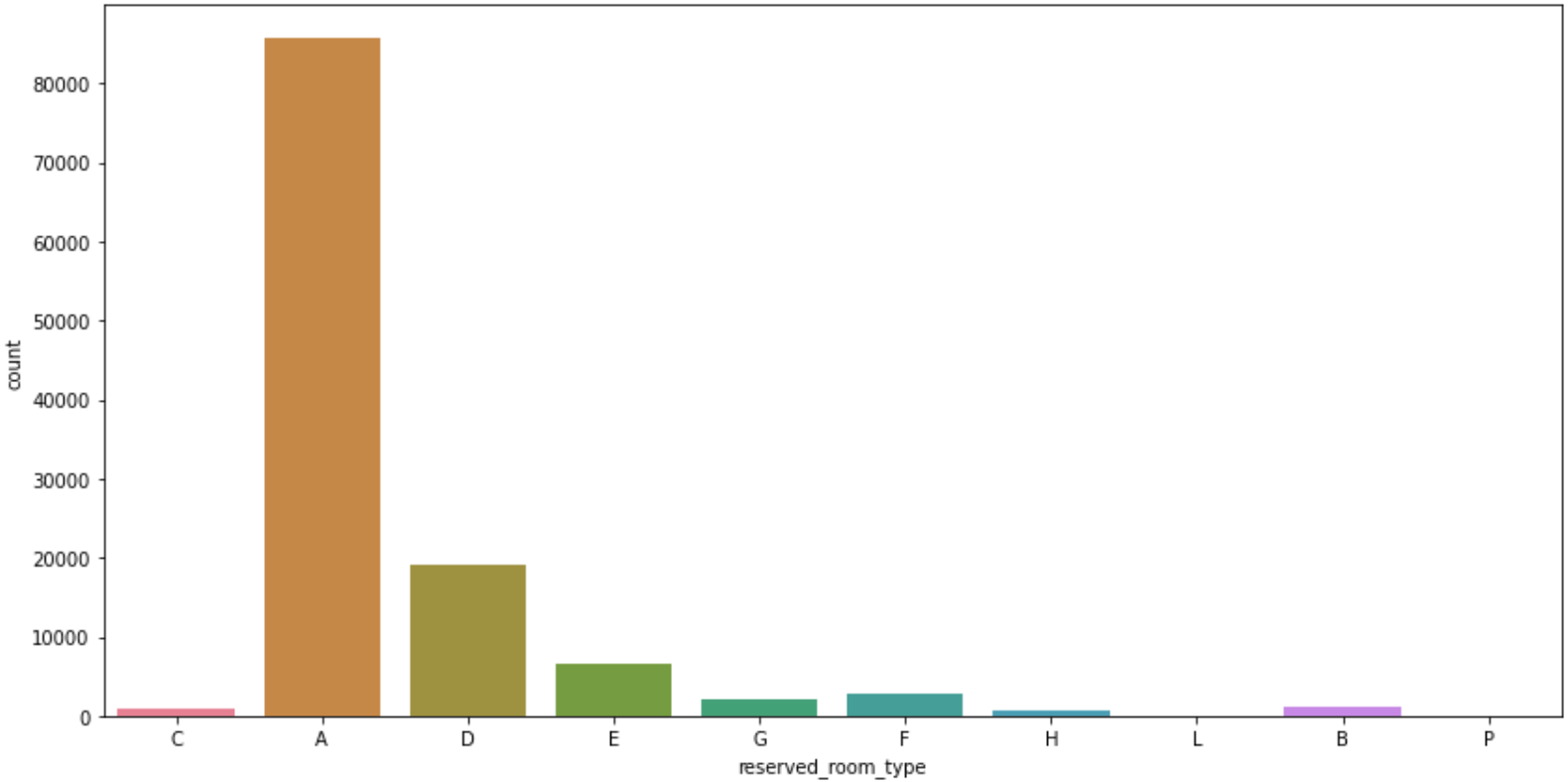

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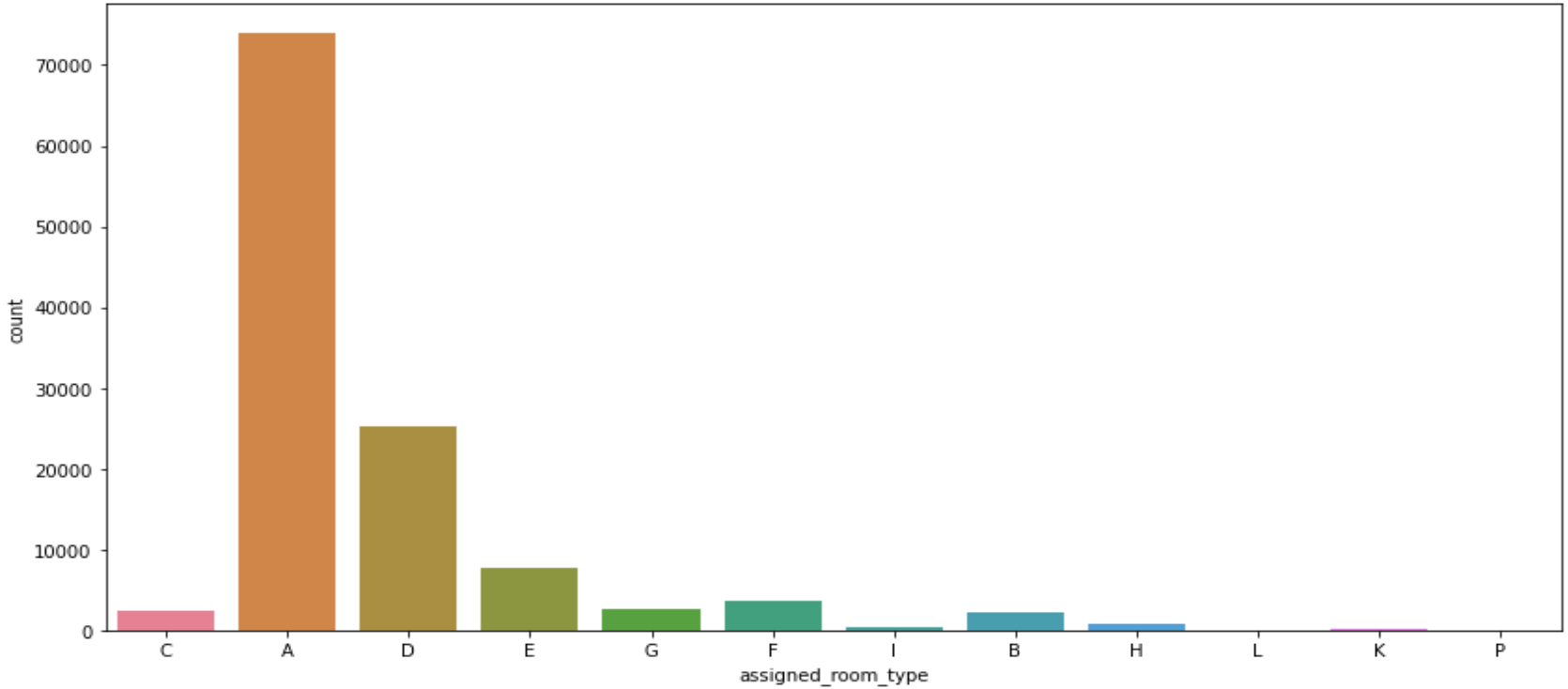

