

# Can multiple Seaborn plots be created in one figure?

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May 2, 2024

## RECOMMENDED CITATION

stats writer (2024). *Can multiple Seaborn plots be created in one figure?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=141878>

Yes, it is possible to create multiple Seaborn plots in one figure. Seaborn, a data visualization library in Python, allows for the creation of multiple plots in a single figure using the "subplots" function. This allows for easy comparison and analysis of different data sets within the same figure. By specifying the number of rows and columns, multiple plots can be placed in a grid format, making it convenient to view and interpret the data. Additionally, customizations such as titles, labels, and styles can be applied to each individual plot, enhancing the overall visual presentation. Overall, creating multiple Seaborn plots in one figure can greatly improve the efficiency and effectiveness of data analysis and visualization.

## Create Multiple Seaborn Plots in One Figure

You can use the `FacetGrid()` function to create multiple Seaborn plots in one figure:

```
#define grid
```

```
g = sns.FacetGrid(data=df, col='variable1', col_wrap=2)
```

```
#add plots to grid
```

```
g.map(sns.scatterplot, 'variable2', 'variable3')
```

Note that the `col` argument specifies the variable to group by and the `col_wrap` argument specifies the number of plots to display per row.

The following examples show how to use this function in practice with the built-in 'tips' dataset:

```
#load tips dataset
```

```
tips = sns.load_dataset('tips')
```

```
#view first five rows of tips dataset
```

```
tips.head()
```

```
total_bill tip sex smoker day time size
```

```
0 16.99 1.01 Female No Sun Dinner 2
```

```
1 10.34 1.66 Male No Sun Dinner 3
```

```
2 21.01 3.50 Male No Sun Dinner 3
```

```
3 23.68 3.31 Male No Sun Dinner 2
```

```
4 24.59 3.61 Female No Sun Dinner 4
```

**Example 1: Create Multiple Plots**

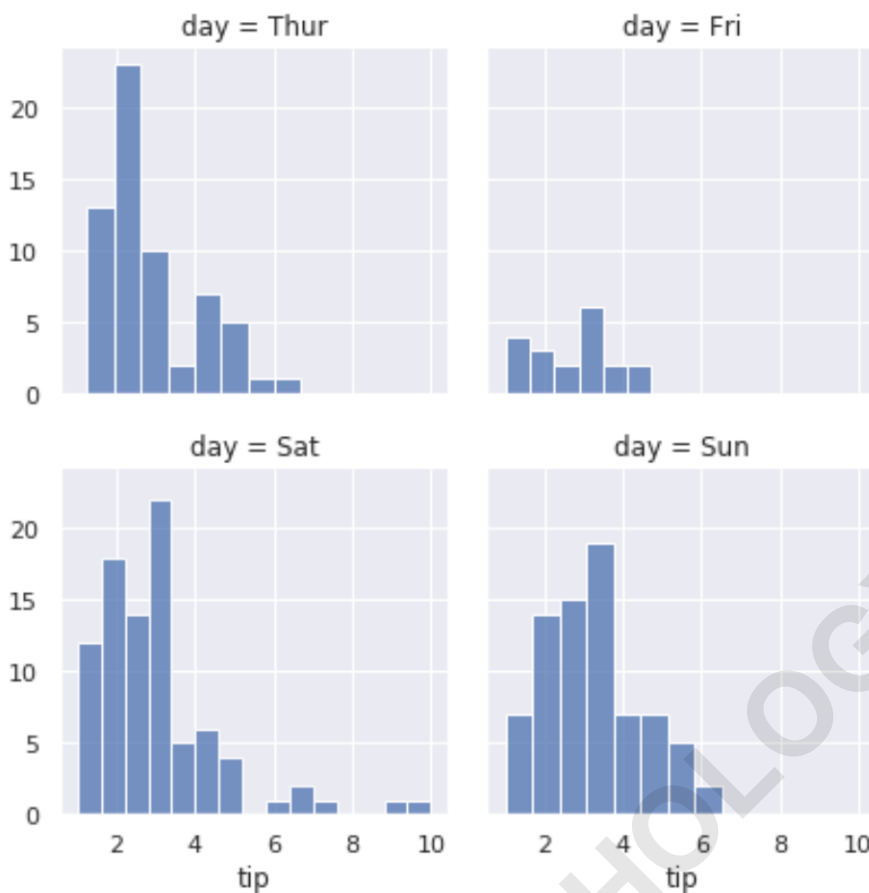
**The following code shows how to create multiple Seaborn plots in one figure:**

```
#define grid with two plots per row
```

```
g = sns.FacetGrid(data=tips, col='day', col_wrap=2)
```

```
#add histograms to each plot
```

```
g.map(sns.histplot, 'tip')
```



Here's what we did with this simple code:

