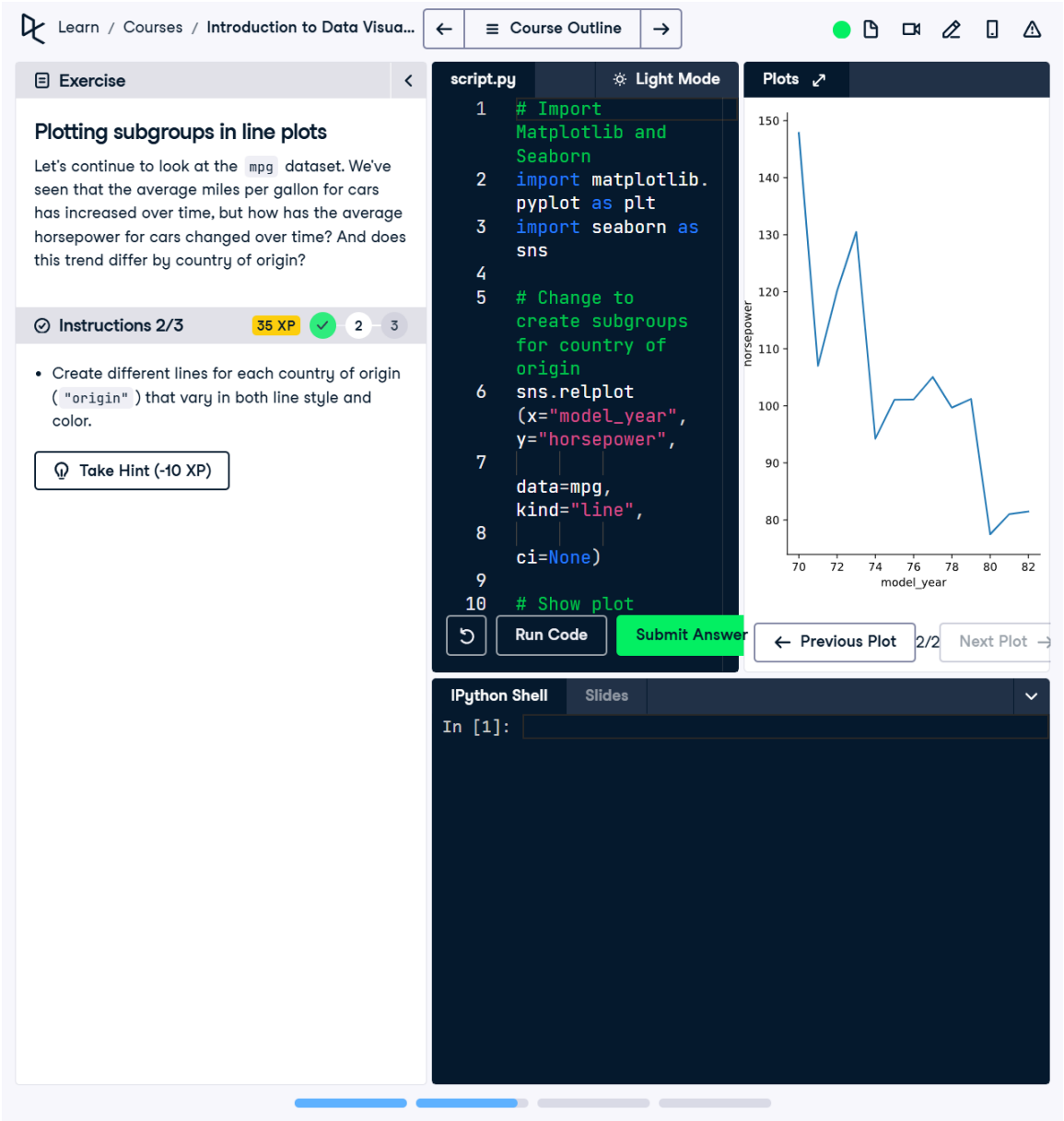

Plotting Subgroups in Line Plots with Different Line Styles and Colors

Create different lines for each country of origin ('origin') that vary in both line style and color.

Full Answer

To create subgroups with different line styles and colors, use the 'hue' and 'style' parameters set to 'origin'. Below is the working code:

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

# Create subgroups for country of origin with varying line style and color
sns.relplot(x='model_year', y='horsepower',
            data=mpg,
            kind='line',
            hue='origin',
            style='origin',
            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.
   - 'hue' set to 'origin' to vary the line colors based on the country of origin.
   - 'style' set to 'origin' to vary the line styles based on the country of origin.
   - '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.