

```
In [2]: #pip install --upgrade seaborn
```

```
In [3]: import warnings
warnings.filterwarnings("ignore",category=FutureWarning)
```

```
In [4]: import seaborn as sns
```

```
In [5]: sns.get_dataset_names()
```

```
Out[5]: ['anagrams',
         'anscombe',
         'attention',
         'brain_networks',
         'car_crashes',
         'diamonds',
         'dots',
         'dowjones',
         'exercise',
         'flights',
         'fmri',
         'geyser',
         'glue',
         'healthexp',
         'iris',
         'mpg',
         'penguins',
         'planets',
         'seaice',
         'taxis',
         'tips',
         'titanic']
```

```
In [6]: tips = sns.load_dataset("tips")
tips.head()
```


```
Out[6]:
```

	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 [7]: titanic= sns.load_dataset("titanic")
titanic.head()
```

Out[7]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adul
0	0	3	male	22.0	1	0	7.2500	S	Third	man	
1	1	1	female	38.0	1	0	71.2833	C	First	woman	
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	
3	1	1	female	35.0	1	0	53.1000	S	First	woman	
4	0	3	male	35.0	0	0	8.0500	S	Third	man	



In [8]: `tips= sns.load_dataset("tips")`
`tips.head()`

Out[8]:

	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 [9]: `tips`

Out[9]:

	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
...
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	2.00	Male	Yes	Sat	Dinner	2
242	17.82	1.75	Male	No	Sat	Dinner	2
243	18.78	3.00	Female	No	Thur	Dinner	2

244 rows × 7 columns

In [10]: `sns.set_theme(style="darkgrid")`

In [11]: `tips.to_csv("tips_datset.csv", index= False)`
`import pandas as pd`

```
In [12]: import os
os.getcwd()
```

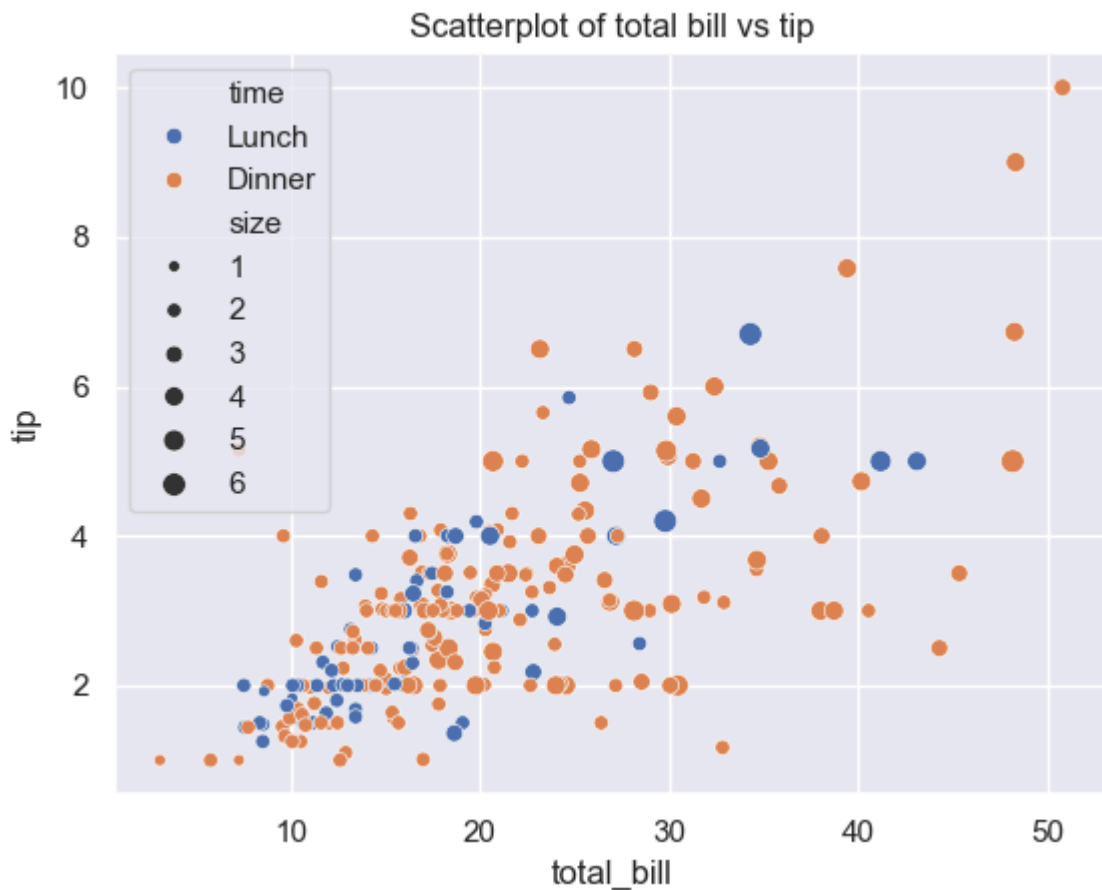
```
Out[12]: 'c:\\Users\\bagal\\OneDrive\\Desktop\\Python Sheats'
```