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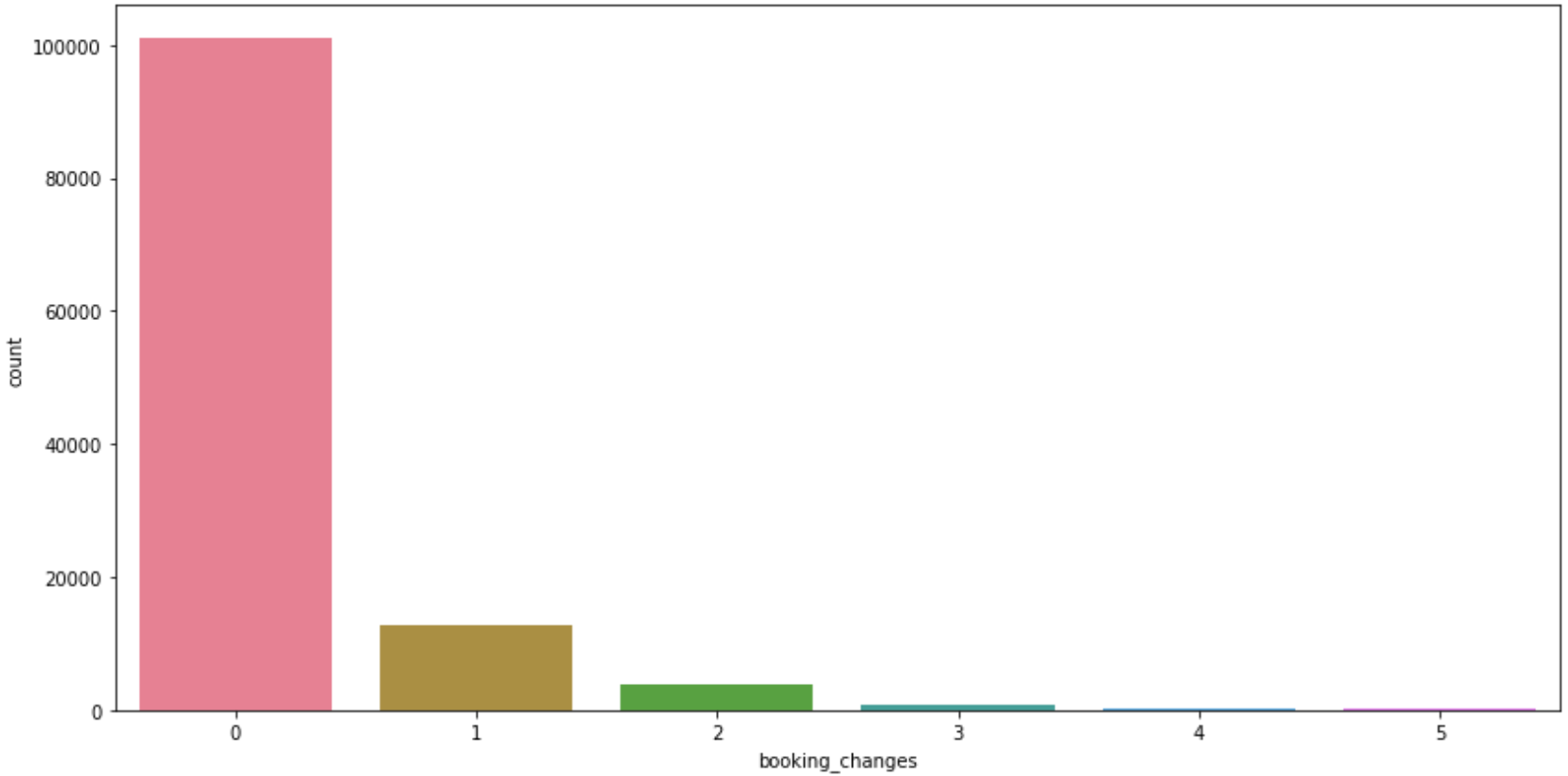

