

Untitled5

June 24, 2020

```
In [9]: #import essential packages
import seaborn as sns
import matplotlib.pyplot as plt

#loads in the data set
tips_data = sns.load_dataset("tips")
```

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In [10]: tips_data.head()
```

```
Out[10]:
```

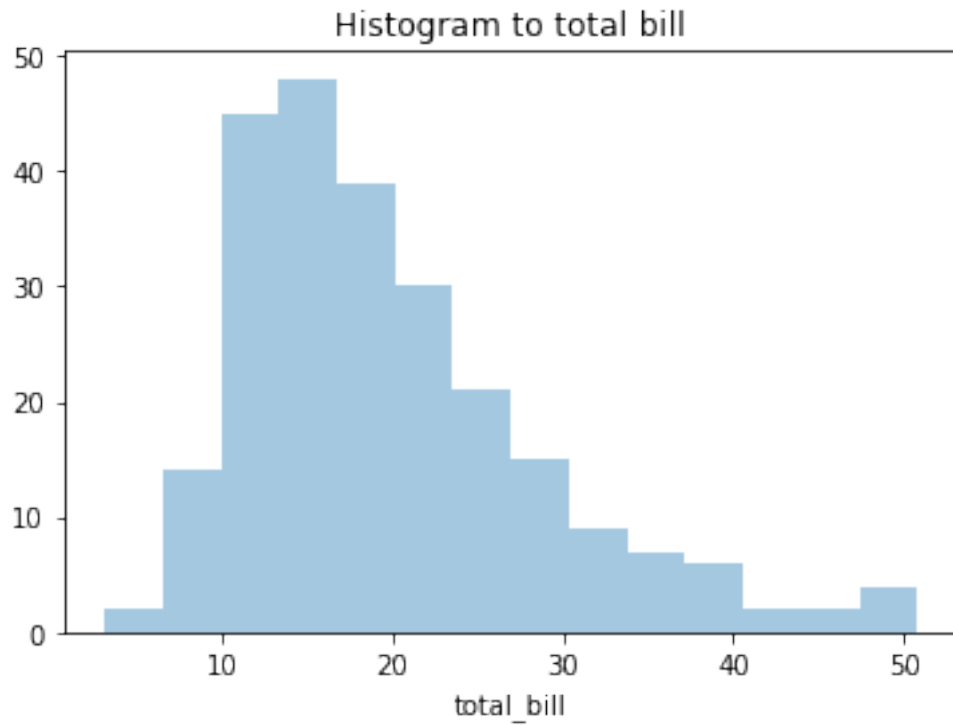
	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

```
In [11]: tips_data.describe()
```

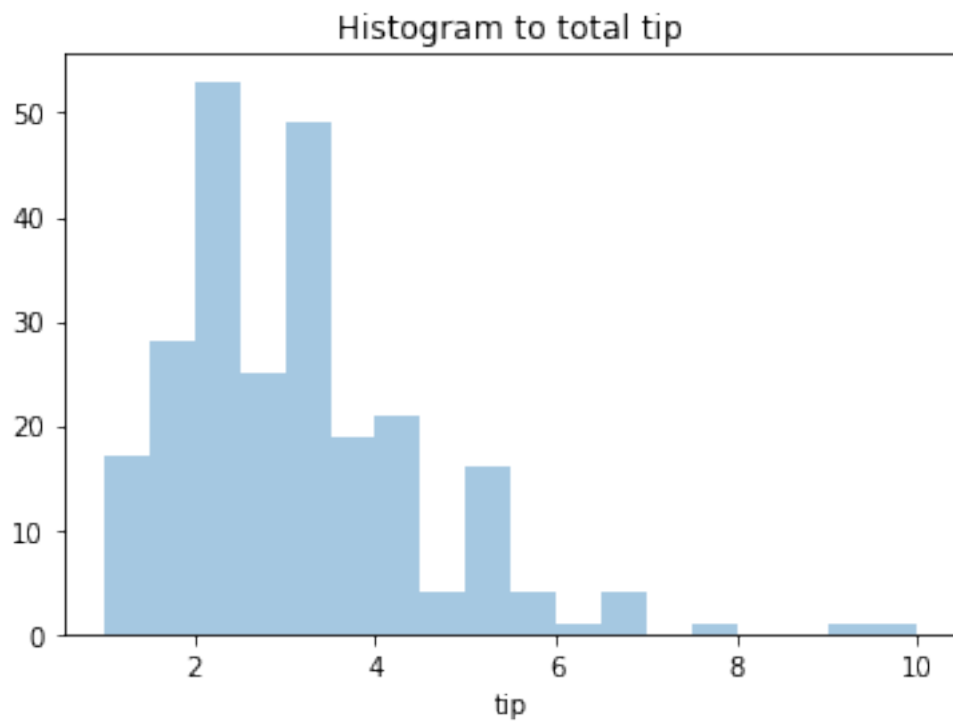
```
Out[11]:
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	total_bill	tip	size
count	244.000000	244.000000	244.000000
mean	19.785943	2.998279	2.569672
std	8.902412	1.383638	0.951100
min	3.070000	1.000000	1.000000
25%	13.347500	2.000000	2.000000
50%	17.795000	2.900000	2.000000
75%	24.127500	3.562500	3.000000
max	50.810000	10.000000	6.000000