```
In [13]: import matplotlib.pyplot as plt
plt.figure(figsize = (8,6))
```

```
Out[13]: <Figure size 800x600 with 0 Axes>
<Figure size 800x600 with 0 Axes>
```

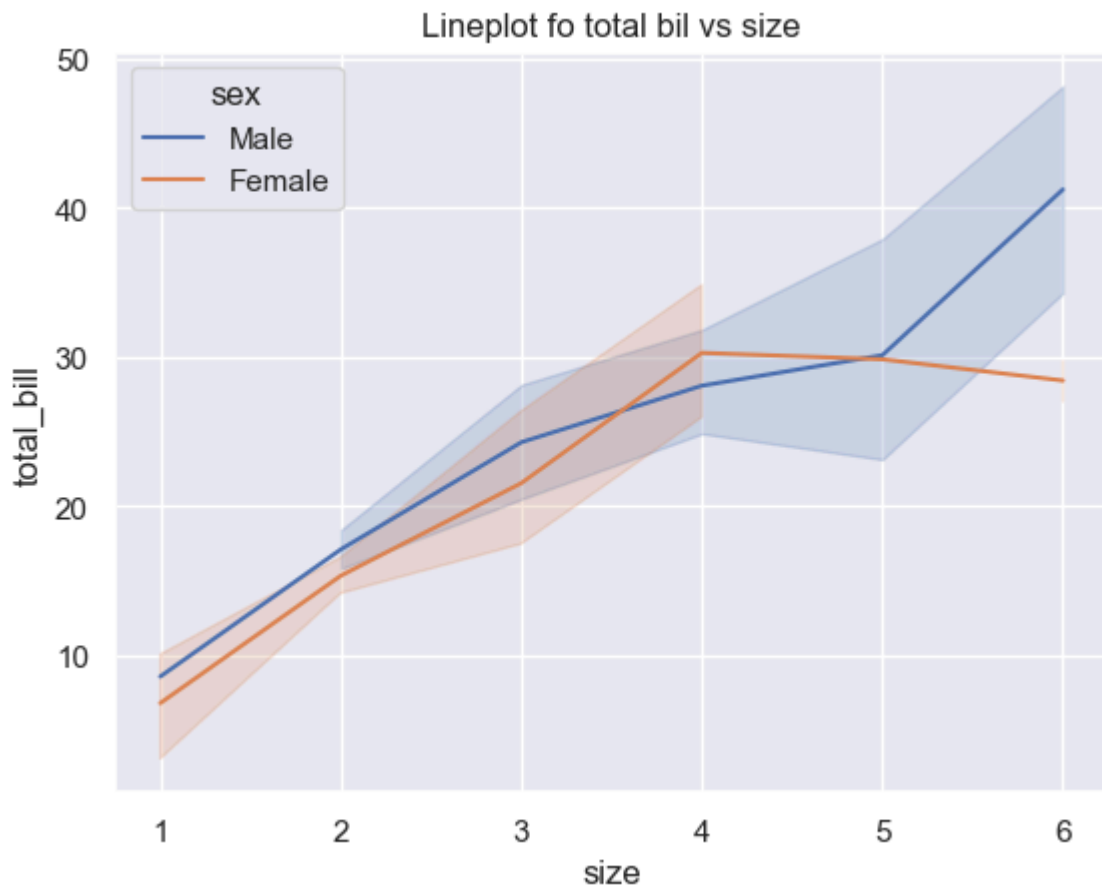
Scatterplot

```
In [14]: sns.scatterplot(data = tips,x = "total_bill",y="tip",hue = "time",size = "size",p
plt.title("Scatterplot of total bill vs tip")
plt.show()
```

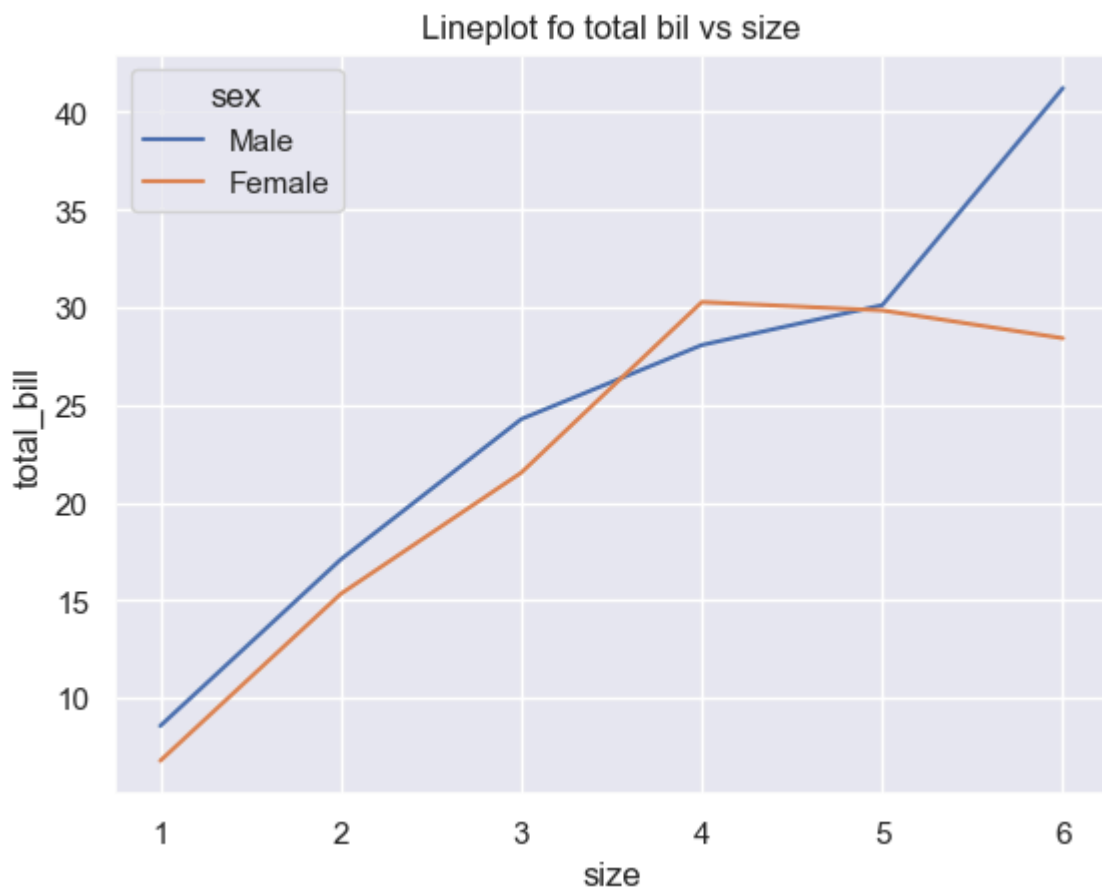


Lineplot

