Understand Airbnb Performance Using SQL & Tableau Data Analysis Project

**GOAL:** To analyze and study Airbnb performance in New Zealand.
- Understand the popularity of Airbnb via location
- Analyze how the pricing varies with location, property type, and reviews
- Explore the dynamics of the host

Intro to Airbnb:

Founded in August 2008 in San Francisco, California, Airbnb is an online marketplace for travelers to list, discover, and book authentic accommodations to stay worldwide through local hosts. Whether it is a spare bedroom, a villa, an apartment, Airbnb manages to connect travelers to a more diverse range of experience in over 220 countries and with 5.6 million listings worldwide.

## The popularity of Airbnb Locations in NZ:

Based on popularity locations, the chart below shows that 18.78% of Airbnb listings are located in Auckland, and 10.76% of listings are located in Queenstown. Almost 30% of all Airbnb listings are located within these two cities, which are famous hotspots for adventure parks, water rafting, bungee jumping, Sky Tower viewing, wine tours, and convenient transportation.
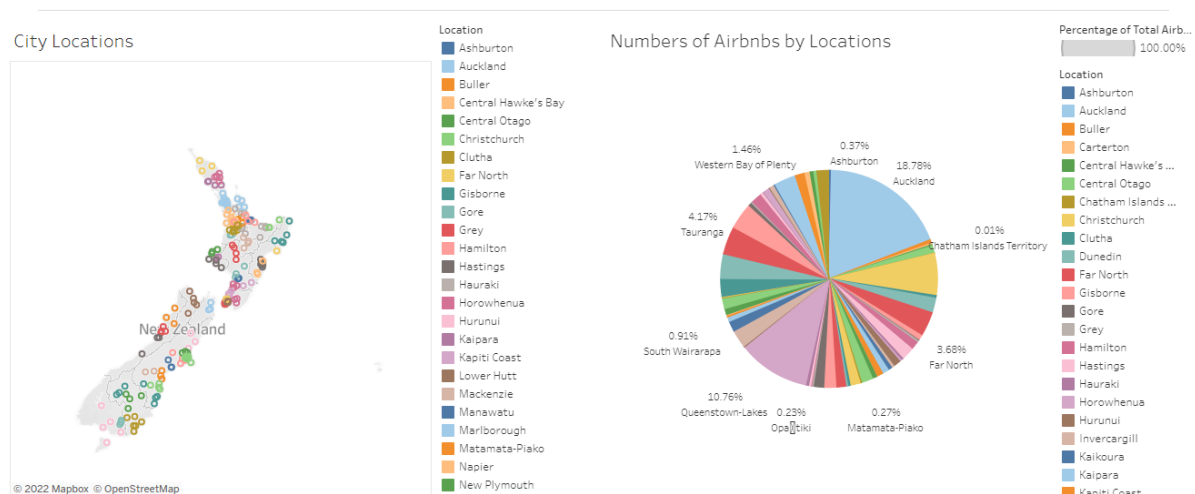
## The variation of prices, reviews, and room via locations:

Users of Airbnb rate their stay based on various factors such as price reviews, location, experience, and cleanliness, so using this data, I calculated the divergence of the average price per location and the number of reviews. What I found interesting was that the average price and number of reviews didn't have a considerable