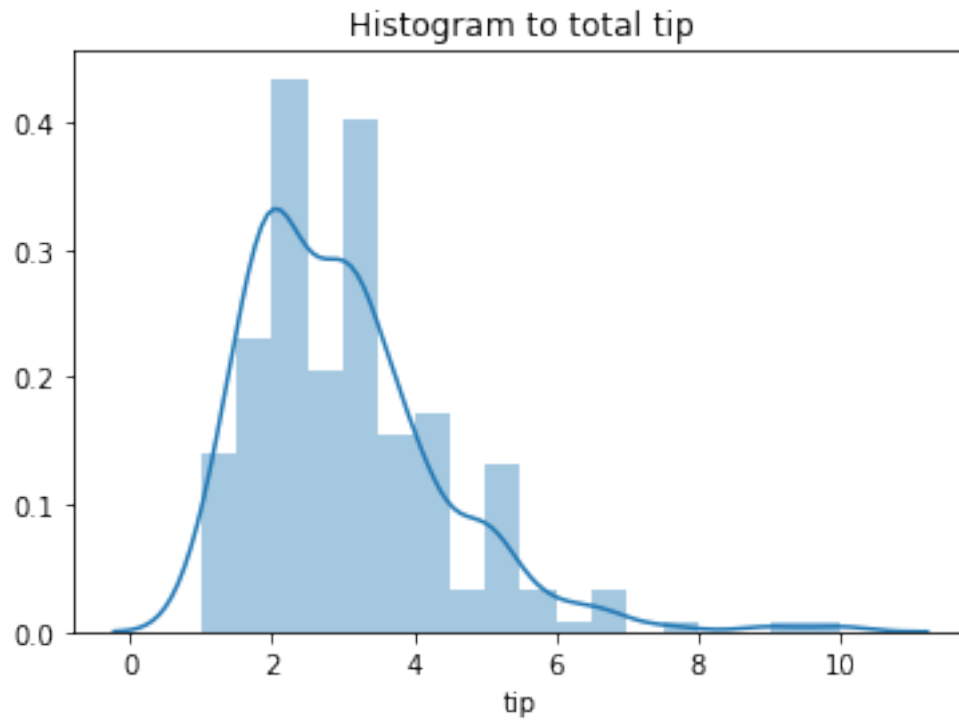
```
In [12]: #plot using histograms
sns.distplot(tips_data["total_bill"], kde = False).set_title("Histogram to total bill")
plt.show()
```



