

Data Overview

- ✚ This dataset stores the booking information in the property management system (PMS) of a **resort hotel** and a **city hotel**. They are located at the resort region of Algarve and the city of Lisbon in Portugal.
- ✚ The dataset comprehends bookings due to arrival between the **1st of July of 2015** and the **31st of August 2017**, including bookings that effectively arrived and bookings that were cancelled.
- ✚ The data from both hotels share the same structure, with **31 columns** describing **40,060 bookings of the resort hotel** and **79,330 bookings for the city hotel**.

Inference:

- **The cancelation rate of the city hotel is 42.2% and is higher than that of the resort hotel (28.3 %).** One of the causes can be different customer profiles of these two hotels: The resort hotel customers are more likely to visit the hotel on a well-planned trip, while those checked-in the city hotel usually travelled for diverse purpose, therefore the city hotel customers are more likely to cancel their bookings.
- We observe that most of the customers arrived have used **online method of registration** with **49% in city hotel** and **44% in resort hotel**.
- The customers who have previously visited i.e **repeated customers** are very low as compared to new customers. The count of new customers peaked on December 2015, also the repeated customers peaked on October 2015. This may be due some special events on this day.
- When we look at the **room type assigned** to the customers, 70% of the rooms-type A is assigned to the customers in **city hotel** followed by room-type D. The same pattern follows for the **resort hotel** as well. Since more customers prefer room-type A and D, the hotel authorities should take into consideration in order to gain more profit.
- The **lead time** in city hotel **peaks** in the month of **July and August**, and it's lowest at the beginning of the year, this may be due to the immediate schedule of events during the new year.
- Both the **repeated and new customers** go for the room **type A** and prefer **Bed and Breakfast**. In resort and city hotel most of the repeated customers come from cooperate market segment and new customers from online booking.
- **Average daily rate** in both the hotel follows a **seasonal pattern** which peaks in month on June and drops by year end.
- The **top three** (the resort hotel) / two (the city hotel) room types accounts for 75% and 80% of the overall reservation. However, these demands were not all met. There are **reserved and assigned room-type mismatch**, which may lead to **customer disappointment**.
- About 70% and 65 % of the **revenue** comes from **customer type 2** in both city and resort hotels respectively. So the authorities should focus more on these customers.
- The highest customers arrive from the countries such as,
 - Portugal – 40%
 - United Kingdom – 10%
 - France – 9%
 - Spain – 7%
 - Germany – 6%
 - Italy – 3%