Digital Skola Batch 17 - Homework Data Visualization

Homework

Anda telah mendapatkan pekerjaan dengan operator Hotel Ritz-Jager, sebagai data scientist. Operator hotel ini ingin meningkatkan efisiensi bisnis mereka dengan memanfaatkan data historis mereka dan mereka ingin mengetahui apa yang terjadi pada pemesanan mereka sebelumnya, mengenal pelanggan mereka lebih baik, dan mengoptimalkan waktu promo. Tim anda harus menganalisis data yang mereka miliki berdasarkan pertanyaan yang telah ditentukan sebelumnya yang diberikan oleh CEO anda.

Dataset tugas ini dapat diunduh di sini:

https://drive.google.com/file/d/1X3EIx_2ZiZmD0Pwaz-_Os5uy0STpU4e8/view?usp=sharing

Jawablah pertanyaan di bawah ini dengan menggunakan visualisasi data sebagai alat untuk menyampaikan informasi

1. Dari negara mana saja pengunjung hotel berasal? Perlihatkan 5 negara dengan jumlah booking selesai terbanyak dan 5 negara dengan jumlah booking selesai paling sedikit

2. Perlihatkan jumlah booking berdasarkan market segment!

3. Berapa banyak jumlah pemesanan yang dibatalkan per tipe kamar hotel?

4. Pada Bulan apa terjadi jumlah pembatalan booking tertinggi?

Instructions

Submit setiap langkah yang sudah anda lakukan (dalam bentuk Jupyter Notebook, .ipynb) serta berikanlah penjelasan terkait logic code yang anda tuliskan

Data dictionary

Column Name	Definition
hotel_type	Types of the hotel, Resort Hotel, or City Hotel
is_canceled	The value indicating if the booking was cancelled (1) or not (0)
lead_time	Number of days that elapsed between the entering date of the booking into the PMS and the arrival date
arrival_date_year	Year of arrival date
arrival_date_month	The month of arrival date
arrival_date_week_number	Week number of year for arrival date
arrival_date_day_of_month	Day of arrival date
stays_in_weekend_nights	Number of weekend nights (Saturday or Sunday) the guest stayed or booked to stay at the hotel
stays_in_week_nights	Number of weeknights (Monday to Friday) the guest stayed or booked to stay at the hotel
adults	Number of adults
children	Number of children
babies	Number of babies
meal_type	Type of meal booked. Categories are presented in standard hospitality meal packages: **Undefined/SC** – no meal package; **BB** – Bed & Breakfast; **HB** – Half board (breakfast and one other meal – usually dinner); **FB** – Full board (breakfast, lunch and dinner)
country_origin	Country of origin. Categories are represented in the ISO 3155–3:2013 format
market_segment	Market segment designation. In categories, the term "TA" means "Travel Agents" and "TO" means "Tour Operators"
distribution_channel	Booking distribution channel. The term "TA" means "Travel Agents" and "TO" means "Tour Operators"
is_repeated_guest	The value indicating if the booking name was from a repeated guest (1) or not (0)
previous_cancellations	Number of previous bookings that were cancelled by the customer prior to the current booking
previous_bookings_not_canceled	Number of previous bookings not cancelled by the customer prior to the current booking
reserved_room_type	Code of room type reserved. Code is presented instead of designation for anonymity reasons.
assigned_room_type	Code for the type of room assigned to the booking. Sometimes the assigned room type differs from the reserved room type due to hotel operation reasons (e.g. overbooking) or by customer request.

booking_changes	Number of changes/amendments made to the booking from the moment the booking was entered on the PMS until the moment of check-in or cancellation
deposit_type	Indication on if the customer made a deposit to guarantee the booking. This variable 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.
agent_ID	The ID of the travel agency that made the booking
company_ID	ID of the company/entity that made the booking or responsible for paying the booking. ID is presented instead of designation for anonymity reasons
days_in_waiting_list	Number of days the booking was in the waiting list before it was confirmed to the customer
customer_type	Type of booking, assuming one of four categories: **Contract** – when the booking has an allotment or other type of contract associated to it; **Group** – when the booking is associated to a group; **Transient** – when the booking is not part of a group or contract, and is not associated to other transient booking; **Transient-party** – when the booking is transient, but is associated to at least other transient booking
adr	Average Daily Rate as defined by dividing the sum of all lodging transactions by the total number of staying nights
required_car_parking_spaces	Number of car parking spaces required by the customer
total_of_special_requests	Number of special requests made by the customer (e.g. twin bed or high floor)
reservation_status	Reservation last status, assuming one of three categories: **Canceled** – booking was canceled by the customer; **Check-Out** – customer has checked in but already departed; **No-Show** – customer did not check-in and did inform the hotel of the reason why
reservation_status_date	Date at which the last status was set. This variable can be used in conjunction with the ReservationStatus to understand when was the booking canceled or when did the customer checked-out of the hotel