Specified to group by the variable 'day'  
 Specified to display 2 plots per row  
 Specified to display a histogram in each plot that shows the distribution of 'tip' values for each particular day

Example 2: Create Multiple Plots with Specific Height

The following code shows how to create multiple Seaborn plots with a specific height and aspect ratio:

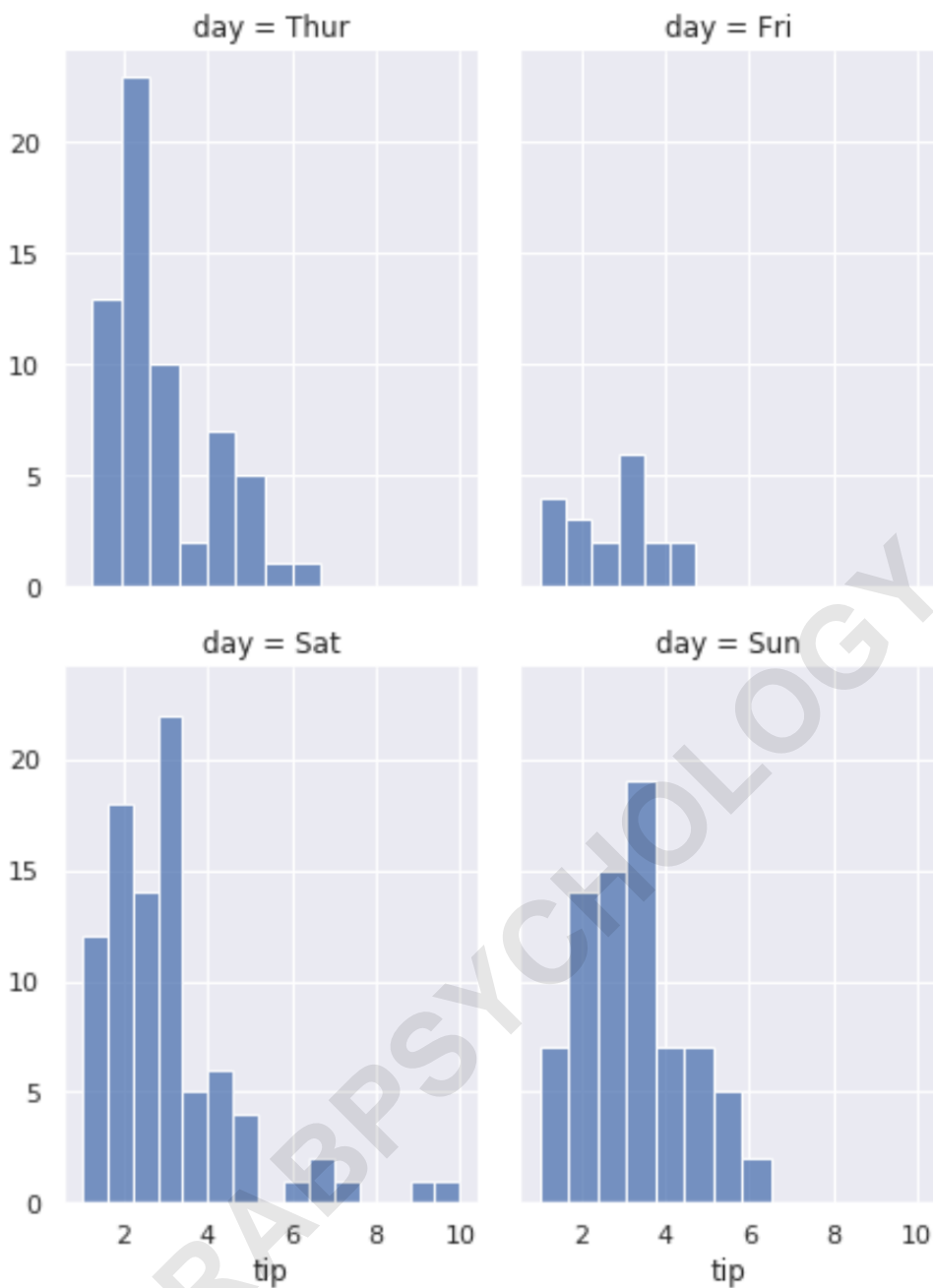
**#define grid**

```
g = sns.FacetGrid(data=tips, col='day', col_wrap=2,  
height=4, aspect=.75)
```

**#add histograms to each plot**

```
g.map(sns.histplot, 'tip')
```

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### Example 3: Create Multiple Plots with Legend

The following code shows how to create multiple Seaborn plots and add a legend:

```
#define grid
```

```
g = sns.FacetGrid(data=tips, col='day', hue='sex',  
col_wrap=2)
```

```
#add density plots to each plot
```

```
g.map(sns.kdeplot, 'tip')
```

```
#add legend
```

```
g.add_legend()
```

