



HOTEL CANCELLATION ANALYSIS

BY ERLANDO REGITA



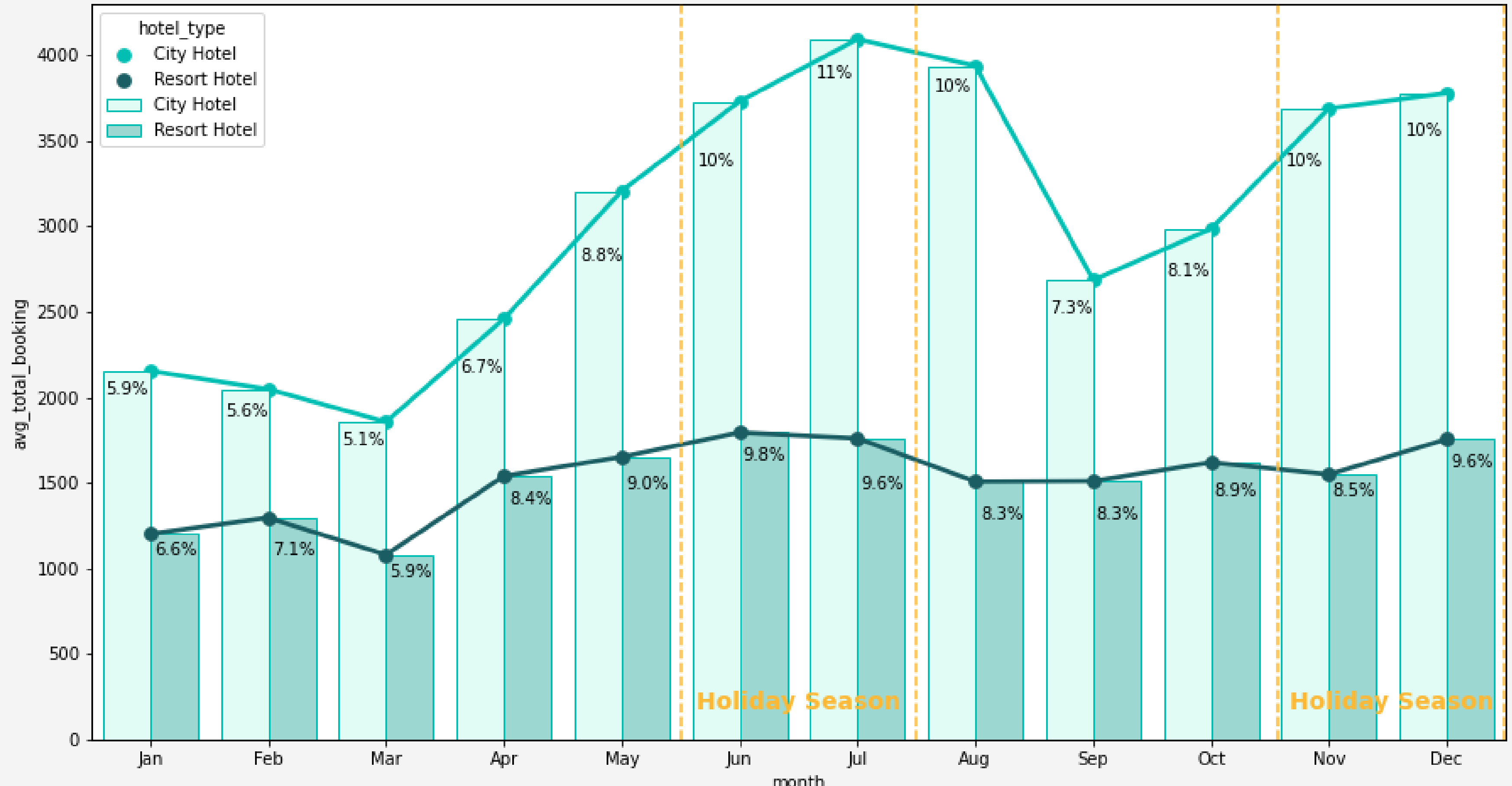
A vertical image on the left side of the slide showing a modern interior. It features a large window with a white frame, through which a view of a city and hills is visible. The wall is a light-colored, textured concrete, and the floor is a light-colored tile. A shadow of the window frame is cast onto the wall.

