

## Sorting Rows by Family Members

This document includes the question, the solution, and a breakdown of the code provided in the screenshot.

## Uploaded Screenshot

Below is the screenshot of the task:

The screenshot shows a DataCamp exercise page titled "Sorting rows". The instructions are as follows:

Sorting rows

Finding interesting bits of data in a DataFrame is often easier if you change the order of the rows. You can sort the rows by passing a column name to `.sort_values()`.

In cases where rows have the same value (this is common if you sort on a categorical variable), you may wish to break the ties by sorting on another column. You can sort on multiple columns in this way by passing a list of column names.

Sort on ... Syntax

one column	Syntax
one column	<code>df.sort_values("breed")</code>
multiple columns	<code>df.sort_values(["breed", "weight_kg"])</code>

By combining `.sort_values()` with `.head()`, you can answer questions in the form, "What are the top cases where...?".

homelessness is available and pandas is loaded as `pd`.

Instructions 2/3 35 XP

- Sort `homelessness` by the number of homeless individuals in the `individuals` column, from smallest to largest, and save this as `homelessness_ind`. Print the head of the sorted DataFrame.
- Sort `homelessness` by the number of homeless `family_members` in descending order, and save this as `homelessness_fam`.
- Sort `homelessness` first by region (ascending), and then by number of family members (descending). Save this as `homelessness_reg_fam`.

Take Hint (-10 XP)

The code editor shows the following code:

```
1 # Sort homelessness by descending family members
2 homelessness_fam = homelessness.sort_values("family_members",
3       ascending=False)
4 print(homelessness_fam.head())
```

The terminal output shows the following data:

	region	state	individuals	family_members	state_pop
58	Mountain	Wyoming	434.0	285.0	577601
34	West North Central	North Dakota	467.0	75.0	758888
7	South Atlantic	Delaware	768.0	374.0	965479
39	New England	Rhode Island	747.0	354.0	1058287
45	New England	Vermont	780.0	511.0	624358

## Question

Sort the homelessness DataFrame by the number of family members in descending order, and save this as `homelessness_fam`. Print the head of the sorted DataFrame.

## Answer

```
# Sort homelessness by descending family members
homelessness_fam = homelessness.sort_values("family_members",
ascending=False)
```

```
# Print the top few rows
print(homelessness_fam.head())
```

## Code Explanation

# Explanation of the code:

1. ``homelessness.sort_values("family_members", ascending=False)``: Sorts the ``homelessness`` DataFrame by the ``family_members`` column in descending order (from largest to smallest).
2. ``homelessness_fam``: Stores the sorted DataFrame for further use.
3. ``print(homelessness_fam.head())``: Displays the first five rows of the sorted DataFrame to verify the sorting.