positive correlation. The costly city locations didn't tend to have more reviews as the majority of users would prefer to stay at a cheaper Airbnb, then take transportation to city hotspots.
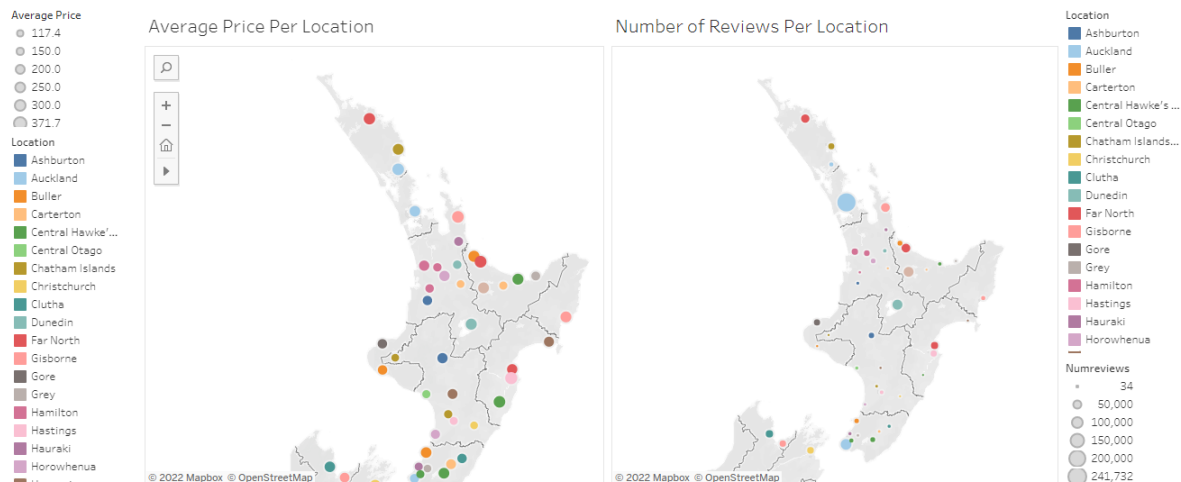
Which location is expensive?

From the data, we can see that some highly-rated locations tend to be more costly due to constant supply and higher demand, which inevitably increases the price. The chart also shows that Queenstown has the highest average, $432.80, because of the location and demand. However, what surprised me the most was the fact that Hastings came in second to Queenstown, averaging a nightly charge of $338.80. It was interesting to observe that Hasting came in second; however, there are various attractions in hastings such as the wineries, splash planet, and different scenic tours. This could also be because there are few listings in Hastings compared to other locations within NZ.
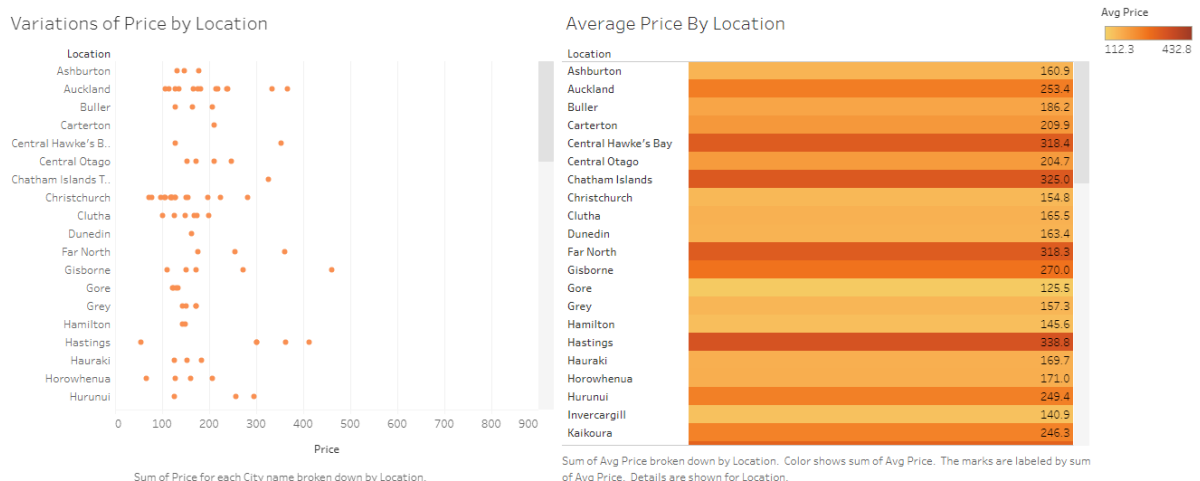
What location is the best?

