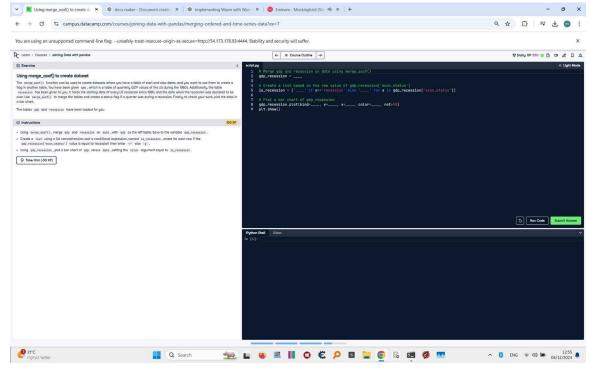
Using merge_asof() to create dataset - Corrected



Question:

Using merge_asof(), merge gdp and recession on date, with gdp as the left table. Save to the variable gdp_recession. Create a list using a list comprehension and a conditional expression, named is_recession, where for each row if the gdp_recession['econ_status'] value is equal to 'recession' then enter 'r' else 'g'. Using gdp_recession, plot a bar chart of gdp versus date, setting the color argument equal to is_recession.

Answer:

```
# Merge gdp and recession on date using merge_asof
gdp_recession = pd.merge_asof(
    gdp, recession,
    on='date'
)

# Create a list based on the row value of gdp_recession['econ_status']
is_recession = [
    'r' if s == 'recession' else 'g'
    for s in gdp_recession['econ_status']
]

# Plot a bar chart of gdp_recession
```

```
gdp_recession.plot(
    kind='bar',
    x='date',
    y='gdp',
    color=is_recession,
    rot=90
)
plt.show()
```

Code Explanation:

1. gdp recession = pd.merge asof(...):

This line merges the gdp and recession dataframes on the 'date' column using the 'merge_asof' function. The 'gdp' dataframe is set as the left table, aligning rows based on the nearest previous date.

2. is recession = [...]:

This line creates a list comprehension that iterates through each value in the 'econ_status' column of the gdp_recession dataframe. If the value is 'recession', 'r' is added to the list; otherwise, 'g' is added.

3. gdp recession.plot(...):

This line creates a bar chart of the 'gdp' values versus 'date' from the gdp_recession dataframe. The 'color' argument is set to the is_recession list, coloring the bars red ('r') or green ('g') based on the economic status.