

# Driving Right (1) in Python

The screenshot shows a web browser window with a DataCamp exercise titled "Driving right (1)". The exercise instructions on the left state: "Remember that cars dataset, containing the cars per 1000 people (cars\_per\_cap) and whether people drive right (drives\_right) for different countries (country). The code that imports this data in CSV format into Python as a DataFrame is included in the script." It also mentions a video approach to filtering observations. The instructions list three steps: 1. Extract the drives\_right column as a Pandas Series and store it as dr. 2. Use dr, a boolean Series, to subset the cars DataFrame. Store the resulting selection in sel. 3. Print sel, and assert that drives\_right is True for all observations. A "Take Hint (-30 XP)" button is present. The right panel shows a code editor with the following Python code:

```
1 # Import cars data
2 import pandas as pd
3 cars = pd.read_csv('cars.csv', index_col = 0)
4
5 # Extract drives_right column as Series: dr
6
7
8 # Use dr to subset cars: sel
9
10
11 # Print sel
12
```

Below the code editor is a "Python Shell" with "In [1]:". The bottom of the browser window shows a Windows taskbar with various icons and the date 20/11/2024.

**\*\*Question:\*\***

Remember that `cars` dataset contains the cars per 1000 people (`cars\_per\_cap`) and whether people drive right (`drives\_right`) for different countries (`country`). The code that imports this data in CSV format into Python as a DataFrame is included in the script.

1. Extract the `drives\_right` column as a Pandas Series and store it as `dr`.
2. Use `dr`, a boolean Series, to subset the `cars` DataFrame. Store the resulting selection in `sel`.
3. Print `sel`, and assert that `drives\_right` is `True` for all observations.

**\*\*Answer:\*\***

Here is the Python code that solves the problem:

```
# Import cars data
import pandas as pd
```

```
# Read the dataset
cars = pd.read_csv('cars.csv', index_col=0)
```

```
# Extract drives_right column as Series: dr
```

```
dr = cars['drives_right']
```

```
# Use dr to subset cars: sel  
sel = cars[dr]
```

```
# Print sel  
print(sel)
```

**\*\*Explanation:\*\***

1. **\*\*Import Pandas\*\***: The Pandas library is imported to handle tabular data in a DataFrame.
2. **\*\*Read the dataset\*\***: The `pd.read_csv()` function reads the dataset from a CSV file into a Pandas DataFrame. The `index_col=0` parameter sets the first column as the index.
3. **\*\*Extract 'drives\_right' column\*\***: The `'drives_right'` column is extracted as a Pandas Series and stored in `dr`.
4. **\*\*Subset the DataFrame\*\***: The `cars[dr]` expression uses the boolean Series `dr` to filter the rows of the DataFrame where `'drives_right'` is `True`. The result is stored in `sel`.
5. **\*\*Print the result\*\***: The `print(sel)` statement displays the subsetted DataFrame.