According to the number of review maps, Auckland displays the highest number of reviews per location, with 241,732 reviews. This is because it is closest to the most famous hotspots (Sky Tower, adventure parks, Harbour bridge viewings, etc.) along with functioning transportation.
Looking at the last review by year, we can see that the number of appraisals has consistently been increasing since 2011, with a massive increase in the year 2021. This is potentially due to users wanting to share their experience with other users, giving them a chance to select an accommodation that best suits their needs.
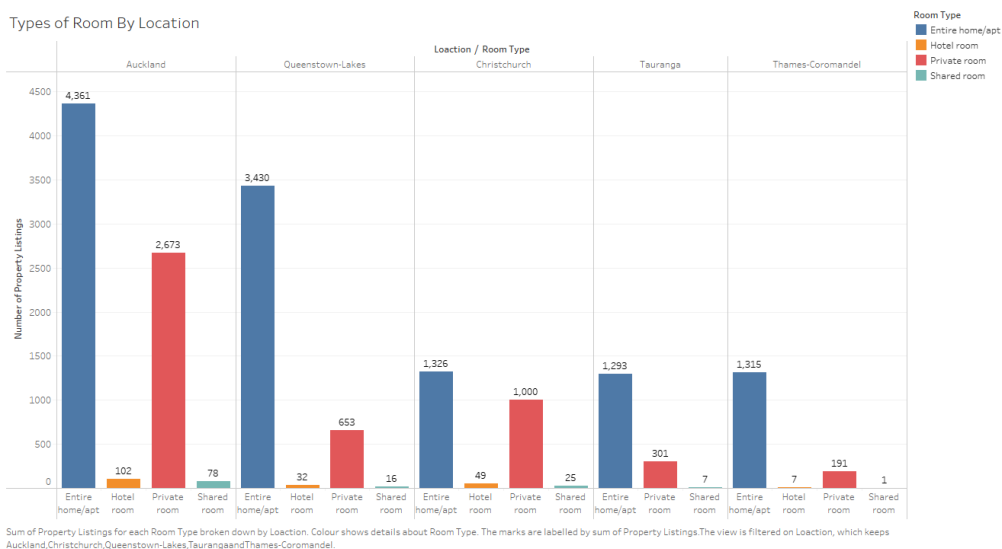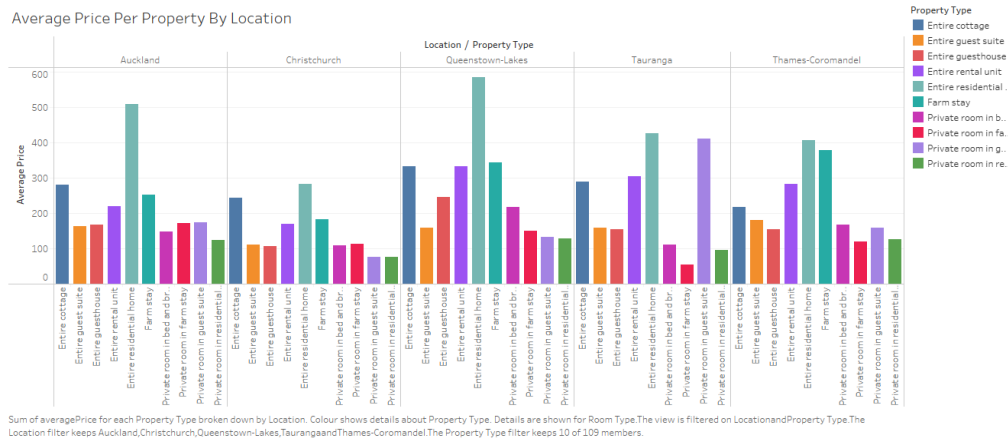
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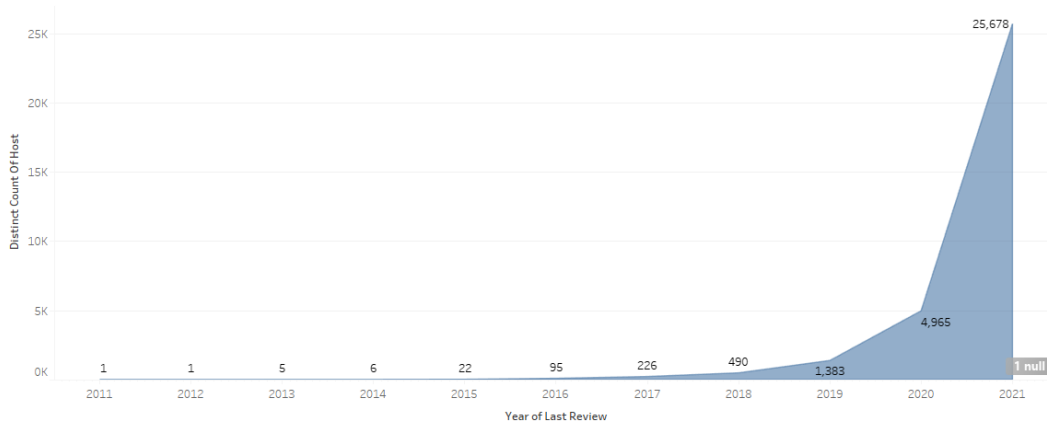
What types of rooms are available in NZ?