DATA PREPROCESSING

- This dataset contains of 119,390 rows and 29 features
- It consist of 20 numeric features and 9 categorical features
- This contains missing values in 4 features: children, city, agent, and company
- we will impute 0 for children, company, agent and for city
we will impute 'unknown' value
- Replace 'Undefined' from meal feature with 'No Meal' as they both have the same meaning.
- Drop the rows that contains data with 0 total_guests and 0 total_stays

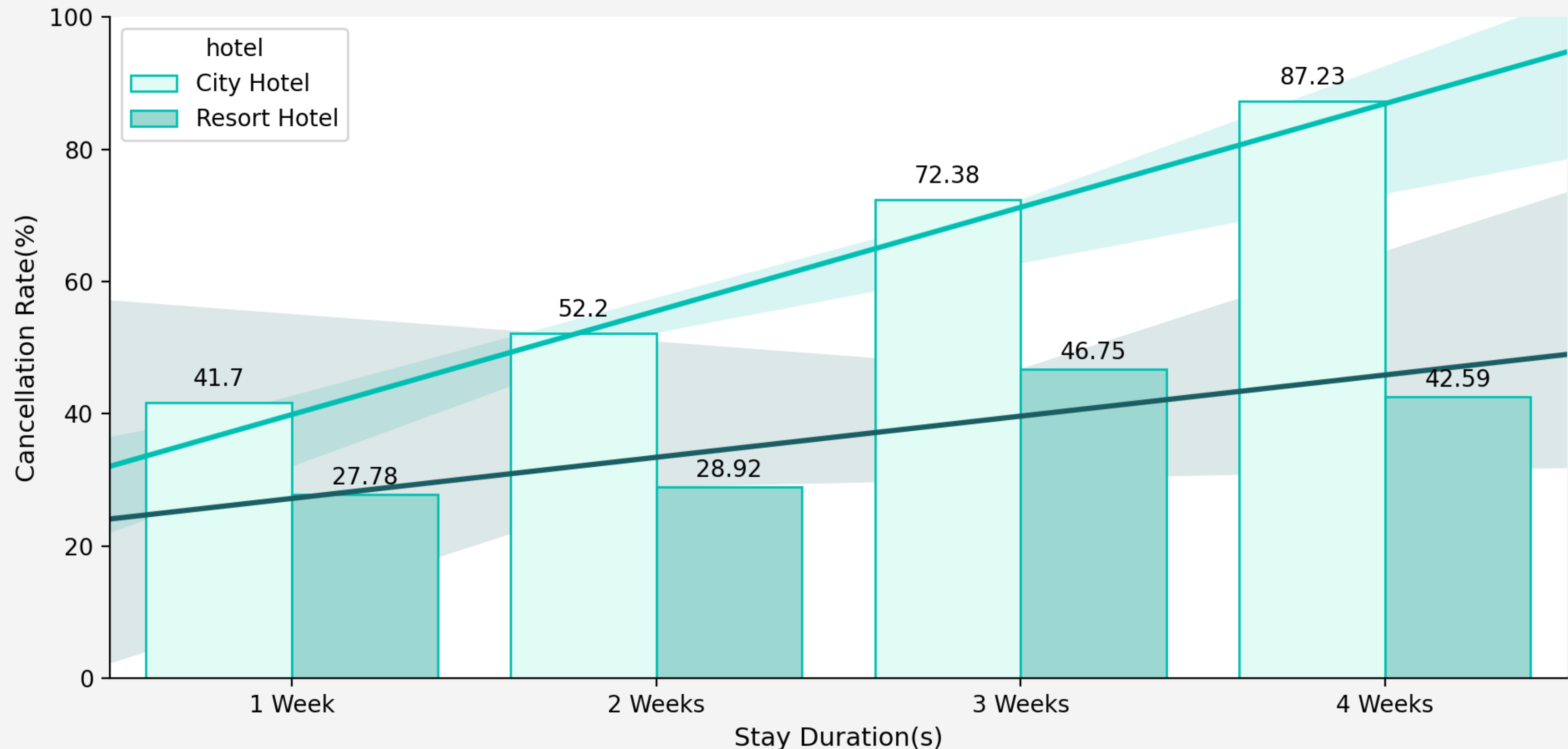
Average Number of Hotel Bookings per Month Based on Hotel Types

June and July are peak season for hotel bookings. City hotel reached highest average number of hotel bookings on July and resort hotel on June. There're another growth on average number of hotel bookings in December for city hotel (10.32%) and resort hotel (9.61%). It could be cause by christmas and new year's eve holiday.