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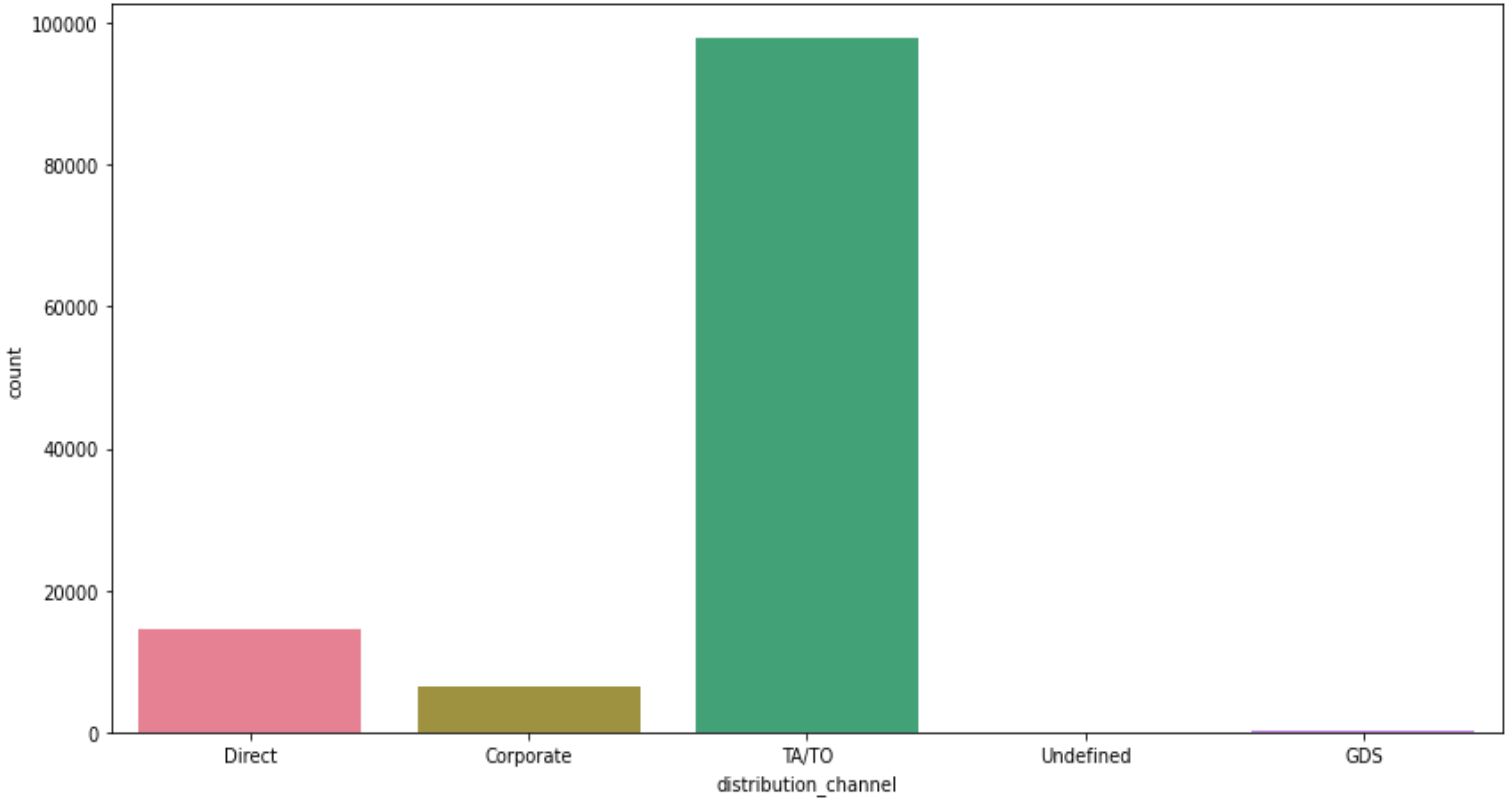