```
In [15]: sns.lineplot(data= tips, x= 'size' ,y='total_bill',hue='sex',markers = 'o')
plt.title("Lineplot fo total bil vs size")
plt.show()
```

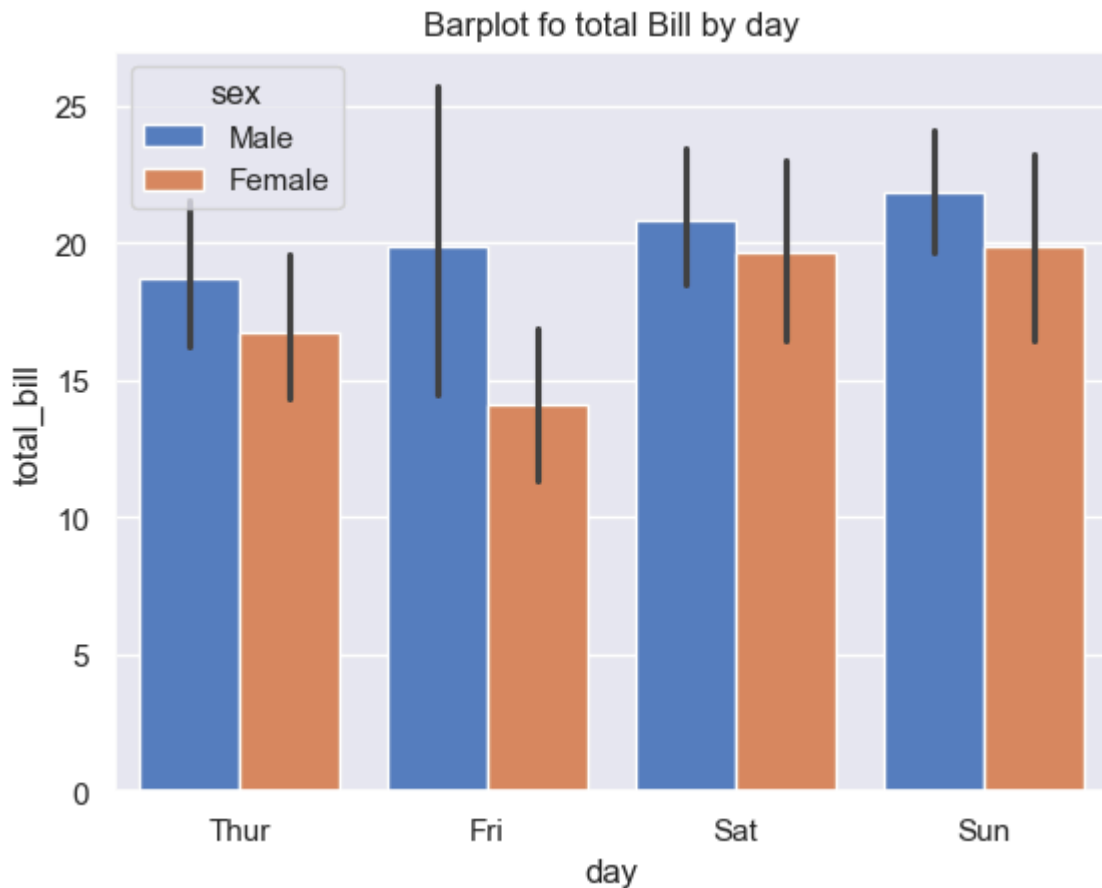


```
In [16]: sns.lineplot(data= tips, x= 'size' ,y='total_bill',hue='sex',ci=None,markers = 'c')
plt.title("Lineplot fo total bil vs size")
plt.show()
```



Bar plot

```
In [ ]: sns.barplot(data =tips,x='day',y = 'total_bill',hue = 'sex',palette = 'muted')
plt.title("Barplot fo total Bill by day")
plt.show()
```



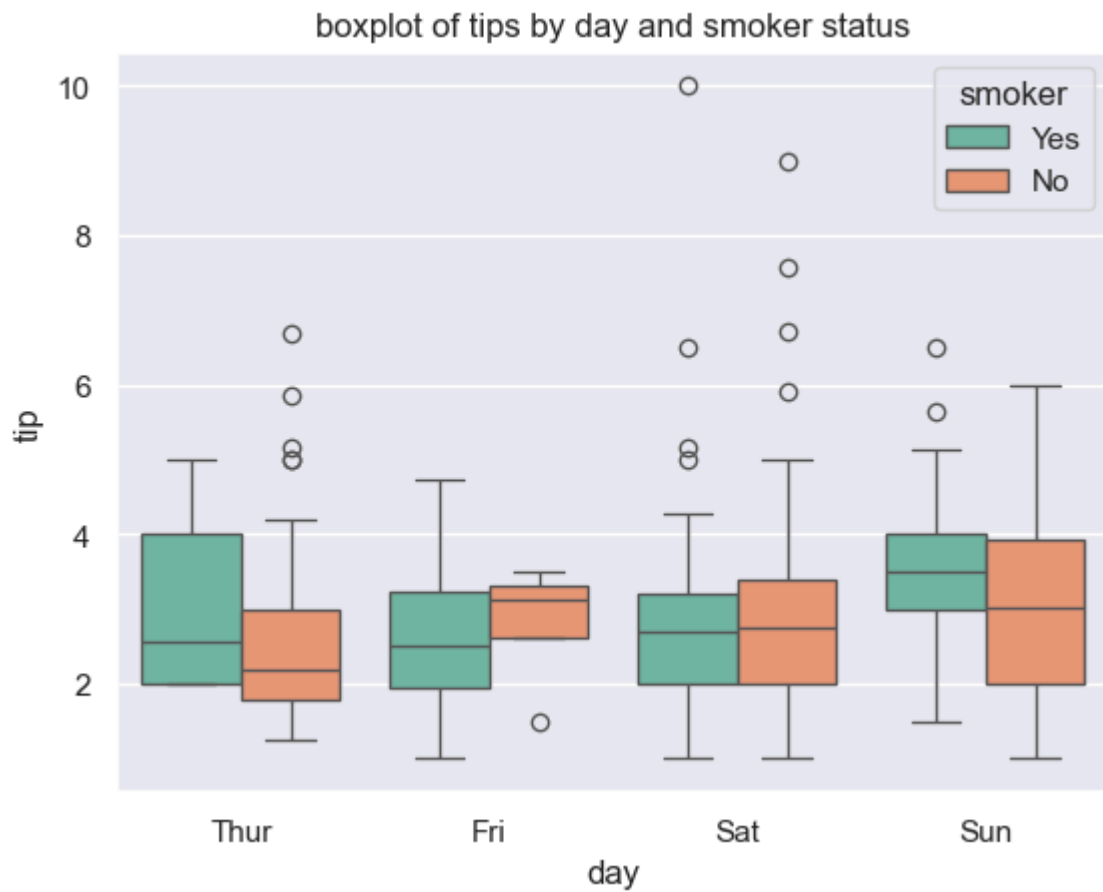
```
In [18]: tips.columns
```

```
Out[18]: Index(['total_bill', 'tip', 'sex', 'smoker', 'day', 'time', 'size'], dtype='object')
```

Boxplot

```
In [ ]: sns.boxplot(data = tips,x= "day",y = 'tip',hue= 'smoker',palette='Set2')
plt.title("boxplot of tips by day and smoker status")
```

```
Out[ ]: Text(0.5, 1.0, 'boxplot of tips by day and smoker status')
```



Violin plot

