

Box Plot with Subgroups and Updated Hint

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Light Mode

Exercise

Box plot with subgroups

In this exercise, we'll look at the dataset containing responses from a survey given to young people. One of the questions asked of the young people was: "Are you interested in having pets?" Let's explore whether the distribution of ages of those answering "yes" tends to be higher or lower than those answering "no", controlling for gender.

Instructions 100 XP

- Set the color palette to "Blues".
- Add subgroups to color the box plots based on "Interested in Pets".
- Set the title of the `FacetGrid` object `g` to "Age of Those Interested in Pets vs. Not".
- Make the plot display using a Matplotlib function.

Take Hint (-30 XP)

script.py

```
1 # Set palette to "Blues"
2 ----
3
4 # Adjust to add subgroups based on "Interested
  in Pets"
5 g = sns.catplot(x="Gender",
6                 y="Age", data=survey_data,
7                 kind="box", hue=____)
8
9 # Set title to "Age of Those Interested in Pets
  vs. Not"
10 ----
11
12 # Show plot
13 plt.----
```

Run Code Submit Answer

IPython Shell Slides

In [1]:

Figure 1: Screenshot showing the task to create a box plot with subgroups and title.

Question

In this exercise, we'll look at the dataset containing responses from a survey given to young people. One of the questions asked was: "Are you interested in having pets?" This exercise explores how the age distribution differs between those who answered "yes" and "no," controlling for gender.

****Instructions:****

1. Set the color palette to "Blues".
2. Add subgroups to color the box plots based on "Interested in Pets".
3. Set the title of the FacetGrid object `g` to "Age of Those Interested in Pets vs. Not".
4. Make the plot display using a Matplotlib function.

Hint and Explanation

If you're working with a FacetGrid object created using Seaborn's `catplot()`, the title can be set using the Matplotlib `suptitle()` function. The updated code uses `g.fig.suptitle()` to add a title to the FacetGrid object.

Updated Code Solution

```
# Set palette to "Blues"
sns.set_palette("Blues")

# Adjust to add subgroups based on "Interested in Pets"
g = sns.catplot(x="Gender", y="Age", data=survey_data,
               kind="box", hue="Interested in Pets")

# Set title to "Age of Those Interested in Pets vs. Not"
g.fig.suptitle("Age of Those Interested in Pets vs. Not")

# Show plot
plt.show()
```

Answer Explanation

1. `sns.set_palette("Blues")`: Sets the color palette to "Blues" for a cohesive color scheme in the box plot.
2. `g = sns.catplot(...)`: Creates a box plot grouped by gender on the x-axis and age on the y-axis, with subgroups differentiated by "Interested in Pets" using the `hue` parameter.
3. `g.fig.suptitle(...)`: Adds a descriptive title to the FacetGrid object using Matplotlib's `suptitle()` method.
4. `plt.show()`: Displays the resulting plot with the title and box plots.