Airbnb Price Prediction Task

This exercise involves a dataset related to Airbnb pricing, which has been modified from a publicly available version.

Your task is to analyze this dataset and suggest an optimal ML approach for processing the data and predicting an Airbnb’s prices.

While the expected duration for this task is 2 hours, a hard cap of 3 hours is set. Please adhere to this time limit on the honor system.

It's not mandatory to reach the machine learning modeling phase within this timeframe. If you are unable to develop an actual ML model, it won't negatively impact your evaluation. However, you should ideally be able to outline a reasonable approach for building a model given specifics of the dataset.

The dataset includes three files: Train.csv, Test.csv, and Inference.csv. The Inference.csv file represents presently available data for which the prices are unknown and need to be predicted.

Please address the following questions:

1. What machine learning modeling approach would be best suited for this task and why?

2. How can we most effectively utilize the entirety of the dataset?

a. Are there any potential issues that may prevent us from using all the data?

3. How do you plan to measure the success of the model?

4. What should be the success threshold for deploying this model on the Airbnb website and why?

5. Please provide all analytical code and supporting graphs for your approach.

6. If you were able to conduct any ML modeling, kindly share the code and results (this is optional).

7. How much time did you spend on this assignment?

Your thoroughness and clarity in addressing these questions, along with the quality of your analysis, will be key factors in evaluating your performance on this task. Happy analyzing!