```
In [ ]: sns.violinplot(data= tips, x = 'day', y = 'total_bill', hue = 'time', split = True, palette = 'magma')
plt.title("violine plot of total by day and Time")
plt.show()
```

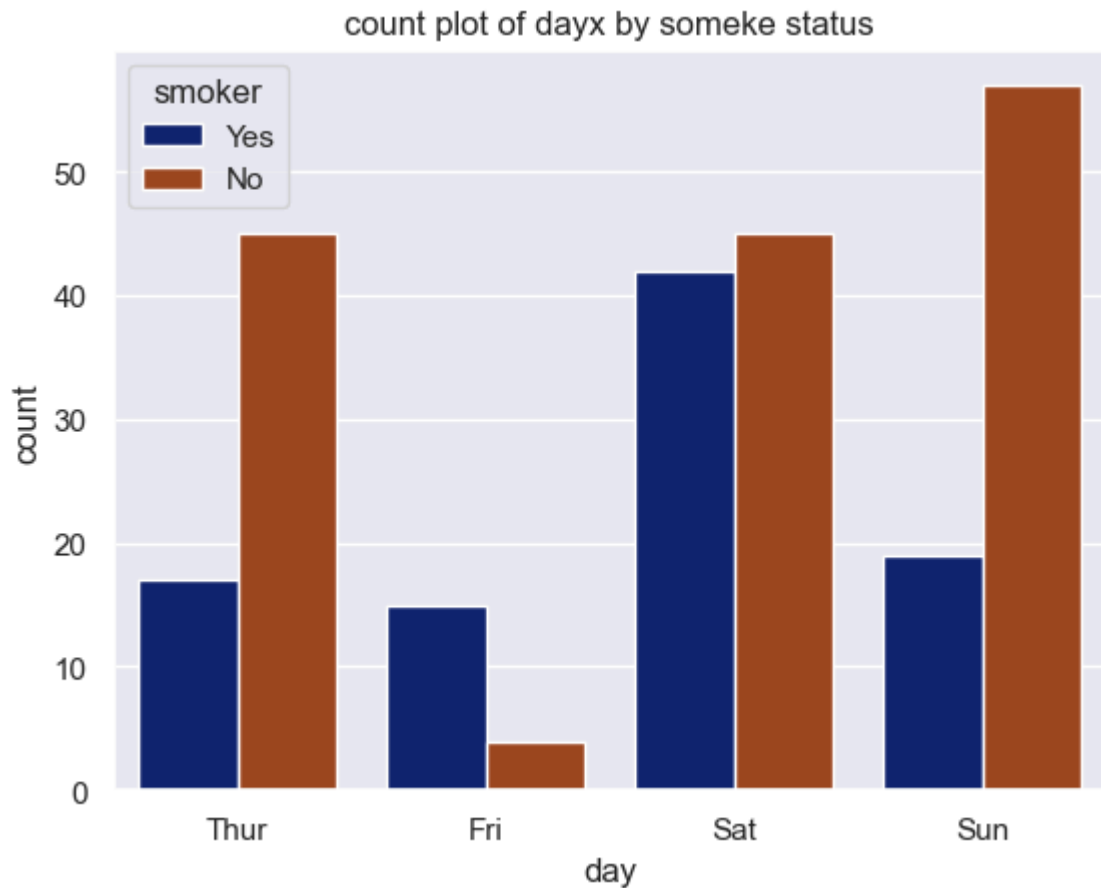


```
In [21]: tips.columns
```

```
Out[21]: Index(['total_bill', 'tip', 'sex', 'smoker', 'day', 'time', 'size'], dtype='object')
```

Countplot

```
In [22]: sns.countplot(data = tips, x = 'day', hue = 'smoker', palette = "dark")  
plt.title("count plot of dayx by someke status")  
plt.show()
```

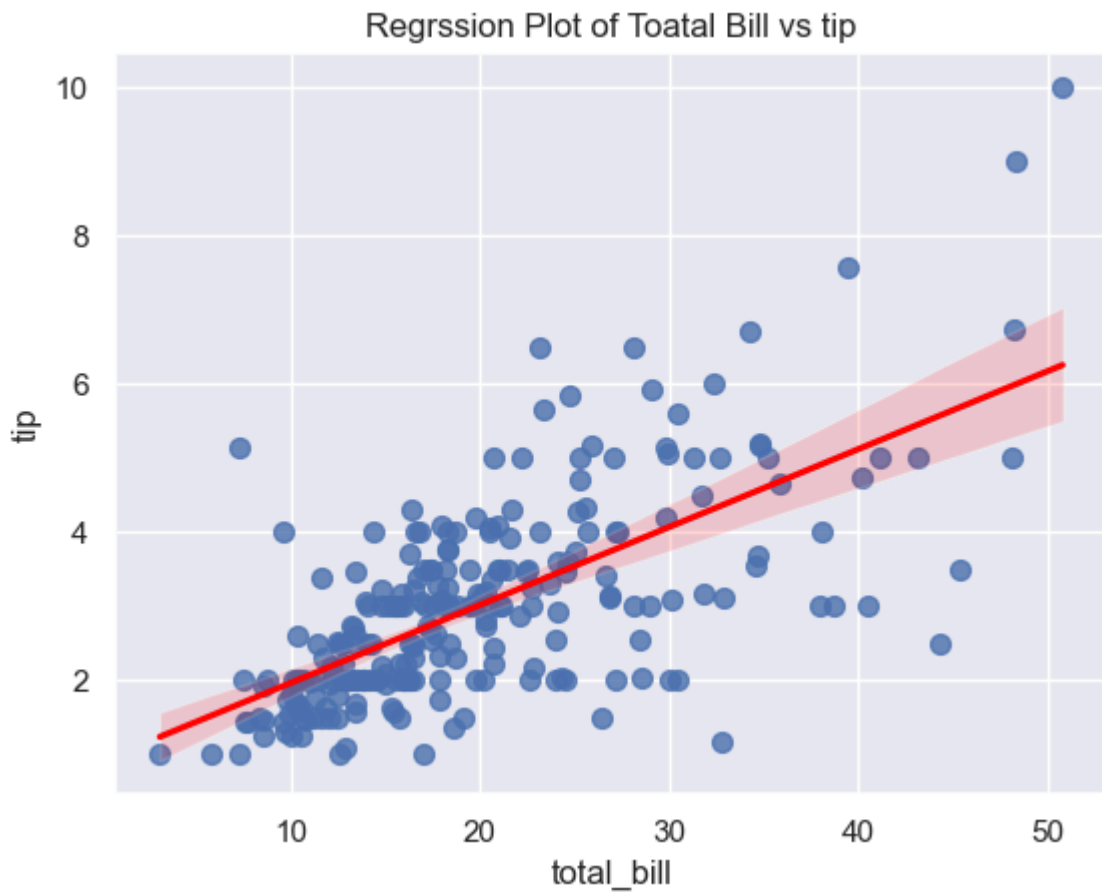


