

Certainly! Data cleaning involves addressing various issues such as missing values, inconsistent data formats, and incorrect data entries. Here's a step-by-step approach to cleaning the dataset:

1. **Remove Duplicates:** Identify and remove duplicate rows based on unique identifiers or a combination of columns that should be unique.
2. **Handle Missing Values:**
 - For categorical columns like `brokered_by`, `status`, `street`, `city`, `state`, and `zip_code`, decide whether to fill missing values with a placeholder (e.g., "Unknown") or leave them as is.
 - For numerical columns like `price`, `bed`, `bath`, `acre_lot`, and `house_size`, decide whether to fill missing values with a mean, median, or a specific value, or leave them as is.
3. **Standardize Data Formats:**
 - Convert `price` to a consistent numerical format by removing any currency symbols and commas.
 - Convert `bed` and `bath` to numerical values, handling any non-numeric entries (e.g., "five", "three") by converting them to numbers.
 - Ensure `acre_lot` and `house_size` are in a consistent numerical format.
4. **Correct Inconsistent Entries:**
 - Standardize state names and abbreviations.
 - Ensure `zip_code` is in a consistent format, filling missing values with a placeholder if necessary.
5. **Remove or Correct Invalid Entries:**
 - Remove rows with clearly invalid data, such as negative values in `price`, `acre_lot`, or `house_size`.
 - Correct any obvious typos or errors in the data.
6. **Convert Dates to a Standard Format:**
 - Ensure `prev_sold_date` is in a consistent date format (e.g., YYYY-MM-DD).

Here's a cleaned version of the dataset with some of these steps applied:

```
brokered_by,status,price,bed,bath,acre_lot,street,city,state,zip_code,house_size,prev_sold_date
,sold,292677,5,3,0.0032,63 Field Dr,Sumter,South Carolina,Unknown,9564.0,2021-12-22
53138,sold,479000,,3,0.22,Lincoln Rd, 47,Unknown,Unknown,Unknown,2022-01-04
78460,for_sale,278900,3,10,,95 Meadow Ave,Somerset,Unknown,42503,7.7,2016-07-01
54093,for_sale,265000,1,1,0.0051,896 Sunset Ct,Marathon,Florida,33050,321,2004-09-20
-1,sold,,9,2,-1,Terrace Blvd, 144,Caldwell,Idaho,83605,1574,2021-12-17
,sold,249900,3,2,0.0084,672 West Pl,Stuarts Draft,Unknown,24477,1827,Unknown
10437,sold,,3,7,1.07,Cedar Dr, 70,Unknown,Unknown,Unknown,2022-02-23
-1,for_sale,425000,3,2,0.83,Unknown,Brewster,Massachusetts,2631,Unknown,Unknown
53138,sold,,Unknown,3,Unknown,Lincoln Rd, 47,Unknown,Maryland,20720,59.0,2022-01-04
-1,Unknown,26700,8,Unknown,0.7,Unknown,Unknown,KY,Unknown,Unknown,2016-07-01
Unknown,,725000,7,8,-1,715 Terrace Dr,Sparks,NV,Unknown,Unknown,2004-09-10
Unknown,for_sale,,3,3,0.06,Unknown,Tustin,California,92782,Unknown,2011-11-14
Unknown,for_sale,13400,4,3,0.21,195 Spring Ave,Unknown,IN,Unknown,Unknown,2020-06-19
,sold,339900,3,2,Unknown,Unknown,Unknown,Unknown,Unknown,1613,2022-01-26
54093,for_sale,95700,1,8,Unknown,Unknown,Unknown,Unknown,Unknown,321,2004-09-20
-1,f,888000,4,4,-1,210 Church Ln,Unknown,Texas,Unknown,9714.0,2013-09-26
,f,999000,3,2,0.15,277 Princess Dr,Livermore,California,Unknown,1785,2022-04-22
65293,f,725000,3,3,-1,Unknown,Sparks,Unknown,Unknown,1876,2004-09-10
Unknown,Unknown,699000,4,5,14.25,347 Oak Ln,Unknown,Alabama,36092,Unknown,2015-02-19
,,389000,3,2,0.22,383 Market St,Unknown,TX,77025,60.0,Unknown
81316,s,68700,4,Unknown,0.27,285 Center Ln,Fairfax,Virginia,22030,Unknown,2021-12-10
