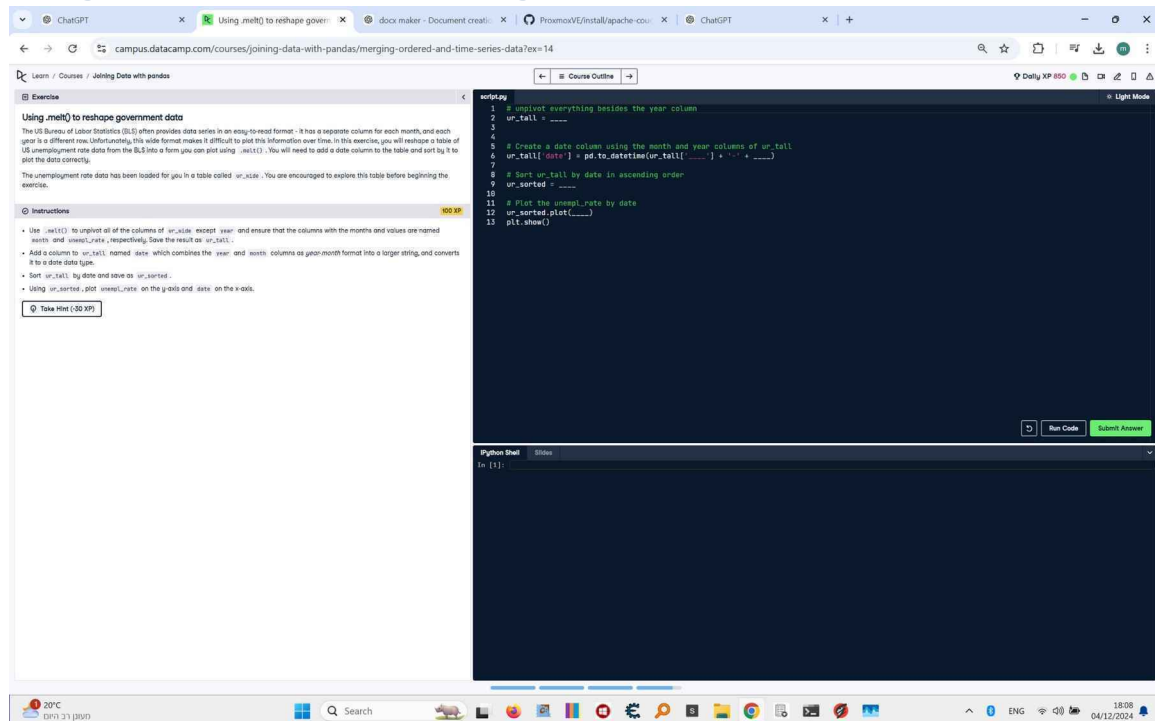


Using .melt() to reshape government data - Corrected



The screenshot shows a web browser window displaying a DataCamp exercise. The exercise title is "Using .melt() to reshape government data". The instructions describe a task to reshape US unemployment rate data from a wide format to a long format using pandas. The code editor shows a script that un pivots the 'ur_wide' dataset, creates a 'date' column, sorts the data, and plots the 'unempl_rate' over time. The Python Shell shows the output of the script, which is an empty list '[]'.

```
1 # Unpivot everything besides the year column
2 ur_tall = ur_wide.melt(
3     id_vars=['year'],
4     var_name='month',
5     value_name='unempl_rate'
6 )
7
8 # Create a date column using the month and year columns of ur_tall
9 ur_tall['date'] = pd.to_datetime(ur_tall['year'] + '-' + ur_tall['month'])
10
11 # Sort ur_tall by date in ascending order
12 ur_sorted = ur_tall.sort_values('date')
13
14 # Plot the unempl_rate by date
15 ur_sorted.plot(x='date', y='unempl_rate', style='line')
```

Question:

The US Bureau of Labor Statistics (BLS) often provides data series in an easy-to-read format. In this exercise, you will reshape a table of US unemployment rate data from the BLS into a format you can plot using .melt(). You will need to:

1. Unpivot all of the columns of ur_wide except 'year'. Ensure that the columns with the months and values are named 'month' and 'unempl_rate', respectively. Save the result as ur_tall.
2. Add a column to ur_tall named 'date', which combines the 'month' and 'year' columns into a datetime format.
3. Sort ur_tall by date and save as ur_sorted.
4. Plot 'unempl_rate' on the y-axis and 'date' on the x-axis.

Answer:

```
# Unpivot everything besides the year column
```

```
ur_tall = ur_wide.melt(
    id_vars=['year'],
    var_name='month',
    value_name='unempl_rate'
)
```

```
# Create a date column using the month and year columns of ur_tall
```

```
ur_tall['date'] = pd.to_datetime(
    ur_tall['month'] + '-' + ur_tall['year']
)

# Sort ur_tall by date in ascending order
ur_sorted = ur_tall.sort_values('date')

# Plot the unempl_rate by date
ur_sorted.plot(
    x='date',
    y='unempl_rate'
)
plt.show()
```