Exercise

Plotting subgroups in line plots

Let's continue to look at the `mpg` dataset. We've seen that the average miles per gallon for cars has increased over time, but how has the average horsepower for cars changed over time? And does this trend differ by country of origin?

⊘ Instructions 1/3   35 XP   ① ② ③

- Use `relplot()` and the `mpg` DataFrame to create a line plot with `"model_year"` on the x-axis and `"horsepower"` on the y-axis. Turn off the confidence intervals on the plot.

⍾ Take Hint (-10 XP)

script.py   ☀ Light Mode

```
1   # Import Matplotlib and Seaborn
2   import matplotlib.pyplot as plt
3   import seaborn as sns
4
5   # Create line plot of model year vs. horsepower
6
7
8
9
10  # Show plot
11  plt.show()
```

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IPython Shell   Slides
In [1]:

Plotting Subgroups in Line Plots

Use relplot() and the mpg DataFrame to create a line plot with 'model_year' on the x-axis and 'horsepower' on the y-axis. Turn off the confidence intervals on the plot.

Full Answer

To create a line plot without confidence intervals, set the parameter 'ci' to 'None'. Below is the working code:

```python
import seaborn as sns
import matplotlib.pyplot as plt

# Create line plot of model year vs. horsepower without confidence intervals
sns.relplot(x='model_year', y='horsepower',
        data=mpg,
        kind='line',
        ci=None)

# Show plot
plt.show()
```

Code Explanation

1. Import seaborn and matplotlib.pyplot for creating visualizations.
2. Use sns.relplot() to create a line plot with:
   - 'x' set to 'model_year' for the year the car model was produced.
   - 'y' set to 'horsepower' for the engine power.
   - 'kind' set to 'line' to generate a line plot.
   - 'ci' set to 'None' to turn off the confidence intervals.
   - 'data' set to mpg, the DataFrame containing the data.
3. Use plt.show() to render and display the plot.