

Phillips Curve using merge_ordered()

The screenshot shows a web browser window with the URL `campus.datacamp.com/courses/joining-data-with-pandas/merging-ordered-and-time-series-data?ex=3`. The page is titled "Exercise" and "Phillips curve using merge_ordered()". It contains instructions for merging two dataframes, `inflation` and `unemployment`, using `merge_ordered()` with an inner join on the 'date' column. The instructions also mention creating a scatter plot of `unemployment_rate` vs `cpi` of `inflation_unemploy`. The code editor shows the following script:

```
1 # Use merge_ordered() to merge inflation, unemployment with inner join
2 inflation_unemploy = ____
3
4 # Print inflation_unemploy
5 ____
6
7 # Plot a scatter plot of unemployment_rate vs cpi of inflation_unemploy
8 inflation_unemploy.plot(____)
9 plt.show()
```

The Python Shell shows the prompt `In [1]:`.

Question:

Use `merge_ordered()` to merge the `inflation` and `unemployment` tables on `date` with an inner join, and save the results as `inflation_unemploy`. Print the `inflation_unemploy` dataframe. Using `inflation_unemploy`, create a scatter plot with `unemployment_rate` on the horizontal axis and `cpi` (inflation) on the vertical axis.

Answer:

```
# Use merge_ordered() to merge inflation and unemployment with an inner join
```

```
inflation_unemploy = pd.merge_ordered(
    inflation, unemployment,
    on='date',
    how='inner'
)
```

```
# Print the inflation_unemploy dataframe
print(inflation_unemploy)
```

```
# Plot a scatter plot of unemployment_rate vs cpi of inflation_unemploy
inflation_unemploy.plot(
    kind='scatter',
    x='unemployment_rate',
```

```
y='cpi',  
title='Phillips Curve'  
)  
plt.show()
```

Code Explanation:

1. `inflation_unemploy = pd.merge_ordered(...)`:

This line merges the inflation and unemployment dataframes using the 'merge_ordered' function. The 'on' parameter specifies the column to merge on ('date'), and the 'how' parameter is set to 'inner' to include only rows with matching dates in both tables.

2. `print(inflation_unemploy)`:

This line prints the merged dataframe, `inflation_unemploy`, which contains data from both inflation and unemployment tables for matching dates.

3. `inflation_unemploy.plot(...)`:

This line creates a scatter plot with 'unemployment_rate' on the x-axis and 'cpi' on the y-axis. The 'title' parameter is used to add a title to the plot.

4. `plt.show()`:

This line displays the plot.