

Inspecting a DataFrame - Column Information

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 web-based learning interface for a course on Data Manipulation with pandas. The exercise is titled "Inspecting a DataFrame". The instructions state that when you get a new DataFrame, you should explore it and see what it contains. Several methods are listed: `.head()` for the first few rows, `.info()` for column information, `.shape` for row and column counts, and `.describe()` for summary statistics. The `homelessness` DataFrame is described as containing estimates of homelessness in each U.S. state in 2018, with columns for `region`, `state`, `individuals`, `family_members`, and `state_pop`. The task instruction is to "Print information about the column types and missing values in `homelessness`".

The code editor shows the following code:

```
1 # Print the head of the homelessness data
2 print(homelessness.head())
3
4 # Print information about homelessness
5 print(_____)
```

The output of the code is displayed in the IPython Shell:

```
<script.py> output:
   region      state  individuals  family_members  state_pop
0  East South Central  Alabama      2578.0           864.0    4887681
1      Pacific      Alaska      1434.0           582.0     735139
2      Mountain    Arizona      7259.0          2686.0    7158024
3  West South Central  Arkansas      2280.0           432.0    3809733
4      Pacific  California    109008.0         28964.0   39461588
```

Question

Print information about the column types and missing values in `homelessness`.

Answer

```
# Print the head of the homelessness data
print(homelessness.head())
```

```
# Print information about homelessness
print(homelessness.info())
```

Code Explanation

Explanation of the code:

1. `print(homelessness.head())`: This prints the first five rows of the `homelessness` DataFrame for a quick preview.

2. ``print(homelessness.info())`` : This provides detailed information about the DataFrame, including:

- The data types of each column.
- The number of non-missing (non-null) values in each column.
- The memory usage of the DataFrame.