## **EDA** questions

- 1. Understand the distribution of arrival dates, including the most common arrival days and summary statistics for lead times.
- 2. Identify peak booking months and analyze reasons for spikes in bookings, including holidays or events.
- 3. Calculate the average length of stays for different hotel types and explore variations by meal plans.
- 4. Analyze how booking patterns have evolved over the years, including yearoveryear changes in bookings and cancellations.
- 5. Understand the distribution of the number of adults, children, and babies and identify any outliers.
- 6. Calculate summary statistics for ADR and explore differences between Resort Hotel and City Hotel bookings.
- 7. Analyze the distribution of required car parking spaces for each hotel type and determine if one type attracts more guests with cars.
- 8. Compare the total number of special requests made by different customer types (e.g., Transient, Group) and identify which customer type makes more requests.
- 9. Understand the distribution of meal plans (e.g., BB, HB, FB, SC) and identify any patterns or preferences.
- 10. Analyze Average Daily Rates (ADR) by meal plan type to identify variations in pricing.
- 11. Investigate the distribution of required car parking spaces and special requests by hotel type and meal plan. 12 .Compare the distribution of meal plans among different customer types (e.g., Transient, Group) to identify preferences.
- 12. Understand the distribution of bookings across different market segments and calculate summary statistics for lead times within each segment.
- 13. Analyze the distribution of bookings through different booking channels (e.g., online travel agents, direct bookings) and calculate the percentage of bookings through each channel.
- 14. Calculate the proportion of repeated guests and investigate their booking behavior. Identify any patterns or differences in preferences compared to firsttime guests.

- 15. Explore the impact of a guest's booking history on their likelihood of canceling a current booking. Calculate cancellation rates based on previous cancellations and noncanceled bookings.
- 16. Understand the distribution of reserved and assigned room types. Calculate summary statistics for the consistency between reserved and assigned room types.
- 17. Analyze the impact of booking changes on cancellation rates. Calculate cancellation rates for bookings with different numbers of changes.
- 18. Explore how room type preferences vary across different customer types (e.g., Transient, Group). Identify if certain customer types have specific room preferences.
- 19. Examine whether guests who make multiple bookings have consistent room type preferences or if their preferences change over time.
- 20. Understand the distribution of reservation statuses and calculate summary statistics for reservation status dates.
- 21. Analyze trends in reservation status dates, including the most common checkout dates and any seasonality patterns.
- 22. Explore how reservation statuses vary across different customer types (e.g., Transient, Group) using Excel or SQL. Calculate cancellation rates by customer type.
- 23. Investigate whether there are differences in Average Daily Rates (ADR) based on reservation status (e.g., canceled vs. checkedout).