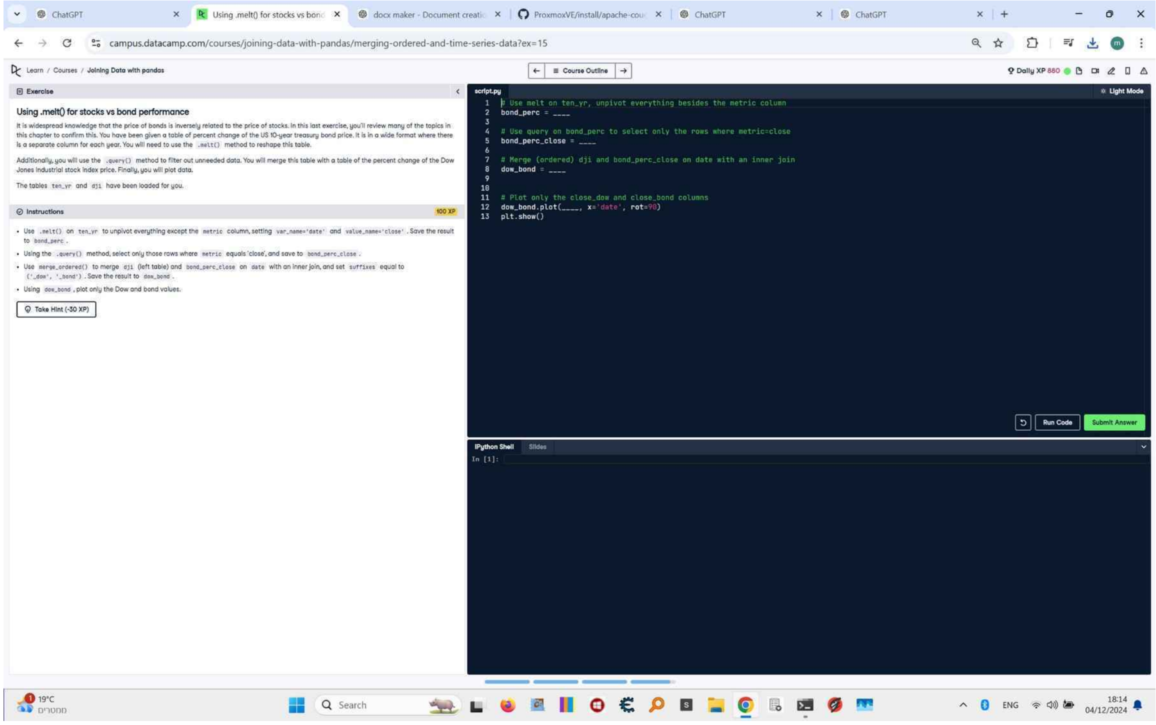
Using .melt() for stocks vs bond performance - Corrected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Using .melt() for stocks vs bond performance

It is widespread knowledge that the price of bonds is inversely related to the price of stocks. In this last exercise, you'll review many of the topics in this chapter to confirm this. You have been given a table of percent change of the US 10-year treasury bond price. It is in a wide format where there is a separate column for each year. You will need to use the `.melt()` method to reshape this table.

Additionally, you will use the `.query()` method to filter out unneeded data. You will merge this table with a table of the percent change of the Dow Jones Industrial stock index price. Finally, you will plot data.

The tables `ten_yr` and `dji` have been loaded for you.

- Use `.melt()` on `ten_yr` to unpivot everything except the `metric` column, setting `var_name='date'` and `value_name='close'`. Save the result to `bond_perc`.
- Using the `.query()` method, select only those rows where `metric` equals 'close', and save to `bond_perc_close`.
- Use `merge_ordered()` to merge `dji` (left table) and `bond_perc_close` on `date` with an inner join, and set `suffixes` equal to `('_dow', '_bond')`. Save the result to `dow_bond`.
- Using `dow_bond`, plot only the Dow and bond values.

```
# Use melt on ten_yr, unpivot everything besides the metric column
bond_perc = ____

# Use query on bond_perc to select only the rows where metric=close
bond_perc_close = ____

# Merge (ordered) dji and bond_perc_close on date with an inner join
dow_bond = ____


# Plot only the close_dow and close_bond columns
dow_bond.plot(____, x='date', rot=90)
plt.show()
```

Question:

It is widely acknowledged that the price of bonds is inversely related to the price of stocks. In this exercise, you'll review many of the topics in this chapter to confirm this. You have been given a table of percent changes of the US 10-year treasury bond price. It is in a wide format where there is a separate column for each metric. You will need to use the .melt() method to reshape this table, filter rows using .query(), and merge it with a table of the percent change of the Dow Jones Industrial stock index price. Finally, you will plot the data.

Answer:

```
# Use melt on ten_yr, unpivot everything besides the metric column
bond_perc = ten_yr.melt(
    id_vars='metric',
    var_name='date',
    value_name='close'
)

# Use query on bond_perc to select only the rows where metric=close
bond_perc_close = bond_perc.query('metric == "close"')
```

```
# Merge (ordered) dji and bond_perc_close on date with an inner join
dow_bond = pd.merge_ordered(
    dji, bond_perc_close,
    on='date',
    suffixes=('_dow', '_bond'),
    how='inner'  # Make sure to specify the join type
)

# Plot only the close_dow and close_bond columns
dow_bond.plot(
    y=['close_dow', 'close_bond'],
    x='date',
    rot=90
)
plt.show()
```