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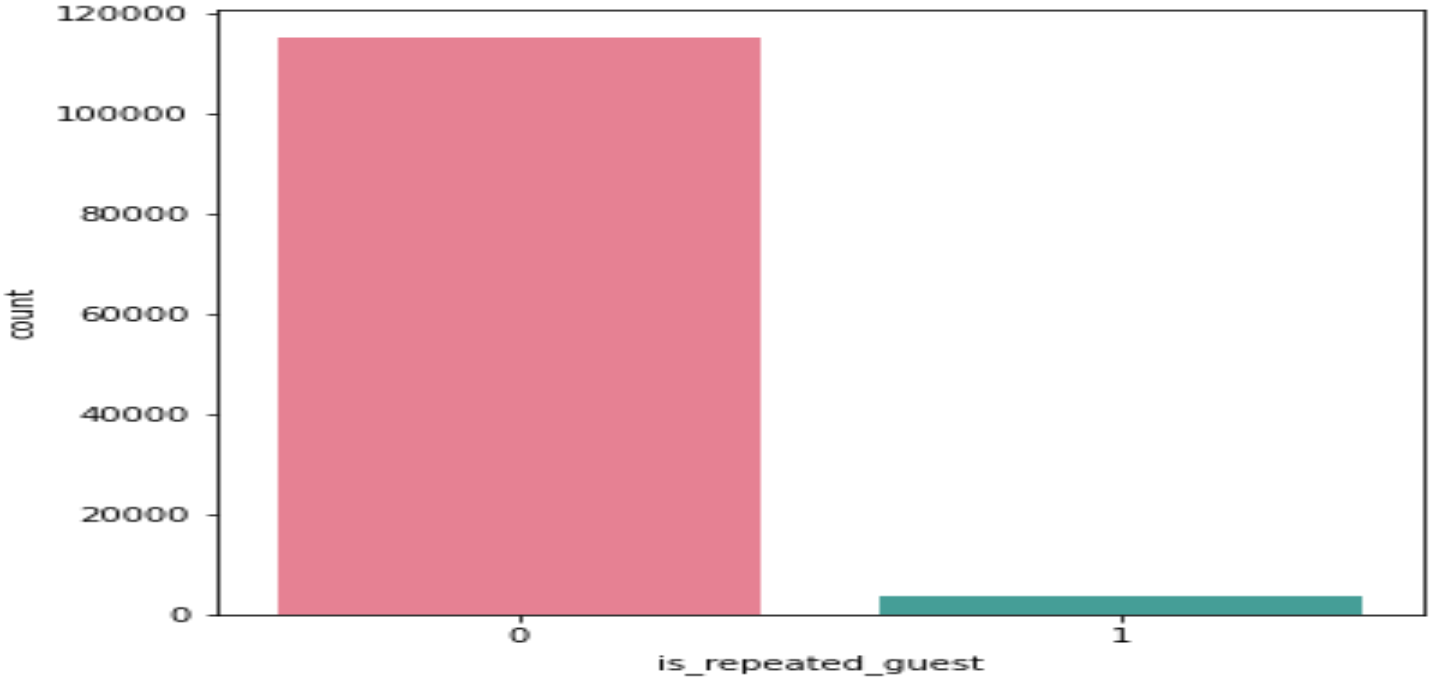

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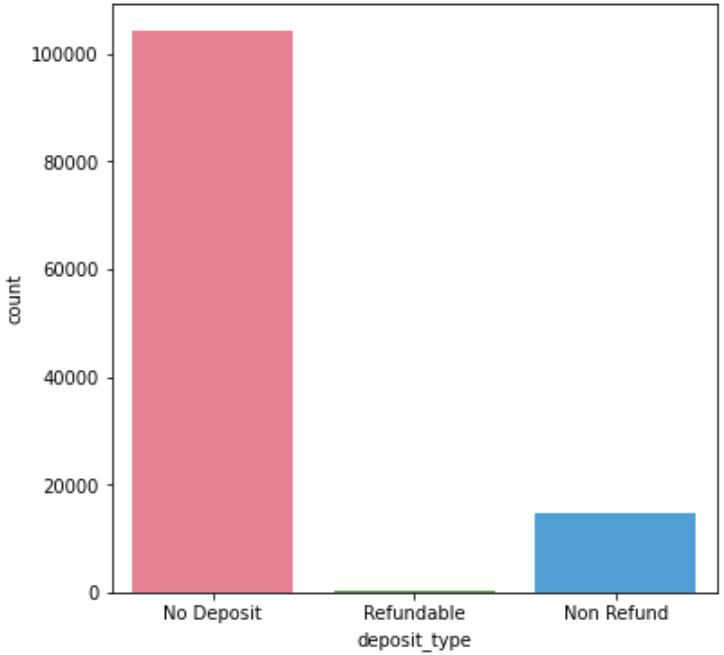

