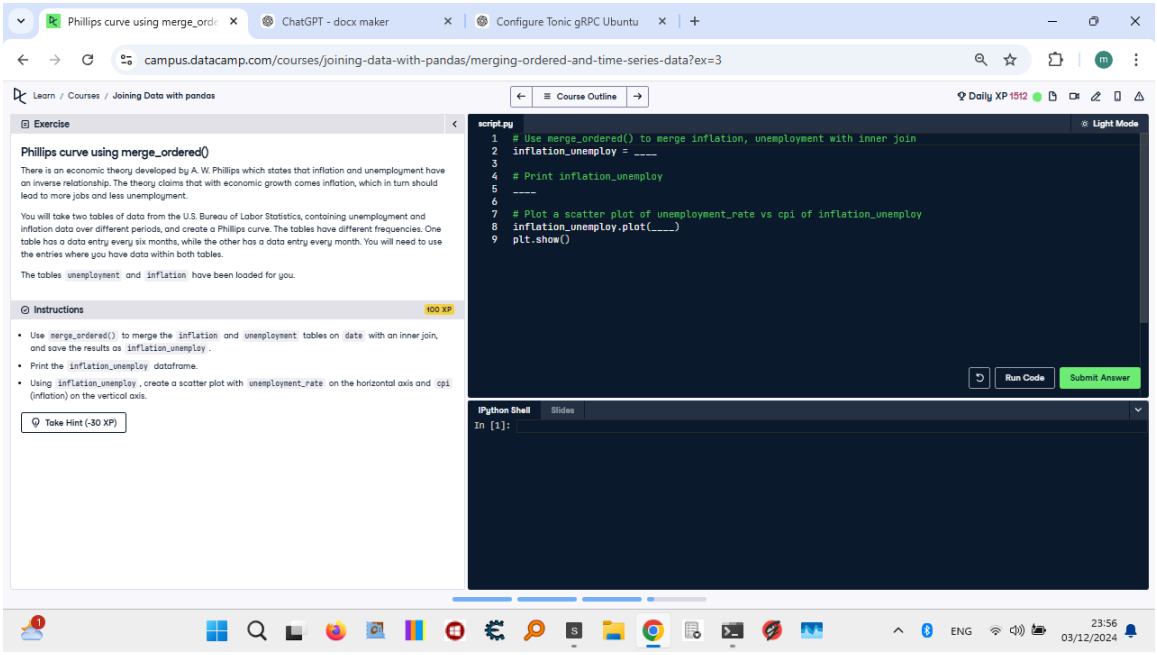
Phillips Curve using merge_ordered()



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.