Adding a Title and Axis Labels

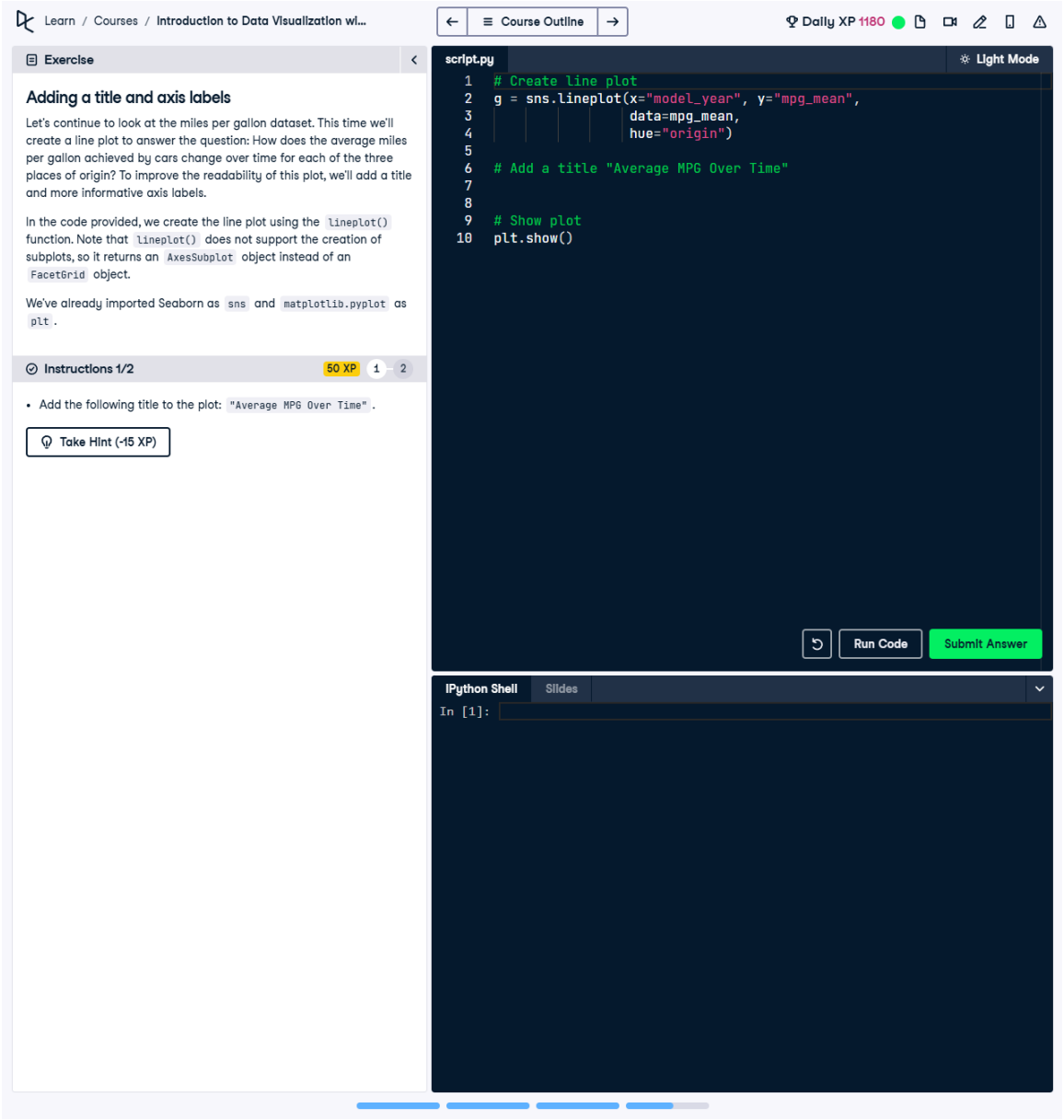

Figure 1: Screenshot showing the task to add a title and axis labels to a line plot.

Question

We continue to look at the miles per gallon dataset. This exercise creates a line plot to answer the question: How does the average miles per gallon achieved by cars change over time for each of the three places of origin?

The task involves adding the title "Average MPG Over Time" to the line plot.

Question Explanation

The sns.lineplot() function creates a line plot for visualizing trends over time or categories. Unlike relplot(), lineplot() returns an AxesSubplot object rather than a FacetGrid. Titles can be added directly to AxesSubplot objects using the set_title() method.

Code Solution

```
# Create line plot
g = sns.lineplot(x="model_year", y="mpg_mean",
                 data=mpg_mean, hue="origin")

# Add a title
g.set_title("Average MPG Over Time")

# Show plot
plt.show()
```

Answer Explanation

1. g = sns.lineplot(...): Creates a line plot using 'mpg_mean' dataset, with 'model_year' on the x-axis and 'mpg_mean' on the y-axis, and differentiates data by 'origin' using hue.
2. g.set_title("Average MPG Over Time"): Adds a title to the AxesSubplot object using the set_title() method.
3. plt.show(): Displays the plot with the added title.