Name: Jonathan Arcentales

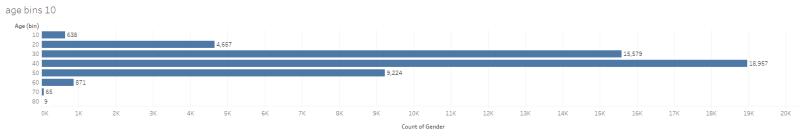
## **Executive Summary**

This data analysis project will assist us in customer segmentation and help us understand what works best for the company. I have conducted various analyses to determine how flights have been sold and hotels have been booked, taking into account factors such as age, gender, and the duration of time customers have spent on the website. As previously explained, we have considered data from the past seven months, along with more than seven interactions on the website. This approach will yield more valid results for our objective.

The objective of this analysis is to, through data segmentation and cleansing, extract the necessary insights to understand how customers have interacted with the website and, if applicable, confirm whether the discounts offered on hotels have had an impact on sales. The study has been analyzed by gender, age, and the time customers spent on the website to make a hotel reservation.

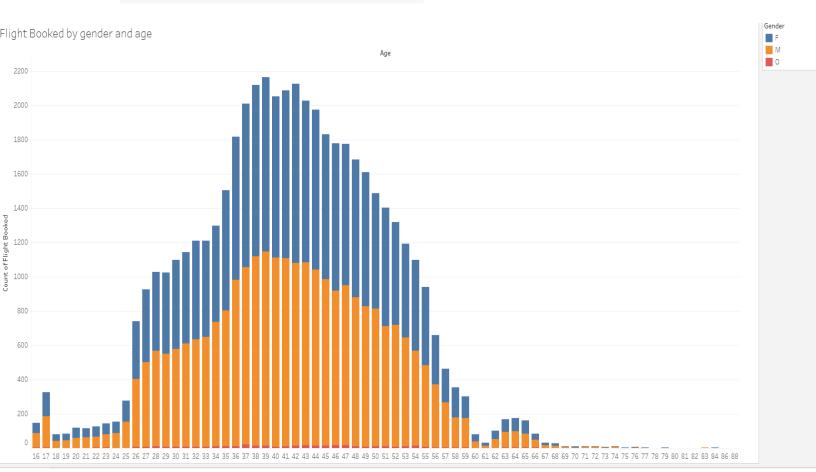
As a methodology, we initially cleaned the data in SQL to prepare it for the necessary analyses and to transform null values into more user-friendly formats for utilization within Tableau, facilitating visualization. In the visualizations presented below, you will notice that we segmented ages into 10-year intervals. Furthermore, we calculated averages for gender, hotel discounts, hotel nights, and checked bags, all categorized by gender. Additionally, I examined the time it took to make hotel reservations down to the minute over a seven-month period. Finally, we have data on the maximum number of nights reserved, categorized by gender and age, as well as the average number of reservations per hotel discount. Next we can review all the visualizations.

## Age Bins:



In this visualization, I performed segmentation to group individuals by age into bins of 10 years each.

## FLIGHT BOOKED BY GENDER AND AGE

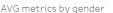


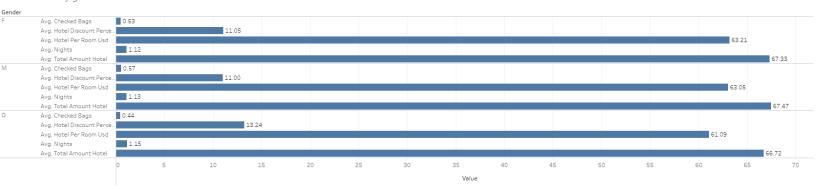
In this chart, we will examine flight reservations categorized by gender and age. Through this analysis, we can discern that males aged 39 have made the highest number of flight reservations, totaling 1133 flights. On the other hand, among females, those aged 42 have booked a substantial 1048 flights.



In this visualization, one can observe the amount of time individuals spent on the website before making a hotel reservation. Generally, throughout the months of our research, it is evident that the individuals who made the most hotel reservations were those who spent approximately two minutes interacting with the website before completing their bookings

## Avg metrics by gender





In this final analysis, I provided an overview of the metrics present in our data. This allowed us to observe various studies segmented by gender. One of the key findings is that, on average, individuals spent approximately \$66 to \$67 on hotel accommodation for an average stay of one night. Furthermore, the average discount utilized fell within the range of 11% to 13%. Consequently, we can infer that discounts alone are not the sole factor in capturing customers' attention. It is likely that discounts on flights or checked baggage also play a significant role in encouraging individuals to purchase flight and accommodation packages.

As a final recommendation from this study and research, I would like to conclude that, based on our findings, hotel discounts have indeed contributed to generating some profits. However, it appears that the profits generated may not be significant enough to justify the expenses associated with maintaining these hotel discounts. Therefore, it might be beneficial to shift our focus within the website, emphasizing the discounts and the advantages of making discounted bookings, including the percentage savings.

By doing so, we can incentivize customers to make discounted reservations, which could, in turn, encourage them to return and recommend our services to others.

Additionally, offering discount packages for bookings spanning more than one night could be a more enticing strategy. On average, people utilized discounts for single-night stays, which may not yield substantial profits. However, if we promote packages for multiple-night stays, it could be more appealing to customers, leading to higher spending and word-of-mouth recommendations.

With these recommendations, I conclude my research and analysis. If you have any questions or need further information, please do not hesitate to reach out. Thank you for your time and attention.