```
In [23]: tips.columns
```

```
Out[23]: Index(['total_bill', 'tip', 'sex', 'smoker', 'day', 'time', 'size'], dtype='object')
```

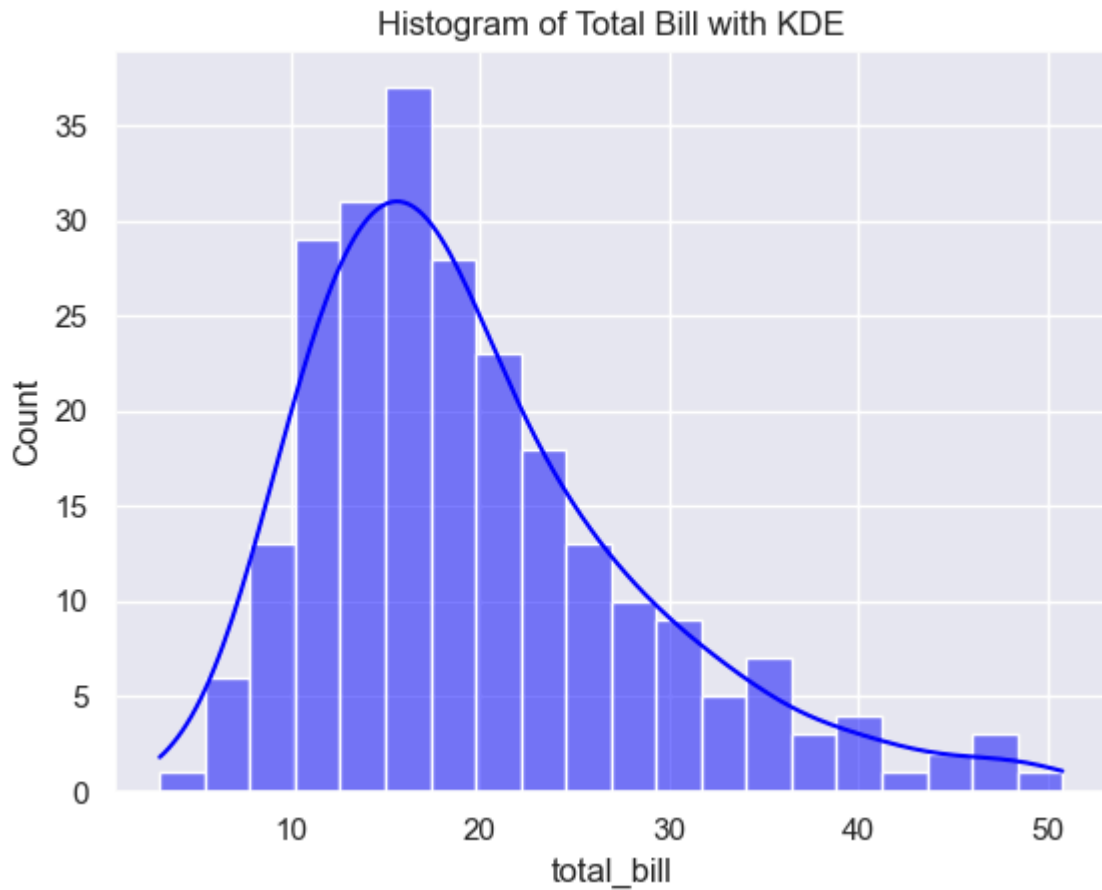
Regression plot

```
In [ ]: sns.regplot(data = tips ,x = 'total_bill',y = 'tip',scatter_kws ={'s':50},line_kws  
plt.title("Regrssion Plot of Toatal Bill vs tip")  
plt.show()
```

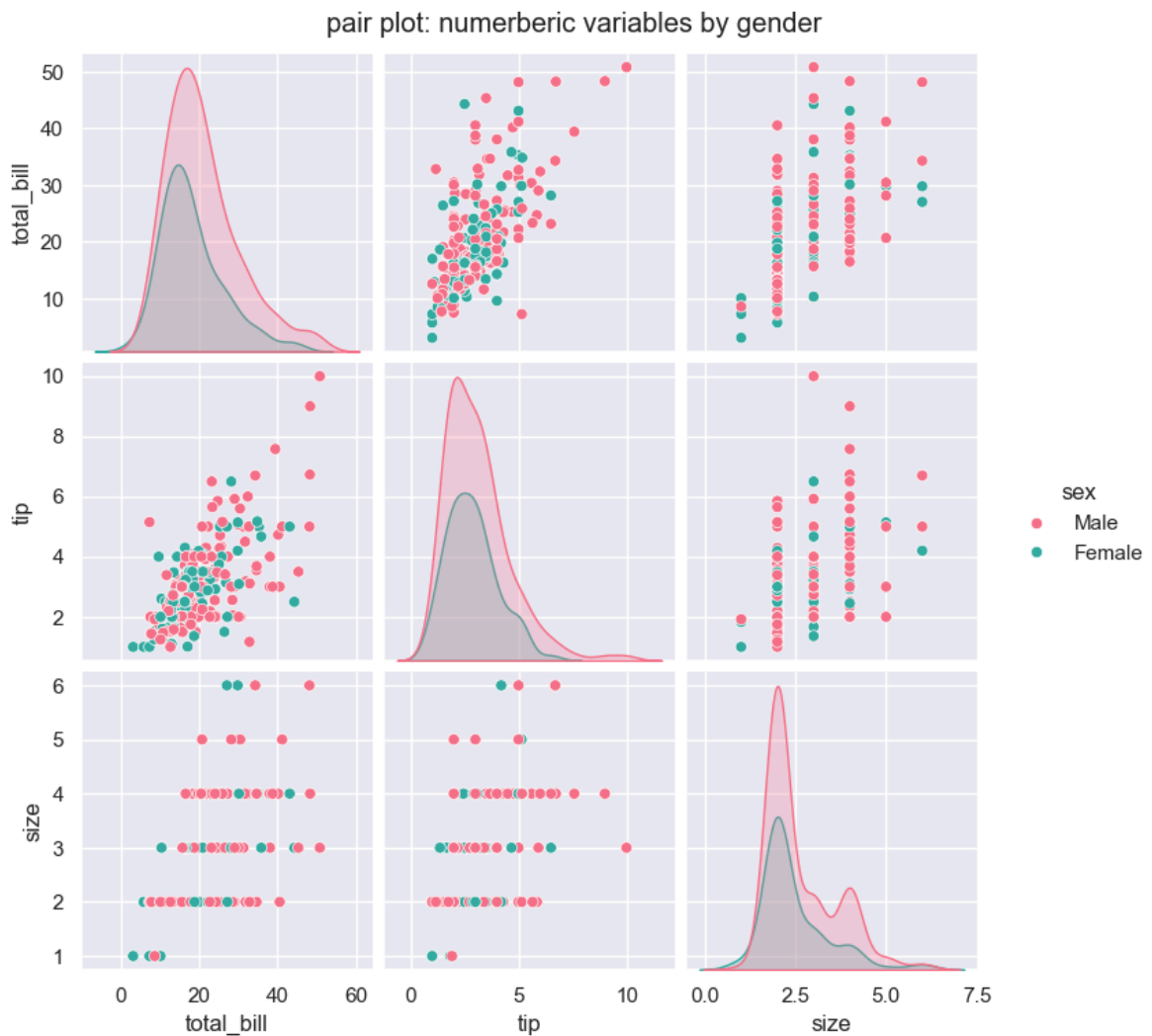
Histogram