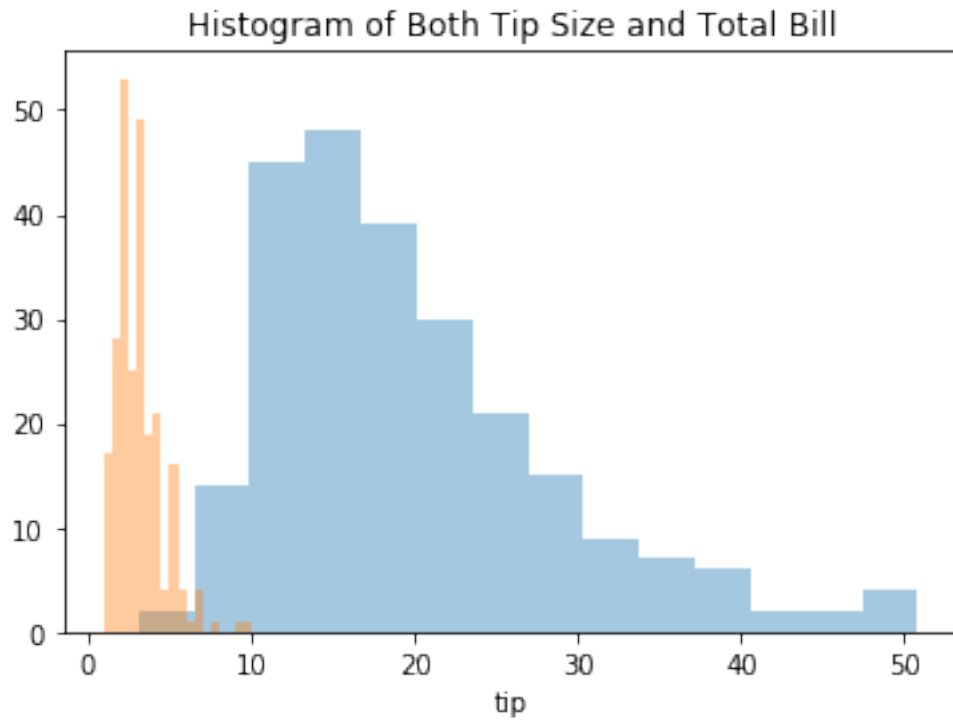
```
In [13]: sns.distplot(tips_data["tip"], kde = False).set_title("Histogram to total tip")  
plt.show()
```



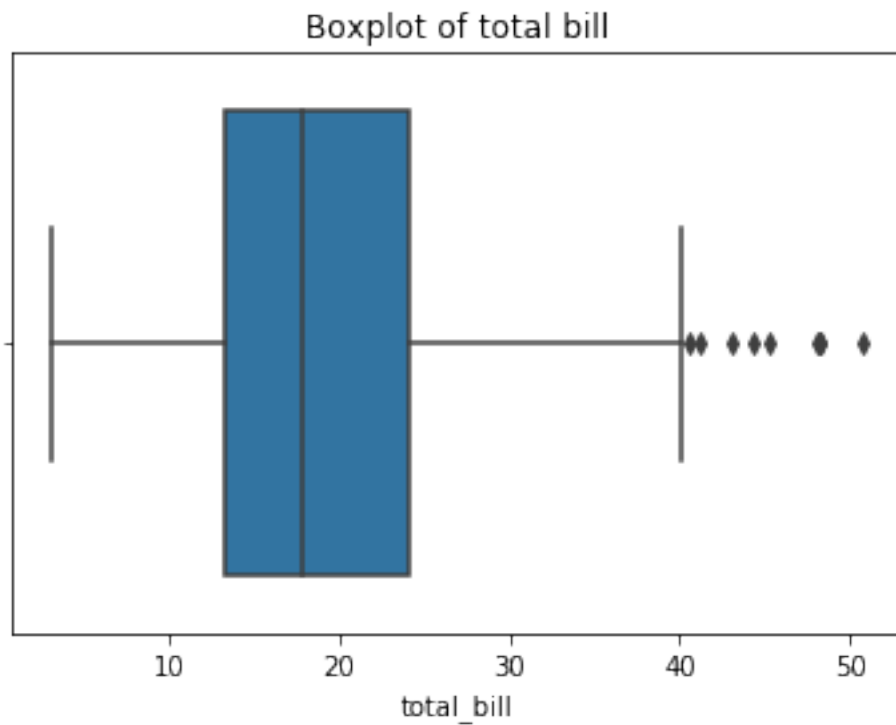
```
In [14]: #if kde is set to be true it creates a density plot
sns.distplot(tips_data["tip"], kde = True).set_title("Histogram to total tip")
plt.show()
```



