# Memo

**To:** Professor Ying Lin

**From**: Cheromaine Smith

**CC**: Yesul Song, Christine Kwan

**Subject**: Proposal for Developing a Data-Driven Marketing Tool Using Airbnb Data

Today, our team engaged in a thorough discussion about our goals for this project and the project's trajectory, resulting in a unanimous decision to pivot towards an innovative and impactful direction. We are eager to contribute meaningfully to the marketing and consumer behavior industry, and to this end, we have conceptualized a product that stands to revolutionize how research is conducted within this sector.

For this project, we chose to focus on Airbnb listing data from New York City available on Kaggle. We would like to create a state-of-the-art research tool designed to cater to the unique needs of marketers, urban planners, and hospitality managers. Our datasets would be comprised of variables such as price, location, number of bedrooms, amenities, number of reviews, and host information.

The core functionality of our tool lies in its ability to provide insights into marketing trends. Each program is engineered to capture and analyze pertinent data, ensuring that our users have access to comprehensive and up-to-date information to inform their marketing decisions. Based on the results, we will attempt to bring in predictive analysis for future strategic marketing plans.

To analyze this dataset, we will use statistical analysis techniques such as correlation matrices, and visualizations to interpret the relationship between price fluctuations and consumer ratings. Developmentally, we will need to create a reusable loop for grouping listings by neighborhood. Once common factors group variables, comparisons can then be done using a population dataset. While it could be interesting to broaden this project to cover additional demographics and economic factors, the next steps will be based on preliminary results.

We see this tool being widely accessible soon, and to that end, we will be exploring a subscription-based model. We believe that this approach will 'democratize' access to high-quality marketing research, instead of being stuck behind a corporate wall. We look forward to your response as we believe your insights and feedback will be invaluable.