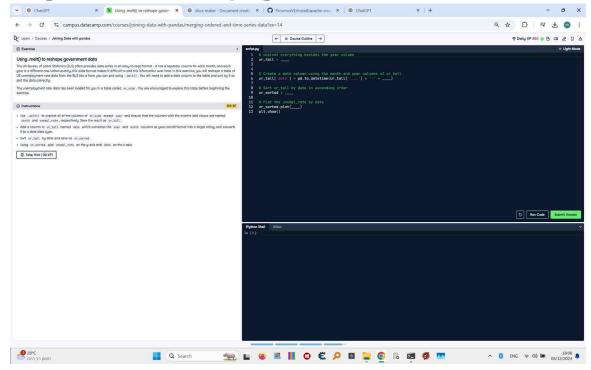
## Using .melt() to reshape government data - Corrected



## **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()
```