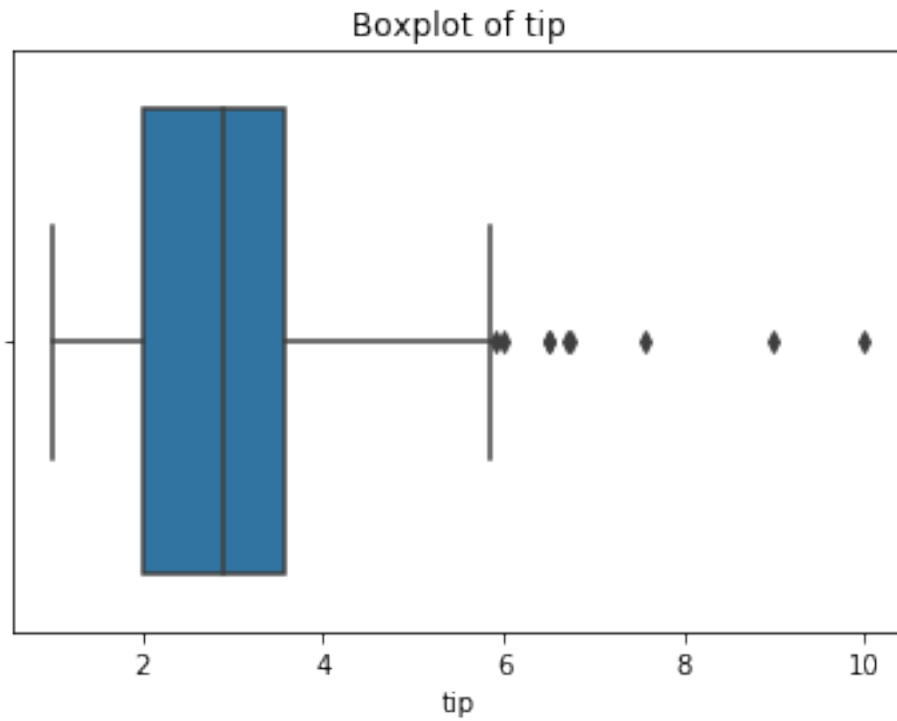
```
In [19]: # Plot a histogram of both the total bill and the tips'
sns.distplot(tips_data["total_bill"], kde = False)
sns.distplot(tips_data["tip"], kde = False).set_title("Histogram of Both Tip Size and")
plt.show()
```



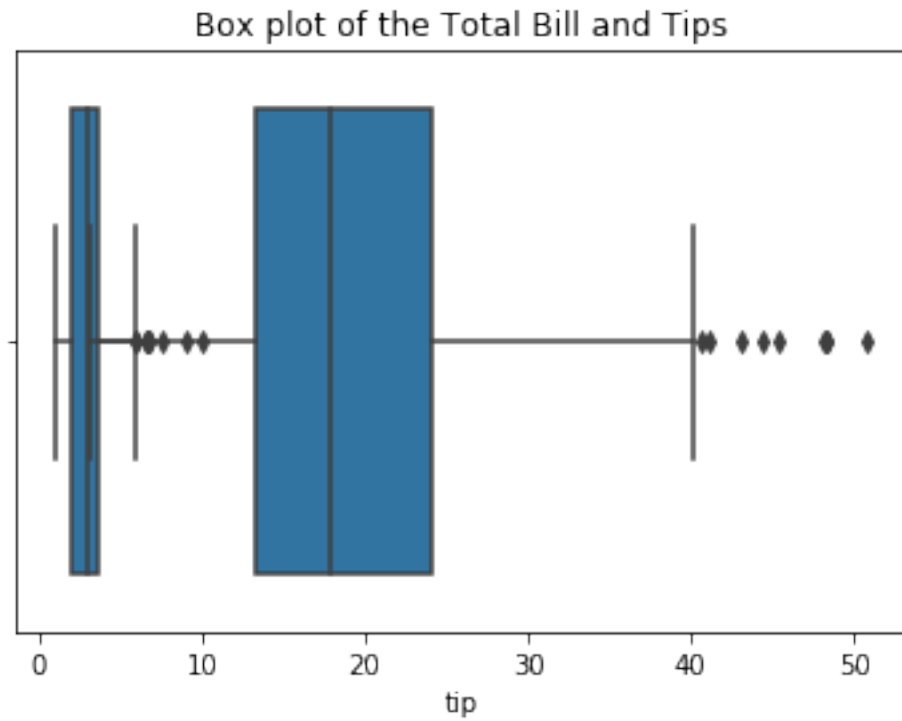
```
In [21]: #create a boxplot of total_bill  
sns.boxplot(tips_data["total_bill"]).set_title("Boxplot of total bill")  
plt.show()
```