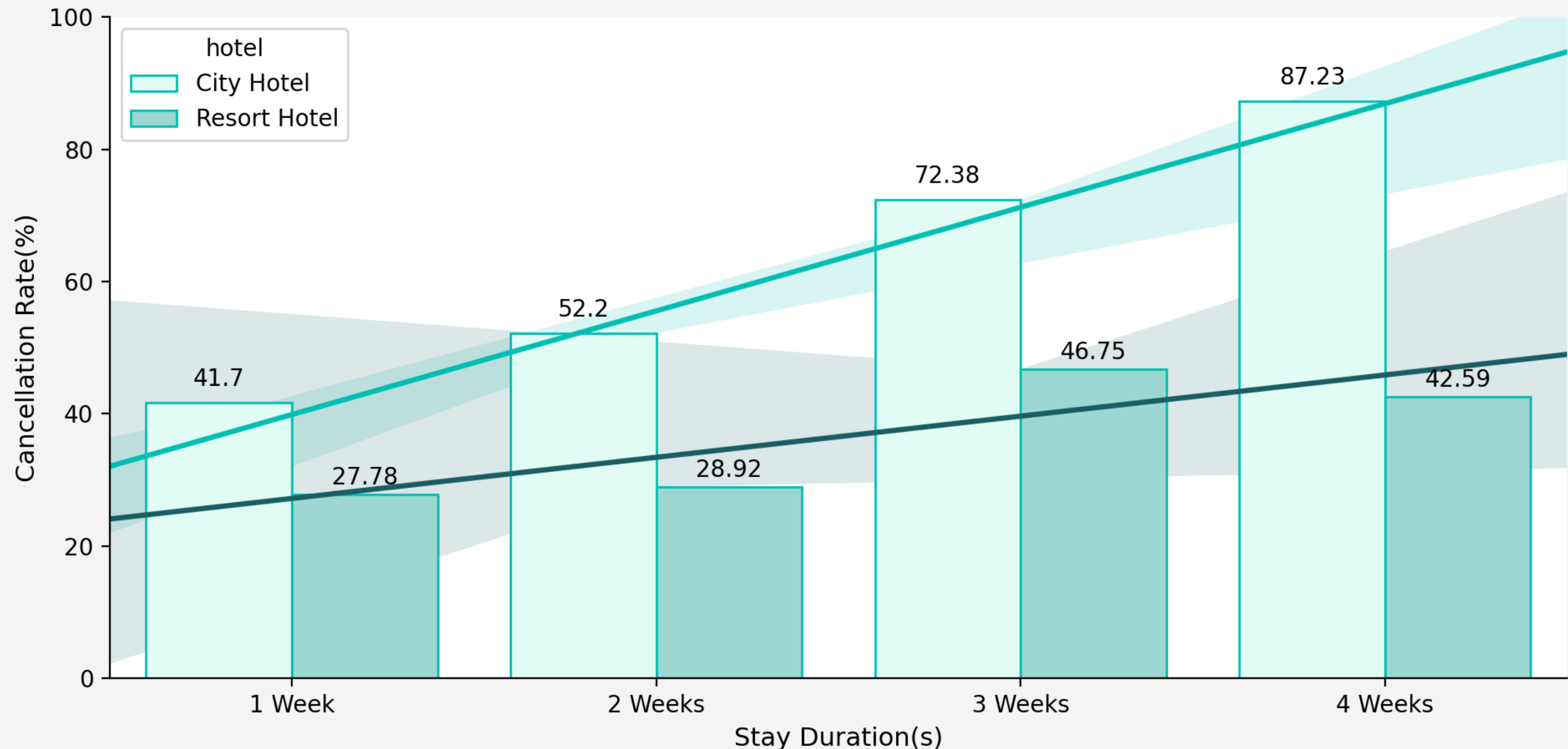
Positive Trend on Cancellation Rate of Hotel Bookings per Stay Duration Based on Hotel Types

The longer customer stayed, the higher the percentage of booking being canceled
The most canceled hotel bookings on city hotel was on four weeks stay duration (87.23%).
The most canceled hotel bookings on resort hotel was on three weeks stay duration (46.75%)



