**EDA on Airbnb Bookings Dataset**

| **Team Member’s Name, Email and Contribution:** |
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| **Pankaj Beldar**  Email – [pankajrbell@gmail.com](mailto:pankajrbell@gmail.com)  Project Contribution: -   * Data Wrangling – Handled Null Values, Re-evaluated the minimum price of listings which were initially assigned to zero, conversion of minimum nights to at most a year. * Plot Correlation Matrix and Pair Plot * Analysis of preferred location against average price * Analysis of where most hosts are located * Analysis of highest and lowest rent paying as per locations * Analysis of most popular hosts based on listings and reviews * Analysis on establishing relation between neighborhood groups and availability of rooms * Colab to pdf conversion   **Siddhartha Pasayat**  Email – [siddharthapasayat@gmail.com](mailto:siddharthapasayat@gmail.com)  Project Contribution: -   * Data Wrangling – Handled Null Values, Re-evaluated the minimum price of listings which were initially assigned to zero, conversion of minimum nights to at most a year. * Analysis of hosts and neighborhoods based on possible turnover * Analysis of Room type selection and distribution based on price and its availability * Analysis of top ten neighborhoods based on (median) listing price * Analysis of properties/hosts mandatory stay periods for single booking * Analysis on types of visits based on mandatory stay periods for single bookings * Marketing Initiative and Campaigns |
| **Github & Drive Link** |
| Git Hub Link -  <https://github.com/pankaj-beldar/Capstone_Project01_Airbnb_Booking_Analysis>  Drive Link- <https://drive.google.com/drive/folders/153mybrx7S9Tds5staa8v3EO8Ytxh95qa?usp=sharing>  LinkedIn -  <https://www.linkedin.com/in/pankaj-beldar-0187a21b3/> |
| **Summary:**  Airbnb, as in “**Air Bed and Breakfast**,” is a service that lets property owners rent out their spaces to travelers looking for a place to stay. Travelers can rent a space for multiple people to share, a shared space with private rooms, or the entire property for themselves. The model also gives you the opportunity to customize and personalize your guests’ experience the way you want. Airbnb was started in 2008 by Brian Chesky and Joe Gebbia, based in San Francisco California. The platform is accessible via website and mobile app.  We have the Airbnb Bookings dataset for the year 2019 on NYC.NYC is one of the most expensive, posh and densely populated localities to live in USA. We had to perform a well scrutinized and in-depth analysis to unravel and unveil a lot of relations and information that will give us a chance to implement good marketing initiatives and creative campaigns.  The dataset is affluent in a lot of information like coordinates of localities, host names, prices, room types, availability, minimum nights, reviews etc. With these features present we tried to establish and extract information related to posh localities in NYC, top hosts based on reviews, listings, minimum mandatory stays, types of room available and its distribution, popular neighborhoods based on possible turnover generated etc. We did perform data wrangling, handled missing and null values, and re-evaluated certain features. We’ve plotted neighborhood wise data and distribution of our numerical features by performing univariate and bivariate analysis with multiple features and relations. We haven’t handled outliers in our analysis and focused mostly on the neighborhood group of NYC as compared to the neighborhood. We weren’t able to perform sentiment analysis or the property quality analysis due to the absence of data related to it, but can surely come up with Manhattan and Brooklyn being the posh and elitist of neighborhood groups. People here generally prefer a lavish and extravagant lifestyle as these are the buzz places and financial hubs of NYC. Room wise preference and presence is mostly for Entire Home/Appt. and Private rooms as compared to shared ones. Location plays a crucial factor in deciding a property price but that doesn’t mean property in popular locations will stay occupied for most of the season. Most high-end areas prefer guests to stay for longer duration during their visits.  Manhattan and Brooklyn are the posh areas in NY as there is maximum footfall and properties based on prices and listings are on the higher side. Manhattan and Brooklyn have the highest number of hosts. Manhattan has the highest number of Private rooms and Entire House/Apt. in culmination followed by Brooklyn. Highest accommodations are available in Manhattan, Brooklyn and Queens. Most popular hosts are Sunder, Blue-ground, Kara to name a few based on number of reviews and calculated host listing counts. Staten Island seems more available for booking throughout the year compared to other neighborhoods. Financial District, Midtown, Chelsea are some of the top neighborhoods based on their turnover. Shared rooms are mostly available over other room types and Entire Home /Apt which has the highest proportion of room share are mostly on the expensive ends. Fort Wadsworth and Woodrow are expensive neighborhoods based on median listed price belonging to Staten Island. Most hosts allow a minimum 5 night mandatory stay for single booking but the average increases in case of Manhattan, Brooklyn and Queens. Bronx and Staten Island are mostly preferred for Shorter visits and onwards and others are for slightly longer stays.  We have also come up with certain marketing campaigns and creative initiatives focused on neighborhood groups like festive discounts, loyalty coupons, frequent check-in cards and more to increase the traction and business viability. |