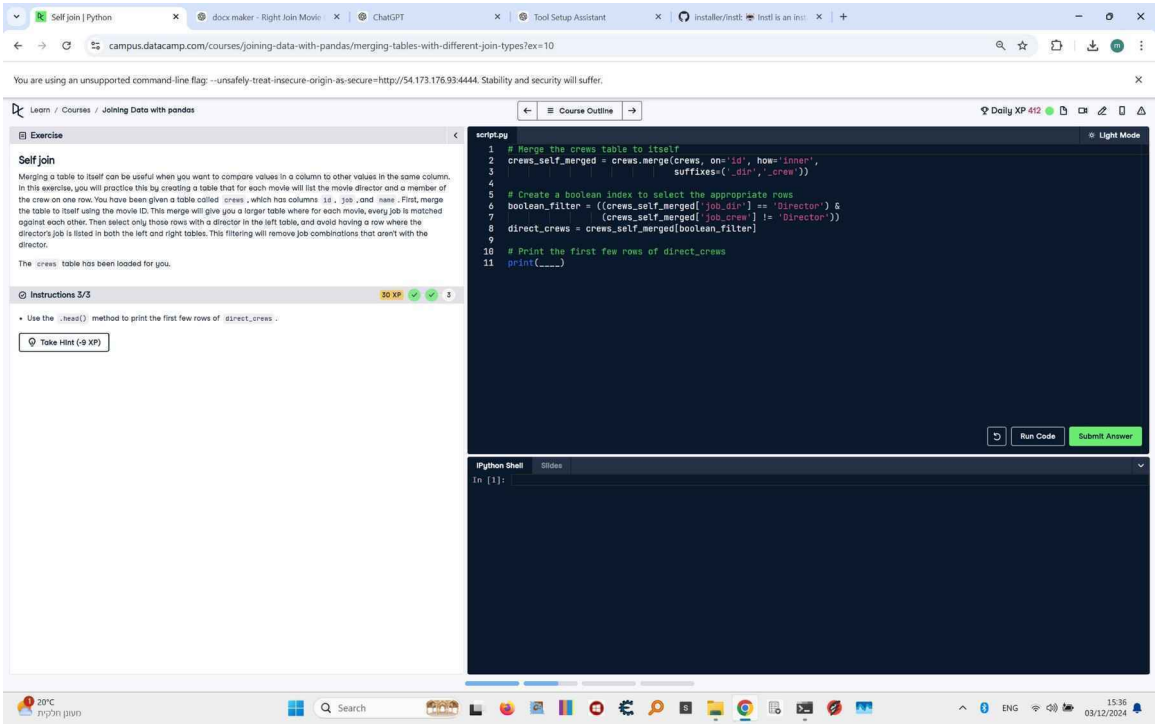
Self Join - Updated Solution with Print Output



Screenshot showing the exercise context for performing a self join on the crews table.

Code Answer:

```
# Merge the crews table to itself
crews_self_merged = crews.merge(crews, on='id', how='inner',
                                suffixes=('_dir','_crew'))

# Create a Boolean index to select the appropriate rows
boolean_filter = ((crews_self_merged['job_dir'] == 'Director') &
                  (crews_self_merged['job_crew'] != 'Director'))
direct_crews = crews_self_merged[boolean_filter]

# Print the first few rows of direct_crews
print(direct_crews.head())
```

Explanation:

1. The `merge` function performs a self join on the 'crews' table by joining it to itself using the 'id' column. The `how='inner'` parameter ensures that only rows with matching 'id' values in both tables are included. The

`suffixes=('_dir', '_crew')` parameter is used to distinguish between columns from the left and right tables, representing directors and crew members respectively.

2. A Boolean filter is created to select rows where the 'job_dir' column is 'Director' and the 'job_crew' column is not 'Director'. This ensures that only valid combinations of directors and crew members are included.

3. The resulting DataFrame is filtered using the Boolean index to produce 'direct_crews', which contains the desired pairs of directors and their corresponding crew members.

4. Finally, the `head()` method is used to print the first few rows of the 'direct_crews' DataFrame, allowing verification of the result.