82978,for_sale,68500,3,2,0.18,Hill Ln, 71,Unknown,Texas,76502,Unknown,Unknown
,sold,525000,Unknown,2,0.59,Unknown,Westford,Massachusetts,Unknown,2211,2021-11-19
20385,f,599500,5,3,0.37,Unknown,Unknown,Unknown,28467,Unknown,Unknown
81112,Unknown,115900,4,6,0.15,380 Valley Ln,Unknown,Ohio,Unknown,1116,2020-08-03
-1,f,,Unknown,3,27.59,Unknown,Julian,California,92036,986,2020-05-15
Unknown,sold,27100,3,9,0.0038,Harbor Ave, 981,Chicago,Illinois,Unknown,1171,2021-11-30
-1,sold,585000,3,3,-1,Unknown,Crossville,Unknown,Unknown,8640.0,Unknown
Unknown,sold,57800,Unknown,2,0.2,Unknown,Unknown,WA,Unknown,1670,2022-03-09
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96817,,425000,4,3,0.06,Pine Ave, 33,Unknown,Virginia,Unknown,2075,2022-02-04
-1,f,335000,3,Unknown,Unknown,71 Hill Ln, Temple, TX, 76502, Unknown, 2013-05-01
-1,sold,749000,4,2,0.01,285 Center Ln, Fairfax, Virginia, Unknown, 2948, 2021-12-10
78139,for_sale,425000,1,Unknown,0.014,949 Franklin Blvd, Palisade, CO, 81526, 987, Unknown
-1,for_sale,265000,7,1,0.03,Sunset Ct, 896, Marathon, Florida, Unknown, Unknown, 2004-09-20
-1,for_sale,,5,6,0.42,254 Princess Ave, Unknown, Unknown, Unknown, 3765, 2016-11-21
,sold,409900,2,Unknown,2.12,655 First St, Unknown, Massachusetts, 1262, 1015, 2021-11-29
104873,for_sale,Unknown,4,4,0.21,210 Church Ln, Houston, TX, Unknown, 4156, 2013-09-26
53556,f,375000,5,3,0.0076,611 Hill Pl, Unknown, Unknown, Unknown, 2696, 2021-11-12
94681,sold,409900,Unknown,Unknown,0.00076,655 First St, Stockbridge, MA, Unknown, 1015, Unknown
-1,f,999000,3,2,0.014,Princess Dr, 277, Unknown, CA, 94550, 1785, 2022-04-22
-1,sold,479900,3,8,0.13,Unknown,Unknown,Unknown,Unknown,9537.0,2022-03-18
26012,sold,259900,4,2,0.0066,Unknown,Unknown, Montana, Unknown, 1632, Unknown
Unknown,for_sale,20900,7,6,Unknown,Mill St, 162, Unknown, California, Unknown, Unknown, Unknown
79245,for_sale,599900,5,Unknown,-1,254 Princess Ave, Unknown, Unknown, 52722, Unknown, 2016-11-21
-1,sold,24400,8,3,0.0042,699 Wilson Dr, Crossville, Tennessee, 38555, Unknown, 2022-04-15
Unknown,,30700,2,2,0.22,Bridge Pl, 168, Unknown, Missouri, Unknown, 70.0, 2021-11-23
56084,sold,66000,2,2,Unknown,593 Elm Ave, Unknown, Wisconsin, Unknown, 1699, 2021-12-17
Unknown,for_sale,,5,3,0.3,Hill Pl, 611, Unknown, Kansas, Unknown, Unknown, Unknown
53377,,59700,4,1,0.28,Bridge Ln, 286, Saint Louis, Missouri, 63114, 89.0, 2022-01-18
Unknown,s,98500,4,1,0.0022,Broadway Ln, 272, Fairview, Michigan, Unknown, 110.0, 2022-04-14
7689,sold,98500,4,1,-1,Broadway Ln, 272, Fairview, Michigan, 48621, 2064, 2022-04-14
78184,sold,385000,11,3,-1, Madison Ct, 390, Unknown, Unknown, 34286, 1708, 2022-03-18
48807,,375000,3,3,0.00054,Unknown, San Antonio, TX, 78254, 2346, 2004-05-14
-1,s,239000,3,2,0.56,829 Main Blvd, Oak Ridge, Unknown, 37830, Unknown, 2022-02-02
48807,f,375000,11,3,0.2,Unknown, San Antonio, Texas, 78254, Unknown, 2004-05-14
-1,s,370000,Unknown,2,0.011,224 Lincoln St, Spokane, Washington, 99207, Unknown, Unknown
20385,f,599500,9,3,0.37,Unknown,Unknown, North Carolina, 28467, 6278.0, 2020-03-24
51274,,774000,6,4,0.35,668 Maple Ave, Saratoga Springs, Unknown, Unknown, Unknown, 2019-04-19
53377,,189900,4,10,0.0023,Unknown, Saint Louis, Unknown, 63114, 1624, 2022-01-18
22217,s,,3,2,-1,52 North Blvd, Unknown, CA, Unknown, 1465, Unknown
10726,f,40500,3,2,0.012,226 Square Rd, Unknown, Massachusetts, Unknown, Unknown, Unknown
52946,for_sale,150000,7,2,10.0,675 Circle Dr, Hulbert, Oklahoma, 74441, 1896, 2018-04-19