Exploring the data via room type, the chart below shows the different types of rooms by location. The chart shows that Auckland and Queenstown provide the most living space, once again illustrating the high demand.

Types of Room By Location

Sum of Property Listings for each Room Type broken down by Loaction. Colour shows details about Room Type. The marks are labelled by sum of Property Listings.The view is filtered on Loaction, which keeps Auckland,Christchurch,Queenstown-Lakes,TaurangaandThames-Coromandel.

Not only that, but you can see that the most popular room type based on the number of property listings is the Entire home/apt. From the data below, we can see that the chart breaks apart the room types into their specific property category, showcasing the most popular property type to purchase is the 'Entire residential home' in almost 90% of locations in New Zealand. This can be attributed to the fact that it is more comfortable and affordable to stay in these rooms than the rest.

Sum of averagePrice for each Property Type broken down by Location. Colour shows details about Property Type. Details are shown for Room Type.The view is filtered on LocationandProperty Type.The Location filter keeps Auckland,Christchurch,Queenstown-Lakes,TaurangaandThames-Coromandel.The Property Type filter keeps 10 of 109 members.

Host dynamic

I explored how busy hosts are located in New Zealand by analyzing all the data. From that, I have come to find that with the variation of prices per location and the number of Airbnb and reviews per location, we understand that Auckland and Queenstown provide the most rooms and houses and provide a reasonable price depending on the property type. The chart below displays the top 10 busiest hosts from Auckland and Queenstown.
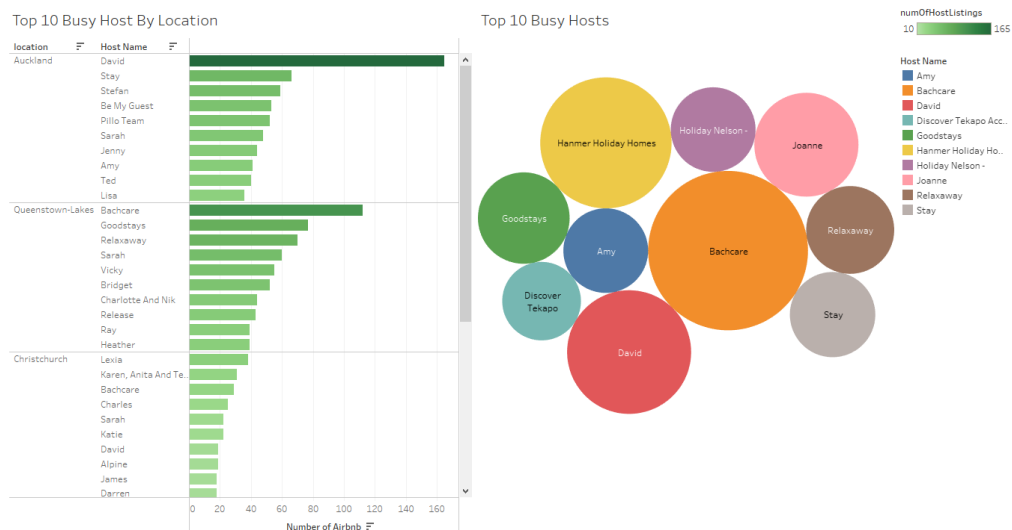
Overall:
Looking at the data, I believe that Airbnbs will steadily increase, primarily due to the last review-by-year graph, which realizes the demand for Airbnb rentals in New Zealand. Furthermore, I assume that the number of reviews data corresponds to the Airbnb market, enabling users a more excellent alternative to other forms of lodging. To sum up, Airbnbs have seen a significant increase in the country, with the above analysis representing that Airbnb is still a substantial market for accommodation in New Zealand.

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