

## Beijing Project

In this project, we worked with real data on houses in Beijing and conducted a thorough and valuable analysis on this dataset. We presented the analysis results using charts.

1. In the first step of the project, we read files containing unusual characters, observed the different features of each house, and removed the unnecessary features. Next, we identified the number of rows with missing values and devised a solution to fix them.
2. In this section, we converted the numerical and non-numerical data of the dataset into the appropriate format so that we do not face any challenges in performing the analysis. We also eliminated outliers, such as extremely expensive or cheap houses that were uncommon.
3. The Beijing City Houses dataset provides us with very useful information, but sometimes new features can be generated using existing ones. For example, by having the total area and price of each house, we can calculate the price per square meter for each house, which is an important feature in the analysis of housing information. In this part of the project, we added two new features to our dataset, and then, using visualization tools, we started drawing graphs to explore the relationships between them.
4. In the data set of Chinese houses, the geographical coordinates of each house are known. Using the scatter function of the Matplot library, houses can be drawn based on their location and then analyze the map. Very useful information can be extracted from these maps. The density of different areas, the characteristics of houses in each area (having an elevator, square footage, price, etc.) are some of the information that can be obtained from this chart. In this step of the project, we draw these diagrams.
5. In the last step of the project, we obtained a comprehensive report on the characteristics of each region. We also performed two analyzes on time series using the time of transactions