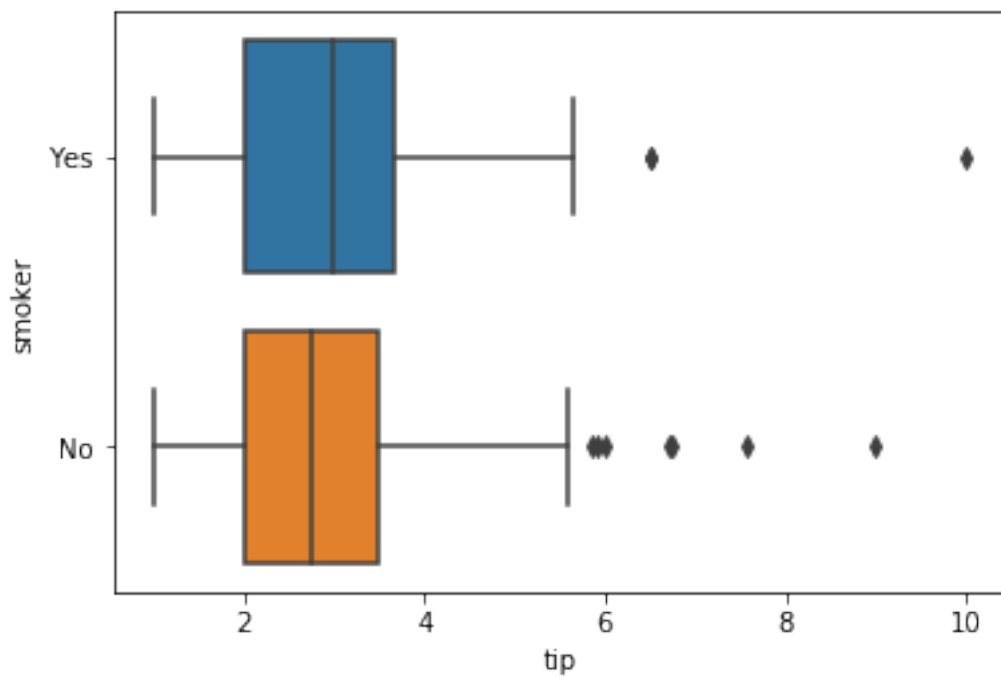
```
In [22]: #create a boxplot of total tip
sns.boxplot(tips_data["tip"]).set_title("Boxplot of tip")
plt.show()
```



```
In [23]: #create boxplot of both
sns.boxplot(tips_data["total_bill"])
sns.boxplot(tips_data["tip"]).set_title("Box plot of the Total Bill and Tips")
plt.show()
```



