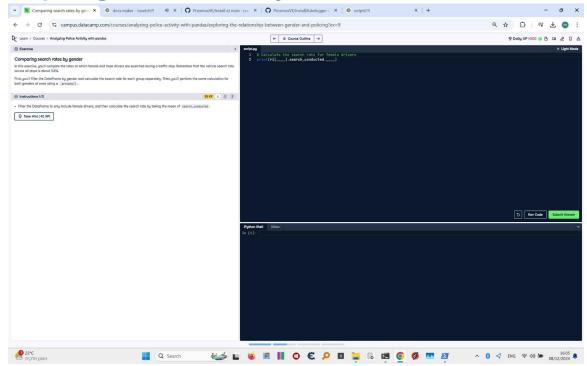
## **Comparing Search Rates by Gender**



## **Task Description**

- 1. Filter the DataFrame to only include female drivers, and then calculate the search rate by taking the mean of 'search conducted'.
- 2. Filter the DataFrame to only include male drivers, and calculate the search rate similarly.
- 3. Use .groupby() to calculate the search rates for both genders in one step.

## **Code Solution**

```
# Calculate the search rate for female drivers
female_search_rate = ri[ri['driver_gender'] == 'F']
['search_conducted'].mean()
print(female_search_rate)
```

```
# Calculate the search rate for male drivers
male_search_rate = ri[ri['driver_gender'] == 'M']
['search_conducted'].mean()
print(male search rate)
```

```
# Calculate search rates for both genders using groupby
gender_search_rate = ri.groupby('driver_gender')
['search_conducted'].mean()
print(gender_search_rate)
```

## **Code Explanation**

- 1. The line 'female\_search\_rate =  $ri[ri['driver\_gender'] == 'F']$  ['search\_conducted'].mean()' filters the DataFrame to include only female drivers and calculates the mean of the 'search\_conducted' column, which represents the search rate for female drivers.
- 2. The line 'male\_search\_rate = ri[ri['driver\_gender'] == 'M'] ['search\_conducted'].mean()' filters the DataFrame to include only male drivers and calculates the mean of the 'search\_conducted' column, representing the search rate for male drivers.
- 3. The line 'gender\_search\_rate = ri.groupby('driver\_gender') ['search\_conducted'].mean()' groups the data by 'driver\_gender' and calculates the mean of 'search\_conducted' for each group (male and female), allowing for a concise calculation of search rates for both genders.