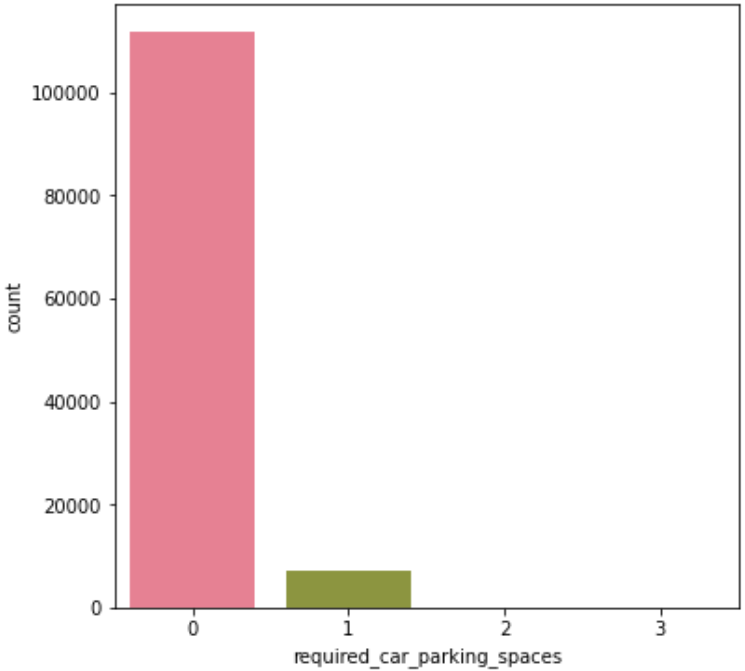

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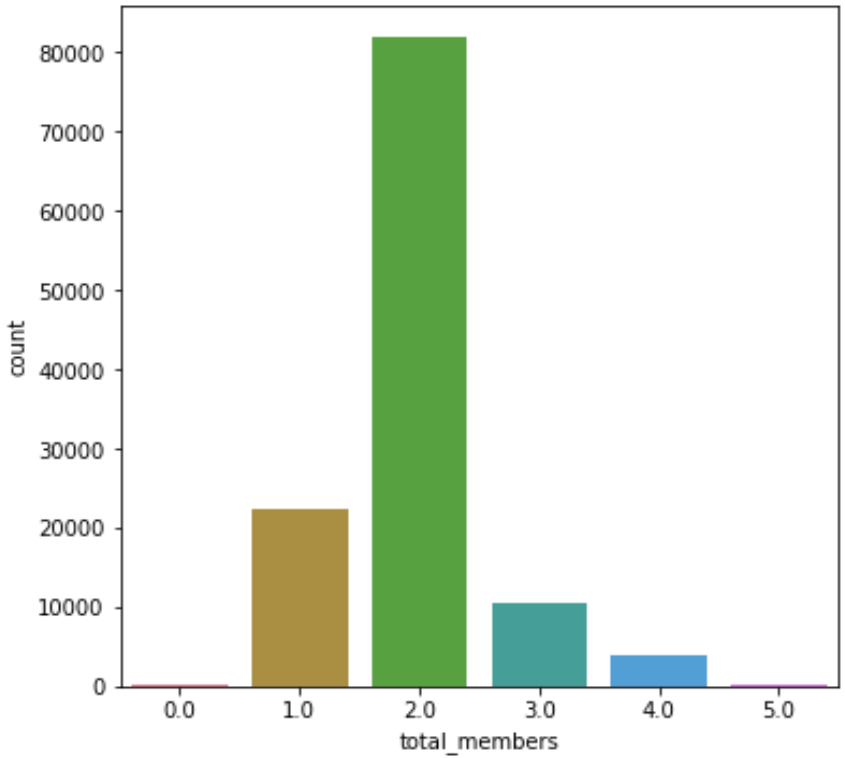