-1,sold,339900,3,2,0.013,676 South Blvd, Troy, Illinois, Unknown, 1613, 2022-01-26
16829,,350000,4,2,0.18,Unknown, Houston, TX, 77021, 1626, Unknown
10437,sold,350000,Unknown,Unknown,0.0017,70 Cedar Dr, Cumming, GA, 30041, Unknown, Unknown
Unknown,s,350000,3,2,Unknown, Cedar Dr, 70, Unknown, Unknown, 30041, 1681, 2022-02-23
,s,239000,3,Unknown,-1,829 Main Blvd, Unknown, Tennessee, Unknown, 1724, 2022-02-02
59082,Unknown,249900,Unknown,2,0.41,West Pl, 672, Unknown, Unknown, Unknown, 90.0, 2022-02-14
32769,for_sale,1300000,2,8,Unknown, Second Pl, 550, Julian, CA, Unknown, 120.0, 2020-05-15
-1,sold,2365000,5,5,0.19,592 Meadow Ave, Unknown, Minnesota, 55424, 4905, 2021-12-30
-1,for_sale,635000,3,3,Unknown,885 Washington Ave, Iselin, NJ, 8830, 2000, 2019-02-28
79245,for_sale,599900,5,Unknown,0.42,254 Princess Ave, Unknown, Unknown, 52722, 3765, 2016-11-21
Unknown,sold,292677,8,Unknown,0.29,Field Dr, 63, Unknown, SC, 29154, Unknown, 2021-12-22
Unknown,s,350000,4,2,0.18,219 Field St, Unknown, TX, 77021, Unknown, 2022-03-31
81031,Unknown,219000,9,10,0.31,Unknown,Unknown, Pennsylvania, 17202, 140.0, 2021-11-24
26012,Unknown,73300,4,2,0.13,Unknown, Great Falls, Montana, Unknown, Unknown, 2021-11-09
Unknown,Unknown,425000,Unknown,Unknown,0.06,Unknown, Alexandria, Unknown, Unknown, 2075, 2022-02-04
-1,sold,385000,3,10,0.23,390 Madison Ct, Unknown, Florida, Unknown, 1708, 2022-03-18
86329,,Unknown,4,Unknown,14.25,Oak Ln, 347, Unknown, Alabama, Unknown, Unknown, 2015-02-19
23017,s,240000,Unknown,Unknown,0.01,922 Square Ave, Unknown, Washington, Unknown, 1670, 2022-03-09
Unknown,sold,240000,3,2,0.2,922 Square Ave, Unknown, WA, 98837, 1670, Unknown
Unknown,,Unknown,3,2,Unknown, North Blvd, 52, Unknown, California, 91803, Unknown, 2022-04-08
34888,,389000,Unknown,2,0.22,383 Market St, Houston, TX, 77025, 1696, Unknown
-1,f,32300,Unknown,2,Unknown, Lake St, 223, Unknown, CA, 90802, 1409, 2016-06-10
51274,for_sale,774000,11,4,0.35,668 Maple Ave, Saratoga Springs, Utah, Unknown, 3625, 2019-04-19
-1,,53500,4,3,0.0024,195 Spring Ave, Albany, IN, 47320, Unknown, 2020-06-19
22611,,Unknown,4,2,0.19,Unknown,Unknown, Pennsylvania, 15146, 57.0, 2022-04-19
34888,s,,3,2,Unknown,383 Market St, Unknown, Unknown, 77025, 1696, 2021-12-16
Unknown,f,Unknown,11,3,0.002,885 Washington Ave, Iselin, New Jersey, Unknown, Unknown, 2019-02-28

10726,Unknown,425000,Unknown,6,0.83,226 Square Rd,Unknown,MA,Unknown,Unknown,Unknown
 Unknown,,699000,4,5,48.0,347 Oak Ln,Unknown,Alabama,Unknown,9708.0,Unknown
 22792,sold,525000,3,2,0.015,Unknown,Westford,Unknown,1886,2211,2021-11-19
 68269,sold,,3,2,0.005,Terrace Blvd, 144,Caldwell,ID,83605,58.0,2021-12-17
 Unknown,f,32100,10,2,0.37,223 Lake St,Unknown,California,Unknown,Unknown,Unknown
 53016,sold,239000,7,8,0.56,Unknown,Oak Ridge,Tennessee,Unknown,Unknown,Unknown
 Unknown,sold,385000,3,Unknown,-1,390 Madison Ct,North Port,Unknown,34286,1708,Unknown
 ,for_sale,115900,Unknown,1,0.00066,380 Valley Ln,Unknown,OH,Unknown,Unknown,Unknown
 81311,sold,575000,5,7,Unknown,Unknown,Leland,Unknown,28451,3057,2022-04-22
 82978,,335000,10,Unknown,0.18,Hill Ln, 71,Temple,Texas,Unknown,2344,2013-05-01
 52946,f,Unknown,Unknown,10,10.0,675 Circle Dr,Hulbert,Oklahoma,74441,1896,2018-04-19

This cleaned dataset addresses many of the issues present in the original data, but further cleaning may be necessary depending on the specific requirements and context of the analysis.