```
In [ ]: sns.histplot(data = tips,x= "total_bill",bins= 20,kde= True,color = 'blue')
plt.title("Histogram of Total Bill with KDE")
plt.show()
```



Pairplot

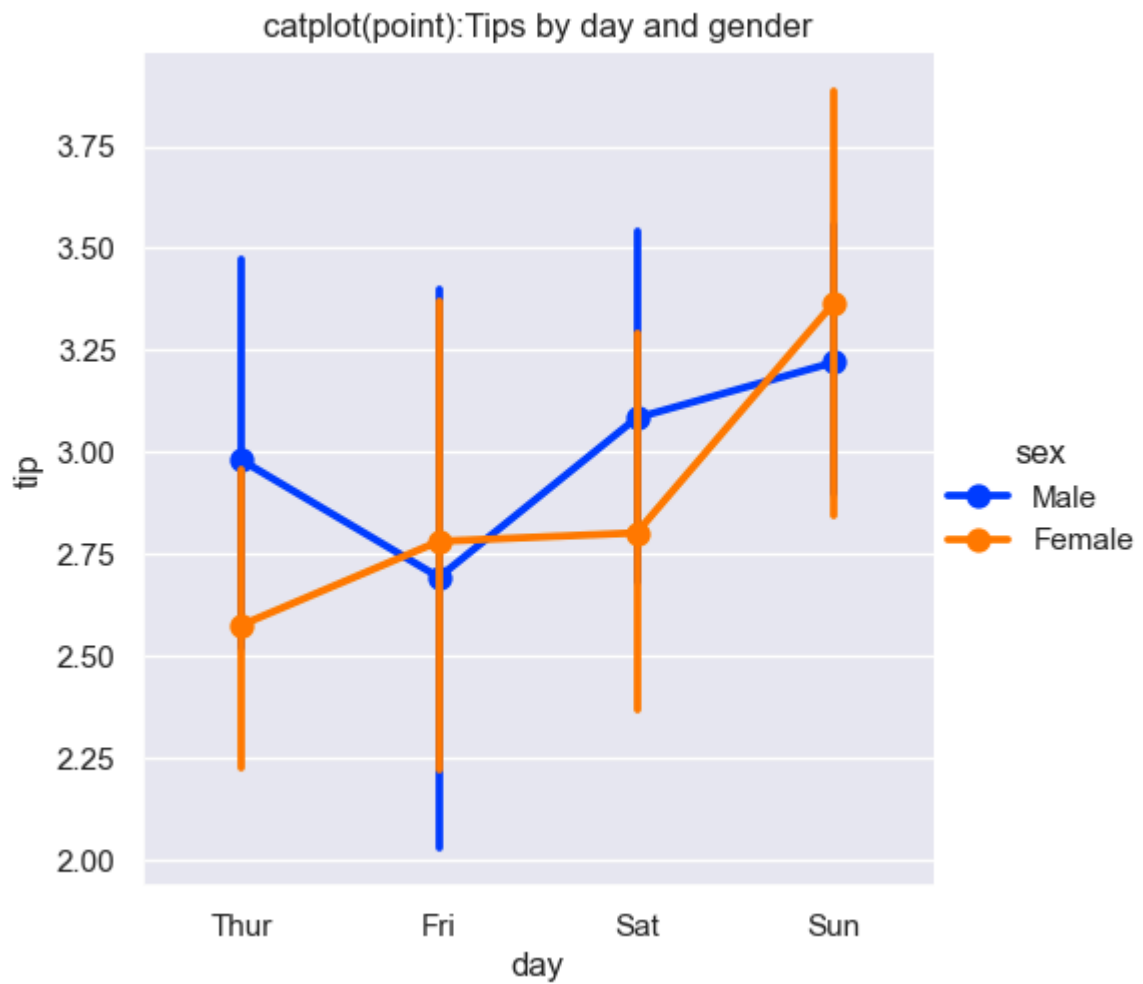
```
In [41]: sns.pairplot(tips, hue = 'sex', vars=["total_bill", "tip", "size"], palette='husl')
plt.suptitle("pair plot: numberberic variables by gender", y=1.02)
plt.show()
```



Catplot

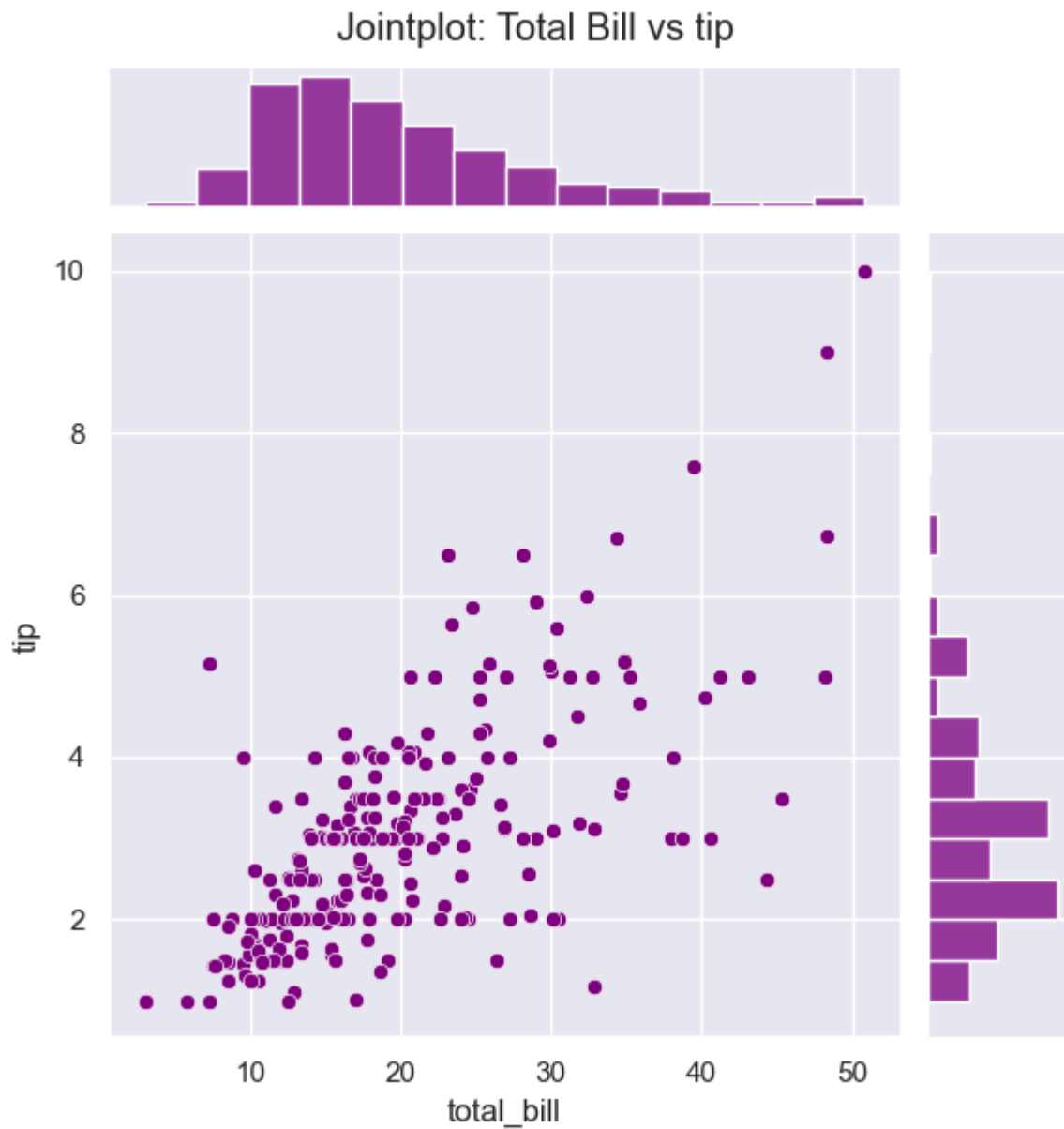
```
In [ ]: sns.catplot(data= tips,x= 'day',y= 'tip',hue='sex',kind = 'point',palette='brigh
plt.title("catplot(point):Tips by day and gender")
```