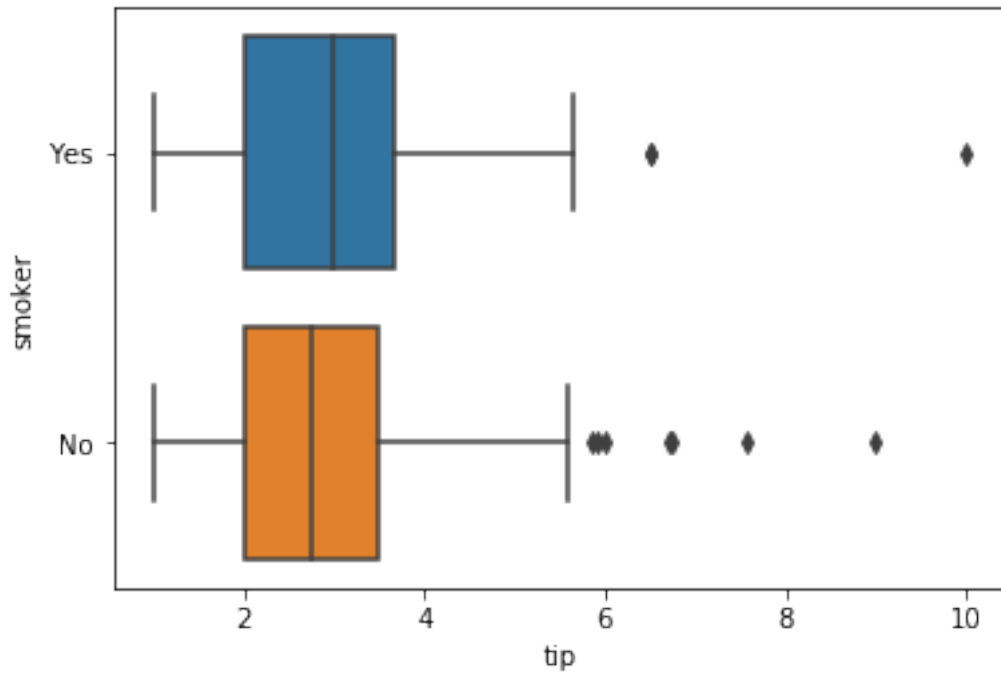
```
In [24]: # Create a boxplot and histogram of the tips grouped by smoking status
sns.boxplot(x = tips_data["tip"], y = tips_data["smoker"])
plt.show()
```