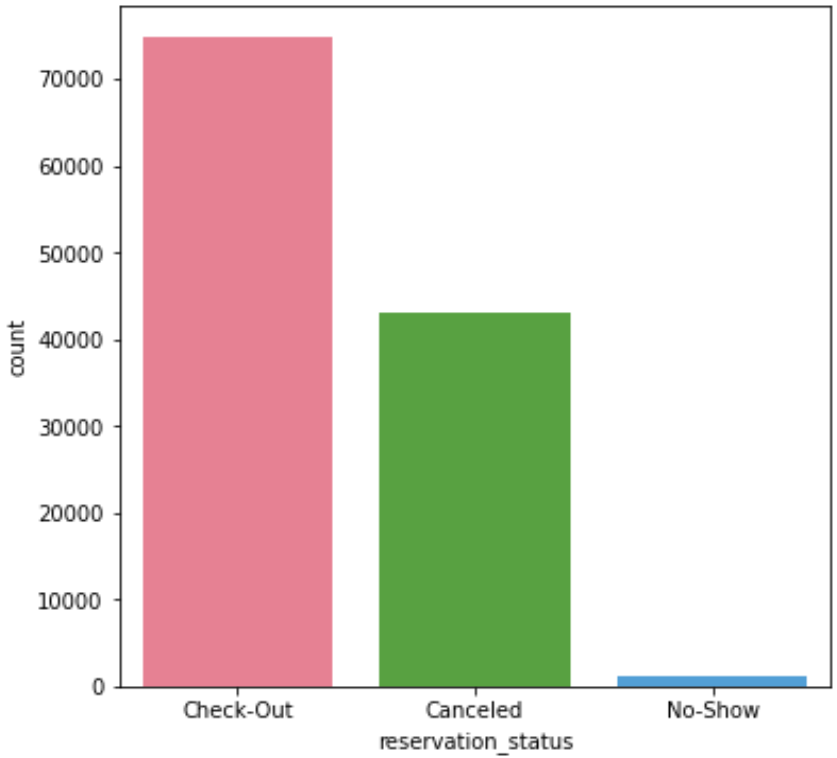

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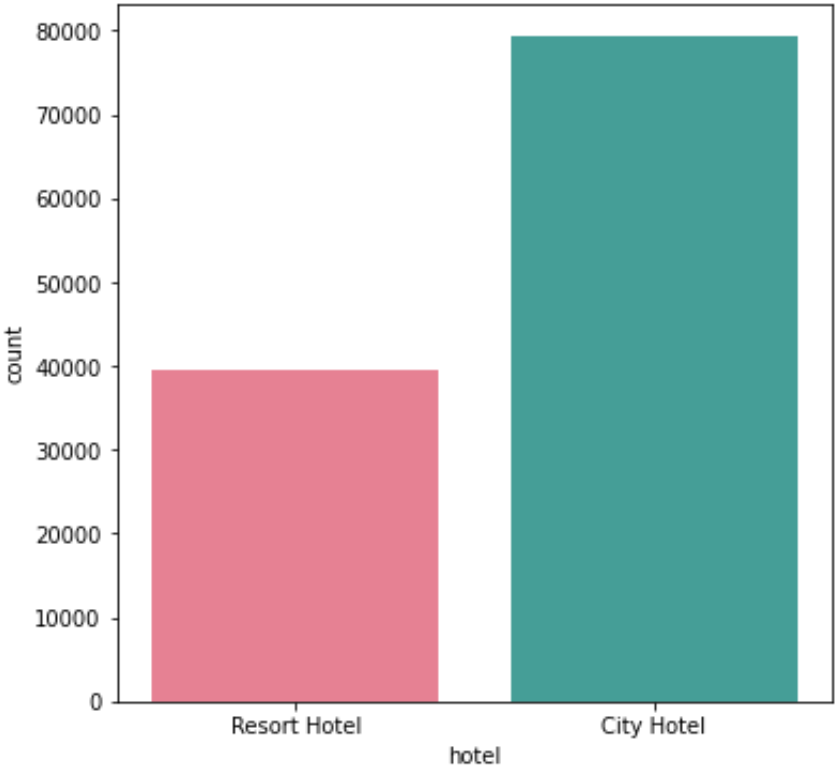

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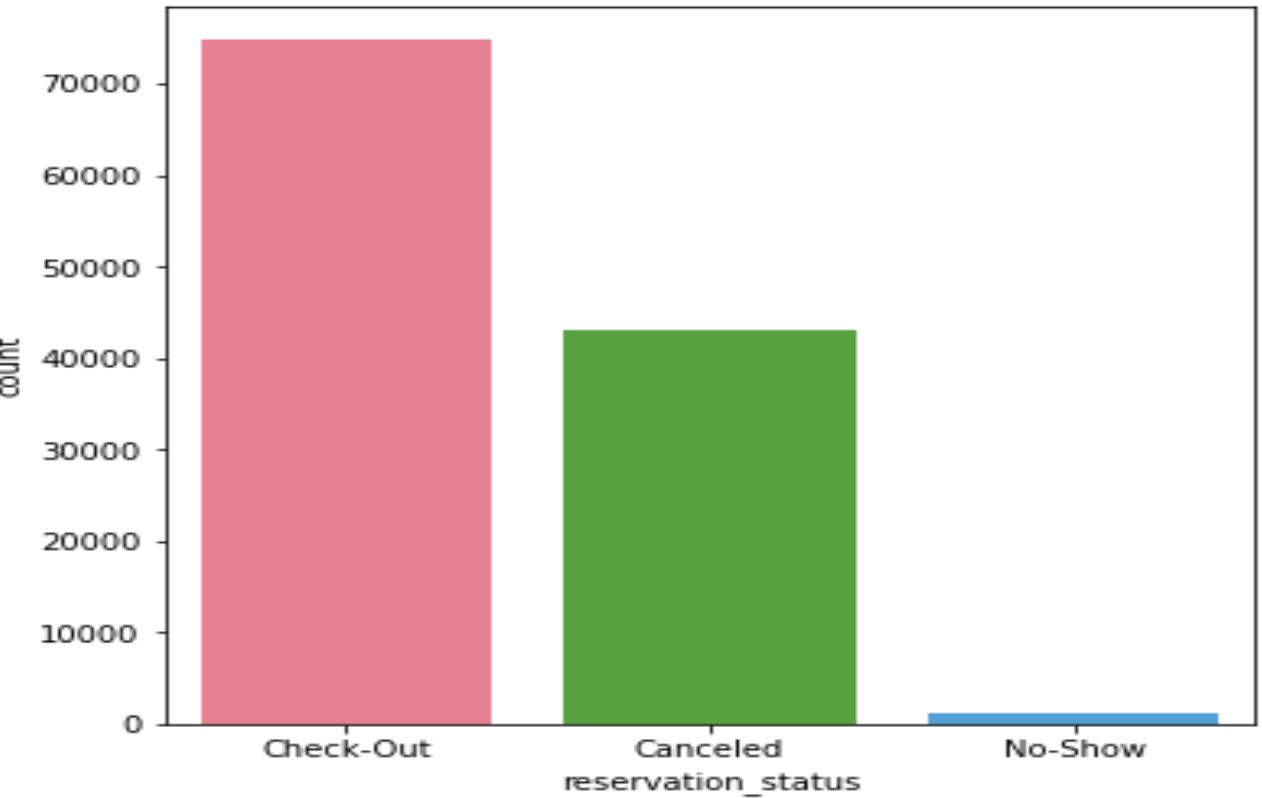