```
Out[ ]: Text(0.5, 1.0, 'catplot(point):Tips by day and gender')
```

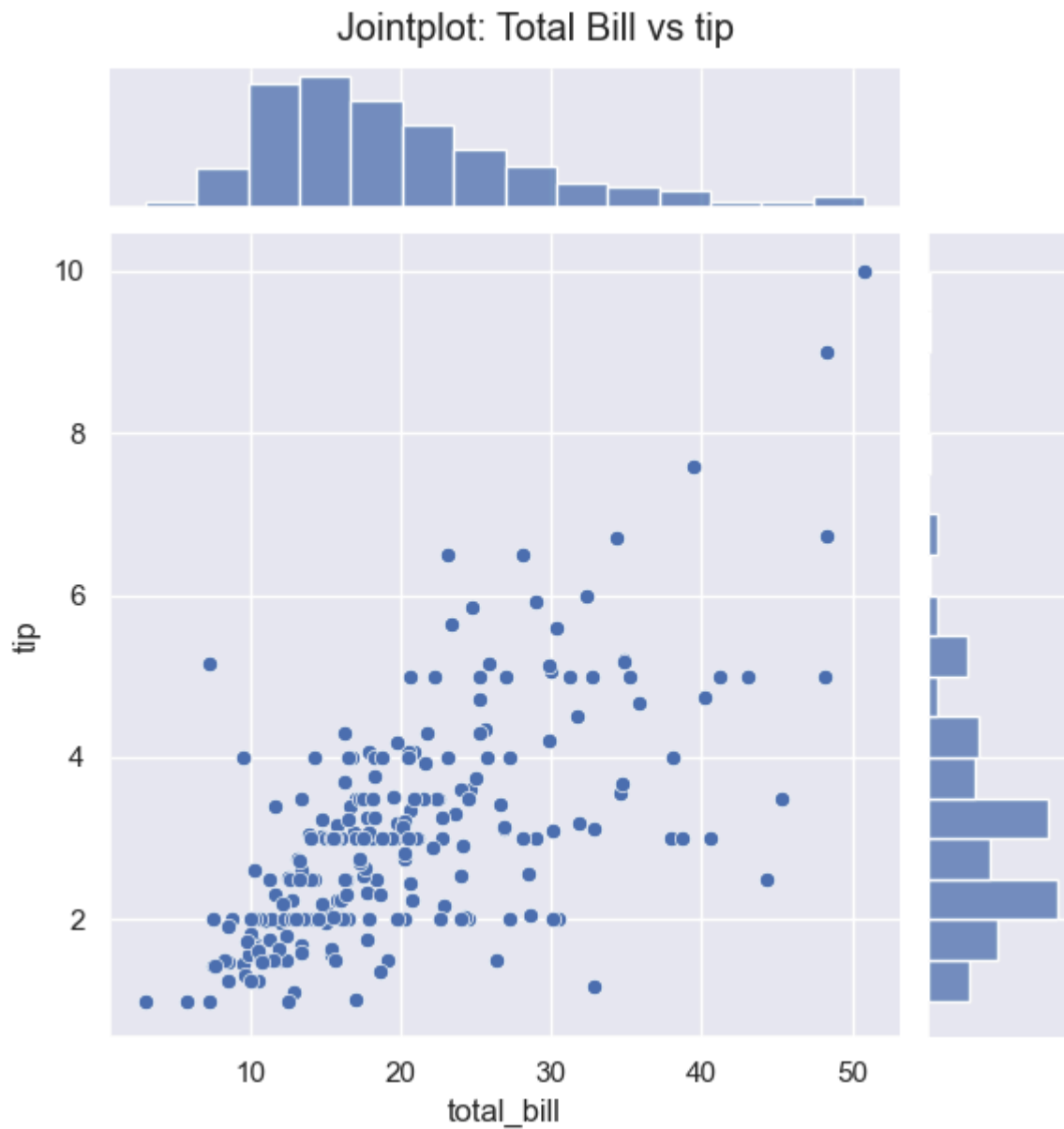


Jointplot

```
In [ ]: sns.jointplot(data = tips,x="total_bill",y = 'tip',kind= 'scatter',color= 'purple')
plt.suptitle("Jointplot: Total Bill vs tip",y=1.02)
plt.show()
```



