

Comparing Search Rates by Gender (Part 3)

The screenshot shows a web browser window with the URL `campus.datacamp.com/courses/analyzing-police-activity-with-pandas/exploring-the-relationship-between-gender-and-policing?ex=9`. The page is titled 'Comparing search rates by gender' and contains instructions for an exercise. The instructions state: 'In this exercise, you'll compare the rates at which female and male drivers are searched during a traffic stop. Remember that the vehicle search rate across all stops is about 3.8%.' and 'First, you'll filter the DataFrame by gender and calculate the search rate for each group separately. Then, you'll perform the same calculation for both genders at once using a `.groupby()`.' Below the instructions, there is a 'Take hint (+ 5P)' button. On the right side, there is a code editor with the following code:

```
1 # Calculate the search rate for both groups simultaneously
2 print(ri.groupby('driver_gender')['search_conducted'].mean())
```

Below the code editor, there is a 'Python Shell' section with the output:

```
script.py> output
1. 0.038071036687
2. 1.]
```

Task Description

1. Group by driver gender to calculate the search rate for both groups simultaneously.
2. Verify that the result matches the previously calculated individual rates.

Code Solution

```
# Calculate the search rate for both groups simultaneously
gender_search_rate = ri.groupby('driver_gender')
['search_conducted'].mean()
print(gender_search_rate)
```

Code Explanation

1. The line `'gender_search_rate = ri.groupby('driver_gender')['search_conducted'].mean()'` groups the DataFrame by the 'driver_gender' column and calculates the mean of 'search_conducted' for each group. This provides the search rate for both male and female drivers in one step.
2. The line `'print(gender_search_rate)'` outputs the calculated search rates to verify that they match the previously calculated rates for each gender.