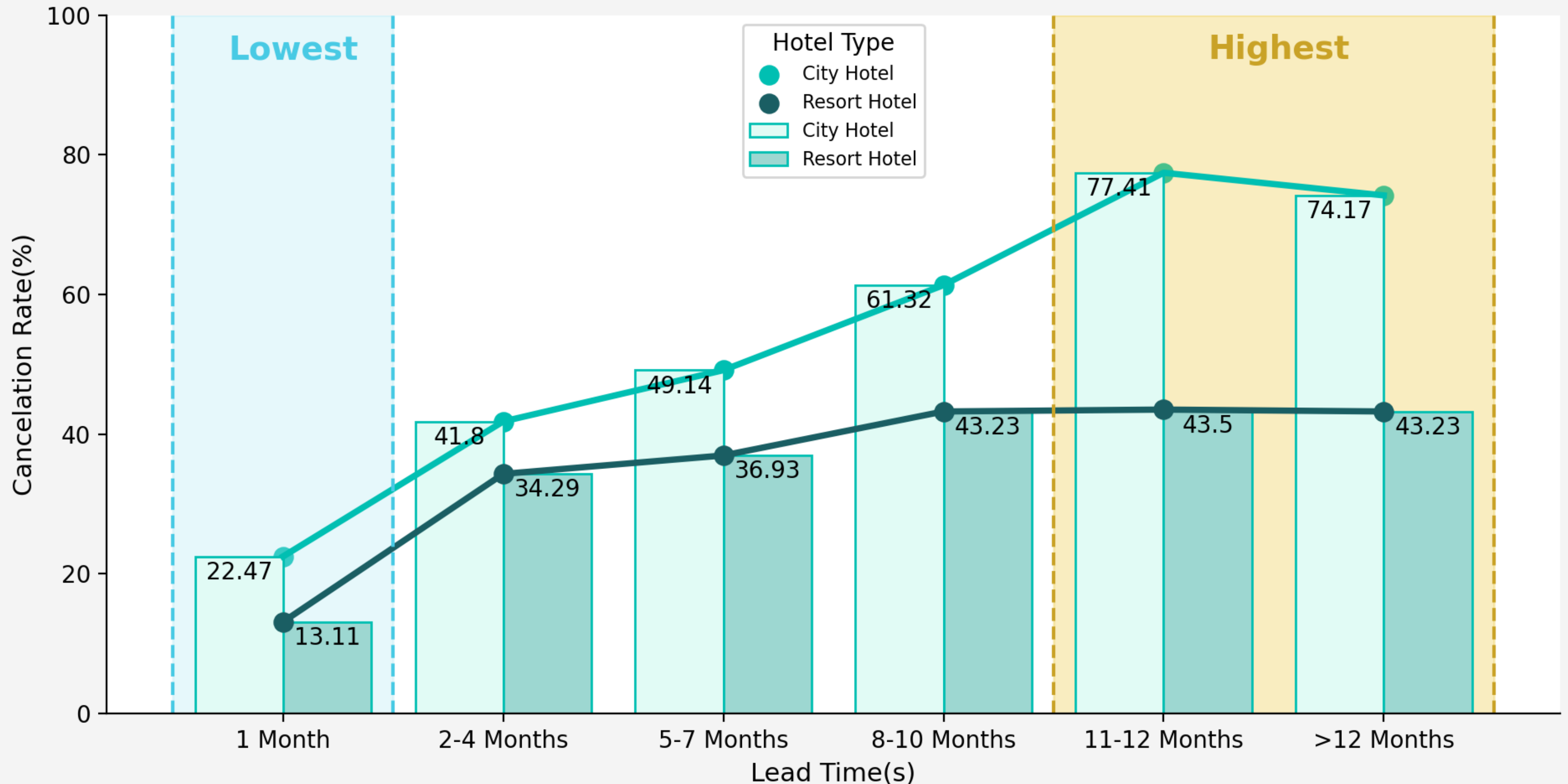
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Cancelation Rate of Hotel Bookings per Lead Time Based on Hotel Types

Both hotel types has lowest cancelation rate on 1 month lead time (city = 22.47%; resort = 13.11%) and highest cancelation rate on >11 months lead time (city = 77.41%; resort = 43.5%).



Summary

- Both hotels have more guests during the holiday season, and City Hotel has more guests than Resort Hotel. Need further analysis to make a strategy for leveraging revenue in holiday season
- The longer total night booked, the higher the percentage of being cancelled, and the City hotel has a steeper trend compared to the Resort hotel. Positive trend on Total Night and Cancellation Rate for both hotels type, the hotels should apply a cancellation policy.
- The lowest booking cancellation rate is for bookings with a waiting time of fewer than 30 days and it applies to both types of hotels.
- Both resort and city hotels have the highest cancellation rate more than 1 year of lead time. The hotel could give reminders to them so that they would not cancel their reservation. Also, applying a cancellation policy on every reservation could help the hotel to prevent this from happening.

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THANK YOU!

