

## Rotating X-Tick Labels

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Daily XP 1280

Exercise

### Rotating x-tick labels

In this exercise, we'll continue looking at the miles per gallon dataset. In the code provided, we create a point plot that displays the average acceleration for cars in each of the three places of origin. Note that the "acceleration" variable is the time to accelerate from 0 to 60 miles per hour, in seconds. Higher values indicate slower acceleration.

Let's use this plot to practice rotating the x-tick labels. Recall that the function to rotate x-tick labels is a standalone Matplotlib function and not a function applied to the plot object itself.

We've already imported Seaborn as `sns` and `matplotlib.pyplot` as `plt`.

Instructions 100 XP

- Rotate the x-tick labels 90 degrees.

Take Hint (-30 XP)

script.py

```
1 # Create point plot
2 sns.catplot(x="origin",
3             y="acceleration",
4             data=mpg,
5             kind="point",
6             join=False,
7             capsize=0.1)
8
9 # Rotate x-tick labels
10
11
12 # Show plot
13 plt.show()
```

Run Code

Submit Answer

IPython Shell

Slides

In [1]:

Figure 1: Screenshot showing the task to rotate x-tick labels for a point plot.

### Question

We continue looking at the miles per gallon dataset. This exercise involves creating a point plot to display the average acceleration for cars in each of the three places of origin. The acceleration variable measures the time it takes for a car to accelerate from 0 to 60 miles per hour, in seconds. The

task is to rotate the x-tick labels 90 degrees to improve readability.

### Question Explanation

Point plots are useful for visualizing averages with confidence intervals. However, x-tick labels may overlap or be hard to read when categories are displayed horizontally. The Matplotlib function `plt.xticks()` can be used to rotate these labels, enhancing clarity and readability.

### Code Solution

```
# Create point plot
sns.catplot(x="origin", y="acceleration",
            data=mpg, kind="point",
            join=False, capsize=0.1)

# Rotate x-tick labels
plt.xticks(rotation=90)

# Show plot
plt.show()
```

### Answer Explanation

1. `sns.catplot(...)`: Creates a point plot with 'origin' on the x-axis and 'acceleration' on the y-axis, displaying averages with confidence intervals. The 'join=False' argument removes lines connecting points, and 'capsize=0.1' adds small caps to the error bars.
2. `plt.xticks(rotation=90)`: Rotates the x-tick labels 90 degrees for better readability.
3. `plt.show()`: Displays the resulting plot with the rotated x-tick labels.