```
In [ ]: sns.jointplot(data = tips,x="total_bill",y = 'tip',kind= 'scatter',palette='cool  
plt.suptitle("Jointplot: Total Bill vs tip",y=1.02)  
plt.show()
```

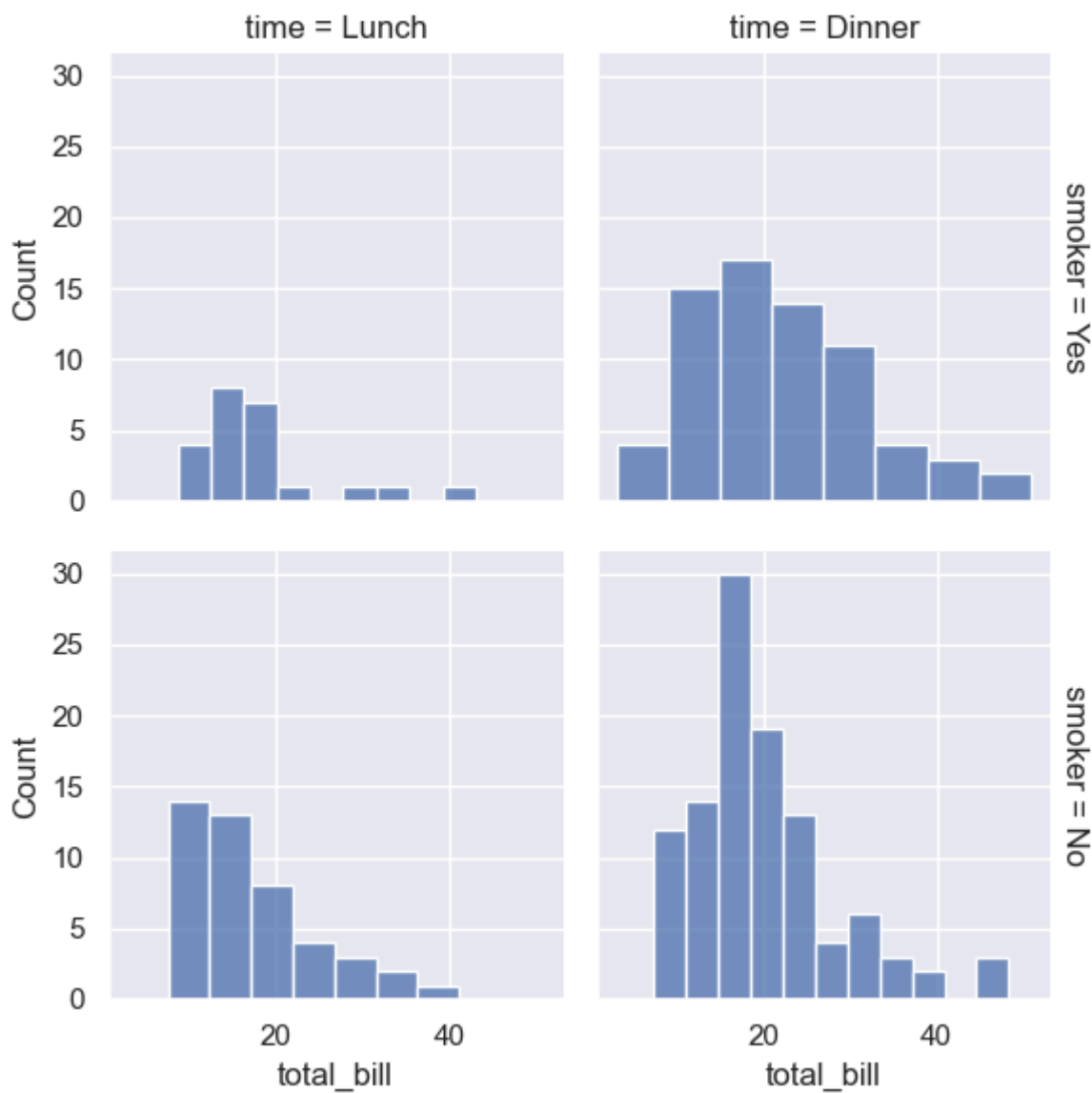


Facetgrid

```
In [ ]: g=sns.FacetGrid(tips,col = 'time',row = 'smoker',margin_titles=True).map(sns.hist
```

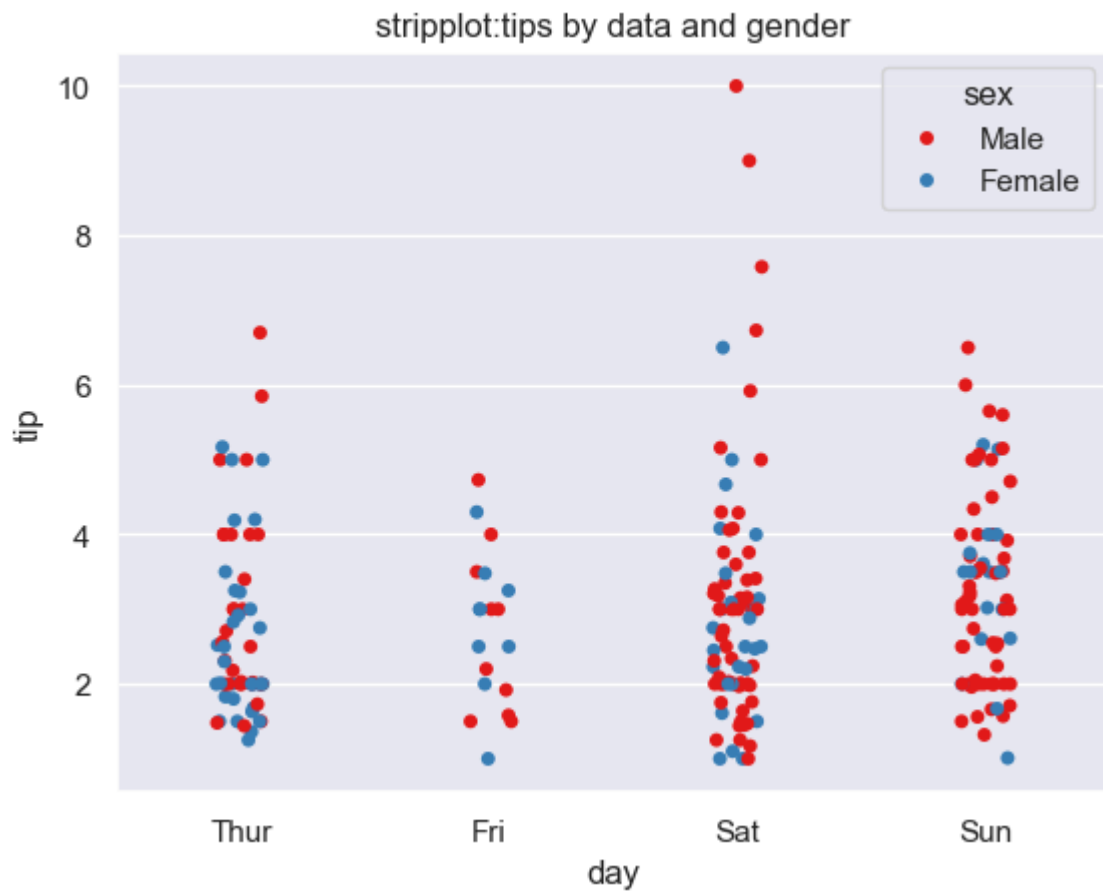
```
g
```

```
Out[ ]: <seaborn.axisgrid.FacetGrid at 0x128649b42d0>
```



Strip plot

```
In [ ]: sns.stripplot(data=tips,x='day',y='tip',hue='sex',jitter=True,palette= 'Set1')
plt.title("stripplot:tips by data and gender")
plt.show()
```



KDE plot

```
In [ ]: sns.kdeplot(data=tips,x='total_bill',hue = 'sex',fill=True,palette='tab10')
plt.title('kde plot.total bill density by gender')
plt.show()
```