

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 for '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 output of the script is displayed as a table:

	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.