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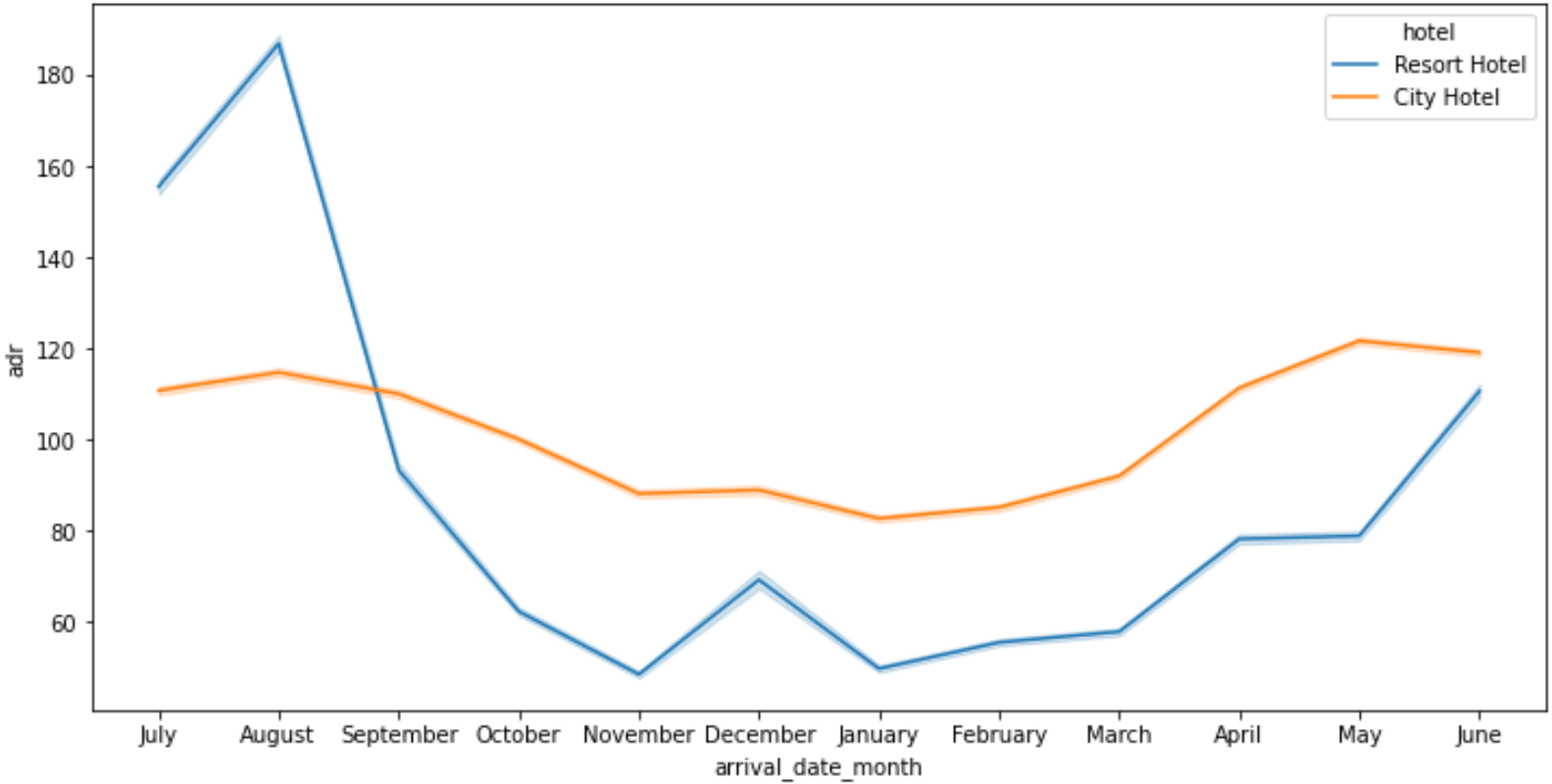

