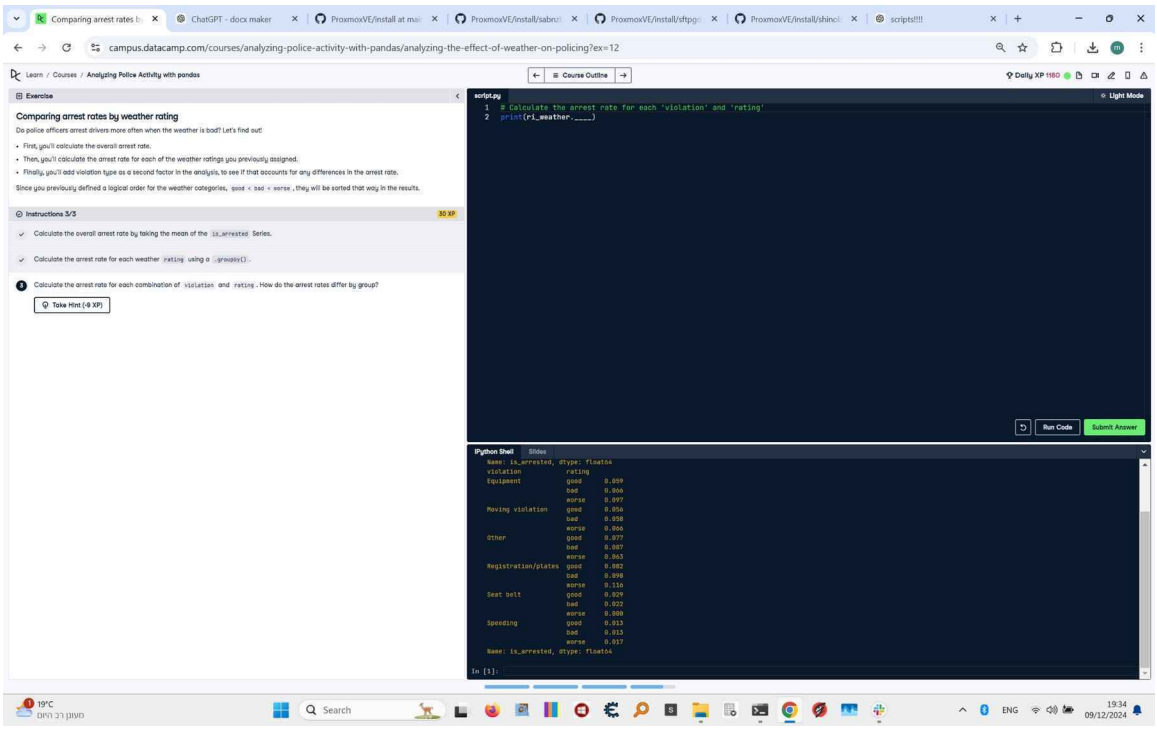
Comparing Arrest Rates by Violation and Weather Rating



Question

Do police officers arrest drivers more often when the weather is bad? Let's find out!
1. First, you'll calculate the overall arrest rate.
2. Then, you'll calculate the arrest rate for each of the weather ratings group you previously assigned.
3. Finally, you'll calculate the arrest rate for each combination of violation and rating. How do the arrest rates differ by group?

Solution

```
# Import pandas library

import pandas as pd


# Calculate the arrest rate for each combination of violation and rating

arrest_rate_by_violation_and_rating = ri_weather.groupby(['violation', 'rating']).is_arrested.mean()
print(arrest_rate_by_violation_and_rating)
```

Explanation

1. The first step imports pandas for data manipulation.
2. We use groupby() to group the data by both 'violation' and 'rating'.
3. The mean of 'is_arrested' is calculated for each group, providing insights into how arrest rates differ across combinations of violation type and weather rating.