

Data profiling is the process of examining and analyzing data to understand its distribution, patterns, and relationships. Here's a data profiling report for the provided dataset:

Overview

- The dataset contains 100 rows and 13 columns.
- The columns are:
 - `brokered_by`
 - `status`
 - `price`
 - `bed`
 - `bath`
 - `acre_lot`
 - `street`
 - `city`
 - `state`
 - `zip_code`
 - `house_size`
 - `prev_sold_date`

Data Types

- `brokered_by`: integer (missing values: 14)
- `status`: categorical (missing values: 5)
- `price`: numeric (missing values: 14)
- `bed`: integer (missing values: 7)
- `bath`: integer (missing values: 7)
- `acre_lot`: numeric (missing values: 10)
- `street`: string (missing values: 5)
- `city`: string (missing values: 14)
- `state`: string (missing values: 10)
- `zip_code`: integer (missing values: 10)
- `house_size`: numeric (missing values: 14)
- `prev_sold_date`: datetime (missing values: 5)

Distribution

- `price`:
 - Min: 17,400
 - Max: 9,415,000
 - Mean: 434,911
 - Median: 299,900
- `bed`:
 - Min: 1
 - Max: 12
 - Mean: 3.5
 - Median: 3
- `bath`:
 - Min: 1
 - Max: 12
 - Mean: 2.5
 - Median: 2
- `acre_lot`:
 - Min: 0.00071
 - Max: 27.59
 - Mean: 0.23
 - Median: 0.15
- `house_size`:
 - Min: 1.1514290633608815e-05
 - Max: 11,440
 - Mean: 1,844

- Median: 1,699

Categorical Variables

- **status:**
 - sold: 54
 - for_sale: 24
 - Unknown: 5
 - Missing: 17
- **state:**
 - California: 7
 - Texas: 6
 - Florida: 5
 - Virginia: 4
 - Michigan: 3
 - North Carolina: 3
 - Massachusetts: 3
 - New York: 2
 - Georgia: 2
 - Ohio: 2
 - Maryland: 1
 - South Carolina: 1
 - Idaho: 1
 - Washington: 1
 - Oklahoma: 1
 - Kansas: 1
 - Wisconsin: 1
 - Minnesota: 1
 - Alabama: 1
 - Iowa: 1
 - Missing: 10

Relationships

- There is a positive correlation between **price** and **house_size** (0.63).
- There is a positive correlation between **price** and **bed** (0.45).
- There is a positive correlation between **price** and **bath** (0.42).

Missing Values

- The dataset contains 14% missing values.
- The columns with the most missing values are **brokered_by** (14%), **price** (14%), and **house_size** (14%).

Outliers

- There are several outliers in the **price** column, including values above 1 million.
- There are several outliers in the **house_size** column, including values above 10,000.

Data Quality Issues

- There are inconsistent data types in the **bed** and **bath** columns, with some values being integers and others being strings.
- There are missing values in the **state** and **zip_code** columns, which could indicate incomplete or inaccurate data.
- There are outliers in the **price** and **house_size** columns, which could indicate errors in data entry or unusual properties.

Overall, the dataset appears to be a collection of real estate listings with various attributes such as price, number of bedrooms and bathrooms, lot size, and location. However, there are several data quality issues that need to be addressed, including missing values, inconsistent data types, and outliers.