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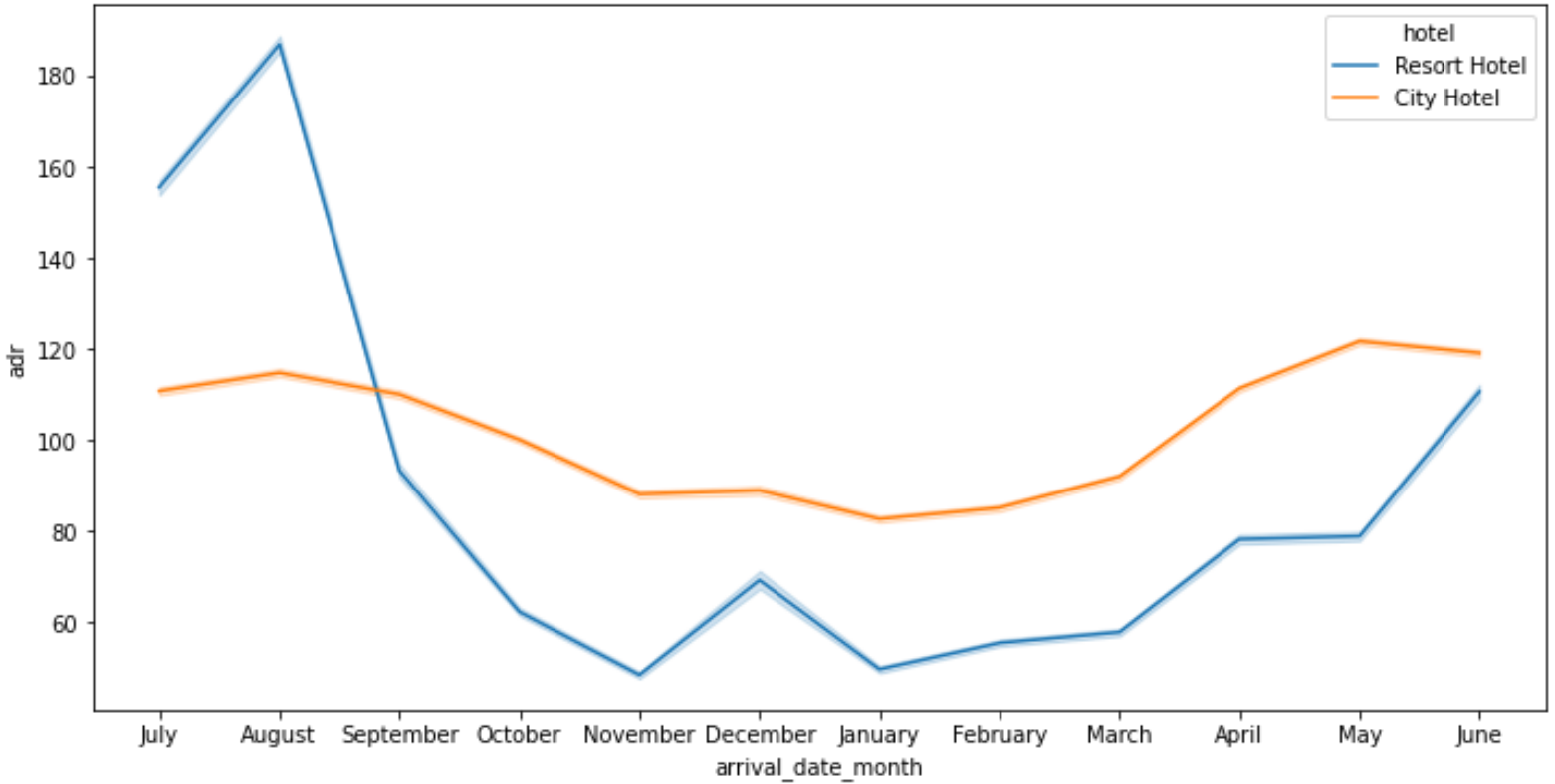

Conclusion

1.Almost 35% of bookings were canceled.

2.More than 60% of the population booked the City hotel.

3.More than double bookings were made in 2016, compared to the previous year. But the bookings decreased by almost 15% next year.

4.Most bookings were made from July to August. And the least bookings were made at the start and end of the year.

5.Portugal, the UK, and France, Spain and Germany are the top countries from most guests come, more than 80% come from these 5 countries.

6.Most people stay for one, two, or three.
-> For Resort hotel, the most popular stay duration is three, two, one, and four days respectively.
-> For City hotel, most popular stay duration is one, two, seven(week), and three respectively

7.Couple (or 2 adults) is the most popular accommodation type. So hotels can make arrangement plans accordingly