

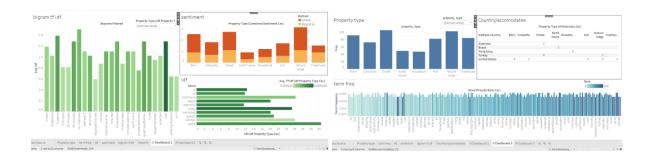
Airbnb's Nature Retreat Expansion Insights

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Unveiling exciting business insights for Airbnb, we have targeted 'Nature Enthusiasts' and tapped into a growing trend among younger demographics seeking countryside getaways for nature immersing and engaging in activities like hiking and water surfing. By leveraging text mining, we have identified key amenities and location-specific attributes driving business value, empowering hosts to make strategic marketing decisions. The data-driven approach highlights lucrative opportunities for Airbnb expansion, particularly in offering nature retreats like treehouses in Hawaii, barns in the US, chalets in Turkey and Australia, Earth houses in Brazil and Houseboats in Hong Kong, while guiding property positioning strategies for sustained business growth.

We have targeted 'Nature Retreats' encompassing Barn, Campsite, Chalet, Earth house, Houseboat, Hut, Nature Lodge and Treehouse. Through text mining framework we utilized term frequency, Zipf's law, bigrams with TF-IDF, sentiment analysis (AFINN and Bing et al.), IDF and LDA (Beta and Gamma) to uncover keywords with hidden business potential, enhancing Airbnb's revenue prospects.

These dashboards display sentiment, bigrams, tokens, and term frequency analysis for 8 accommodation types, potentially driving high business value. Overall sentiment is positive with darker shades of green and blue indicating high value of TF-IDF and rank respectively, suggesting promising commercial potential.





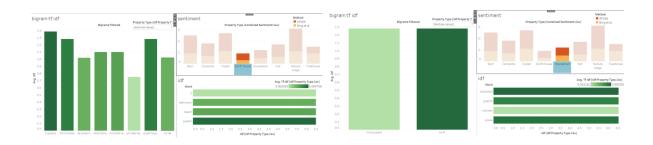
Barns in US are characterized by features like '2 bath', 'bedroom 2', 'shopping centre', 'wi fi', 'equipped kitchen', 'beach', 'beautiful', 'silverware', 'spas'. Barns equipped with modern amenities nearby shopping centres and beaches exhibit promising potential.



Chalets in Turkey and Australia highlight bigrams 'minutes walking' and 'walking distance' alongside Turkish terms like 'özellikle', 'tutmak', 'sebebiyle' as well as 'stress' and 'nostalgic', which hold high rank. The high TF-IDF value of 'beach' suggests lucrative business opportunities for chalets walking distance from beaches in Turkey and Australia.



Earth house in Brazil exhibits promising business potential, with the bigrams 'de janeiro', 'quiet neighbourhood' and 'international airport'. This underscores Earth houses near the airport can yield substantial revenue for international travellers to Brazil. Houseboat in Hong Kong accommodating 6 guests features essential terms 'equipped' with 'kitchen' and 'sq ft' emphasizing the significance of space for guests.





Treehouse in US, specifically 'nāhuku' and 'hawai' i' in Hawaii stands out with its notable rank.

Bigram 'king bed' offering views of 'volcanoes' from the 'treetops' on the 'western' side, along with 'moonlit' sky signals promising business prospects.



Analysis of the LDA for the entire dataset, Airbnb DTM, shows that the tokens can be grouped in 3 topics: Topic 1 focused on generic terms related to accommodations, e.g. "room," "apartment," "bed," "bathroom," "kitchen"; Topic 2 revolves around terms related to residential properties or vacation homes, e.g. "house," "beach," "kitchen," "bedroom," "living"; Topic 3: revolves around terms associated with the location and amenities, eg. "located," "walk," "minutes," "restaurants," "city". Upon analysis of gamma values, Barn, Campsite, Chalet has high probability in Topic 2 whereas Earth house has a high probability in Topic 3.

The analysis uncovers lucrative opportunities for expanding Airbnb business across diverse property types like treehouses in Hawaii, barns in US, beachside chalets in Turkey and Australia and serene Earth houses in Brazil. Additionally, text mining unveils key themes within Airbnb listings, enabling hosts to strategically market and position their properties based on distinct clusters related to generic terms, residential features, and location-specific amenities, thus fostering business growth.