## import pandas as pd

```
data = """brokered_by;status;price;bed;bath;acre_lot;street;city;state;zip_code;house_size;prev_sold_date
26012; sold; 259900; 4; 2; 0.13; 391 Bridge Rd; Great Falls; Montana; 59405; 1632; 2021-11-09
97679;sold;440000;3;3;0.07;82 Lincoln Ave; Charlotte; North Carolina;28210;2053;2022-03-07
59082; sold; 249900; 3; 2; 0.41; 672 West Pl; Stuarts Draft; Virginia; 24477; 1827; 2022-02-14
969817; sold; 42500; 3; 2; 0.6; 333 Pine Ave; Alessandria; irginia; 22209; 20075; 2022-2-3
687;sold;355000;3;2;0.19;272 Terrace Ln;Orlando;Florida;32828;1864;2021-12-08
...""" # Rest of your data goes here
df = pd.read_csv(pd.compat.StringIO(data), sep=';')
# Deduplicate based on all columns
deduped_df = df.drop_duplicates()
# If you want to deduplicate based on a subset of columns, specify them:
# For example, to deduplicate based on street, city, state, and zip_code:
# deduped_df = df.drop_duplicates(subset=['street', 'city', 'state', 'zip_code'])
print(deduped_df)
# Save the deduplicated data to a new CSV file
deduped df.to csv('deduped data.csv', index=False, sep=';')
```

## **Explanation:**

- 1. **Import pandas:** We use the pandas library for data manipulation.
- 2. Read the data: The pd.read\_csv function reads the data from the string (you can replace pd.compat.StringIO(data) with the actual file path if you're reading from a file). The sep=';' argument specifies that the semicolon is the delimiter
- 3. **Deduplicate:** The drop\_duplicates() method removes duplicate rows. By default, it considers all columns.
- 4. Subset (Optional): If you only want to deduplicate based on certain columns, use the subset argument and provide a list of column names. This is useful if, for example, slight variations in other fields (like price or prev\_sold\_date) shouldn't prevent deduplication.
- 5. **Print and Save:** The code prints the deduplicated DataFrame and saves it to a new CSV file named deduped\_data.csv using the same semicolon delimiter.

## Key Improvements over simply using df.drop\_duplicates():

- Handles data input: The code now correctly reads the provided data string.
- Flexibility: It shows how to deduplicate based on all columns or a selected subset.
- Output: It saves the cleaned data to a new file, which is essential for most real-world applications.
- Clearer explanation: The comments explain each step and the purpose of the subset argument.

This improved code provides a more robust and practical solution for data deduplication. Remember to replace the placeholder data string with your actual data or filepath.