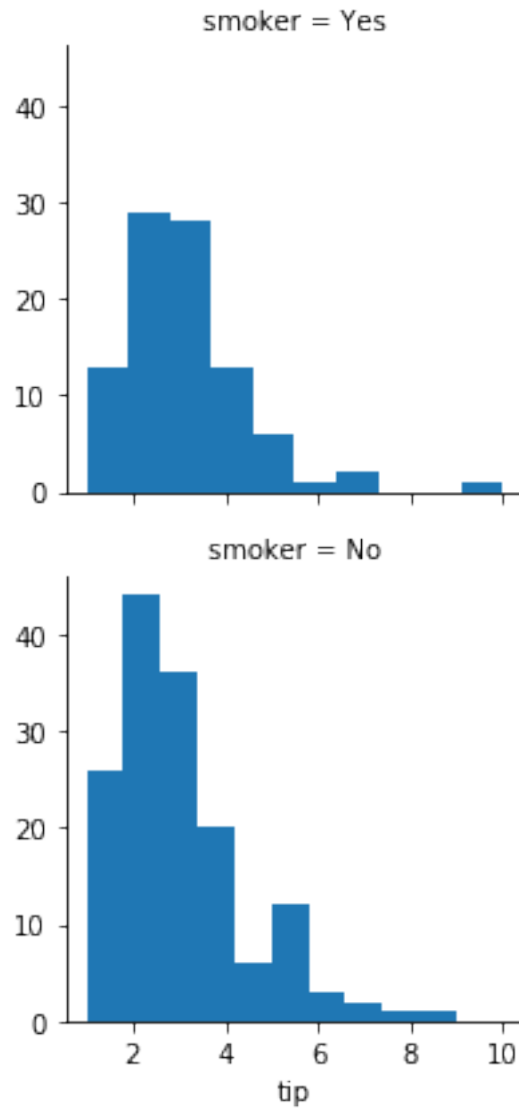


```
In [26]: sns.boxplot(x = tips_data["tip"], y = tips_data["smoker"])

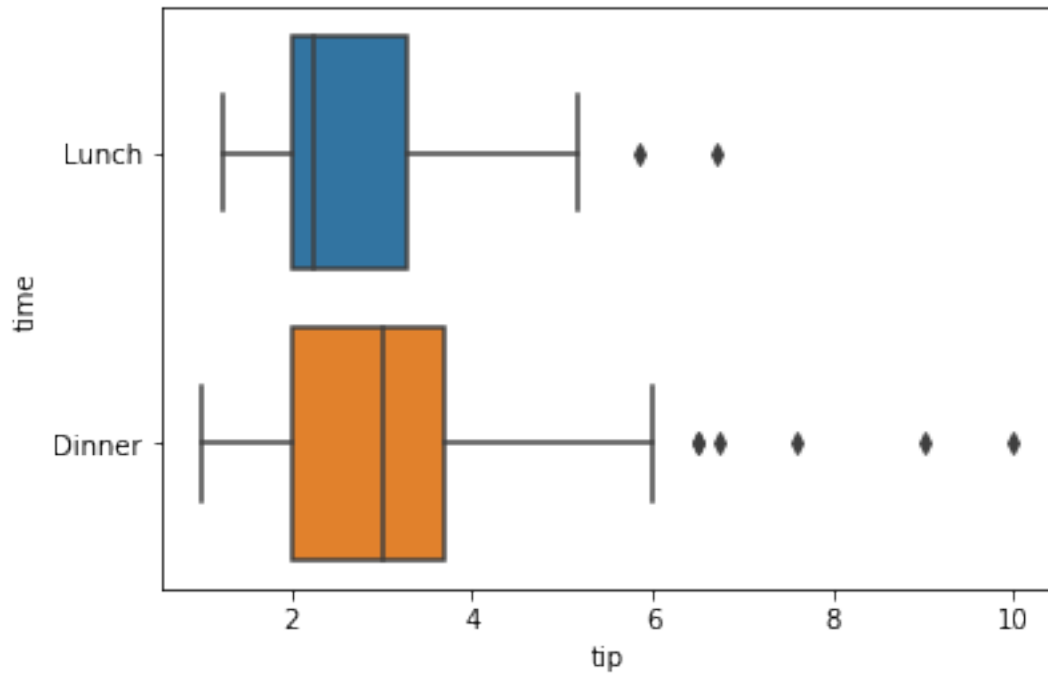
g = sns.FacetGrid(tips_data, row = "smoker")
g = g.map(plt.hist, "tip")

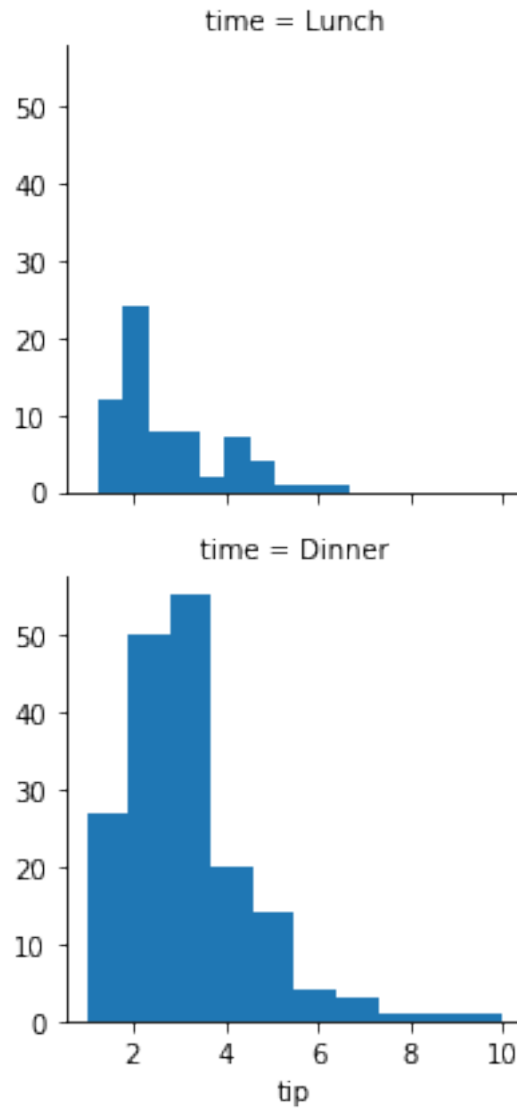
plt.show()
```





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In [28]: sns.boxplot(x = tips_data["tip"], y = tips_data["time"])
g = sns.FacetGrid(tips_data, row = "time")
g = g.map(plt.hist, "tip")
plt.show()
```



```
In [35]: sns.boxplot(x = tips_data["tip"], y = tips_data["day"]).set_title("boxplot of tips in

g = sns.FacetGrid(tips_data, row = "day")
g = g.map(plt.hist, "tip")
plt.show()
```

