

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

```
Requirement already satisfied: seaborn in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (0.13.2)
Requirement already satisfied: numpy!=1.24.0,>=1.20 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from seaborn) (1.26.4)
Requirement already satisfied: pandas>=1.2 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from seaborn) (2.2.2)
Requirement already satisfied: matplotlib!=3.6.1,>=3.4 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from seaborn) (3.9.2)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (1.2.0)
Requirement already satisfied: cycler>=0.10 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (4.51.0)
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (1.4.4)
Requirement already satisfied: packaging>=20.0 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (24.1)
Requirement already satisfied: pillow>=8 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (10.4.0)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (3.1.2)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from pandas>=1.2->seaborn) (2024.1)
Requirement already satisfied: tzdata>=2022.7 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from pandas>=1.2->seaborn) (2023.3)
Requirement already satisfied: six>=1.5 in c:\users\lenovo\anaconda3\anaconda\lib\site-packages (from python-dateutil>=2.7->matplotlib!=3.6.1,>=3.4->seaborn) (1.16.0)
Note: you may need to restart the kernel to use updated packages.
```

```
In [3]: import seaborn as sns
```

```
In [4]: import warnings
warnings.filterwarnings('ignore', category=FutureWarning)
```

```
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
```

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

In [10]: `tips.to_csv("tips_dataset.csv", index=False)`  
`import pandas as pd`

In [11]: `import os`  
`os.getcwd()`

Out[11]: 'c:\\Users\\Lenovo\\OneDrive\\Desktop\\Python\\Seaborn\_Bootcamp'

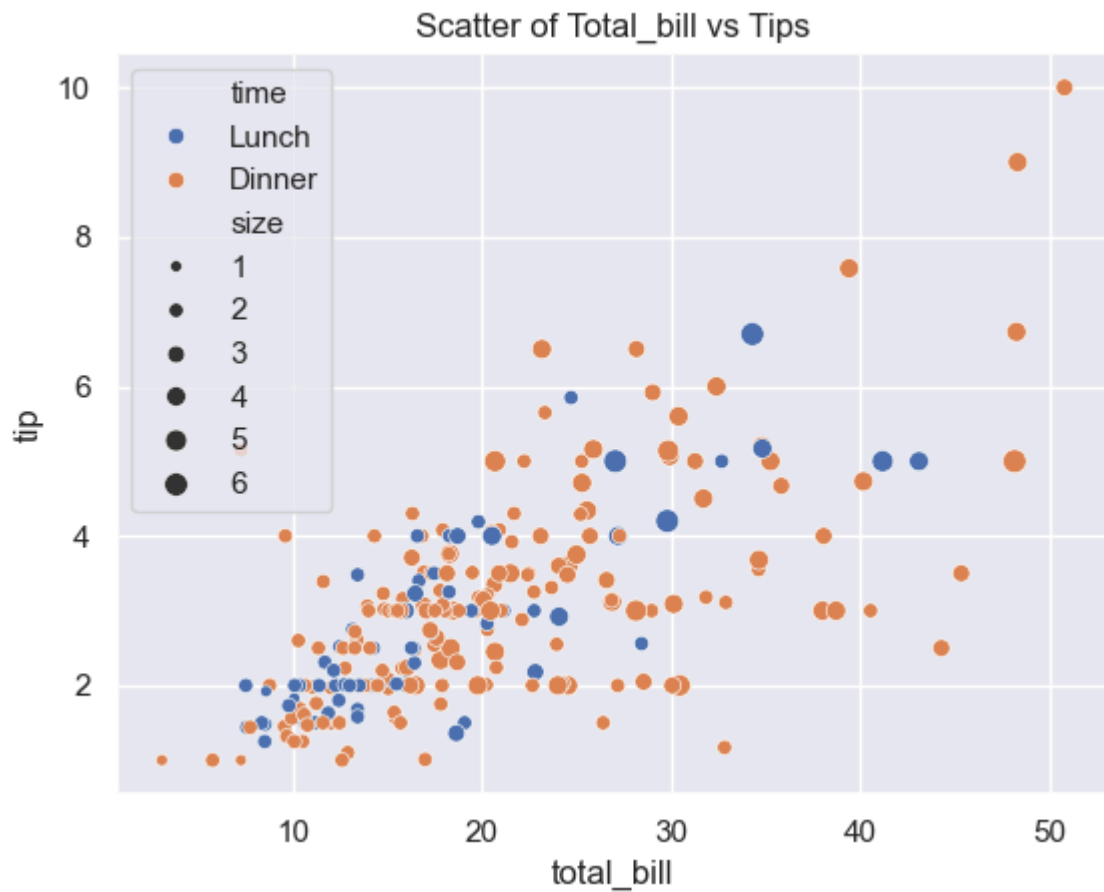
In [12]: `import matplotlib.pyplot as plt`

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

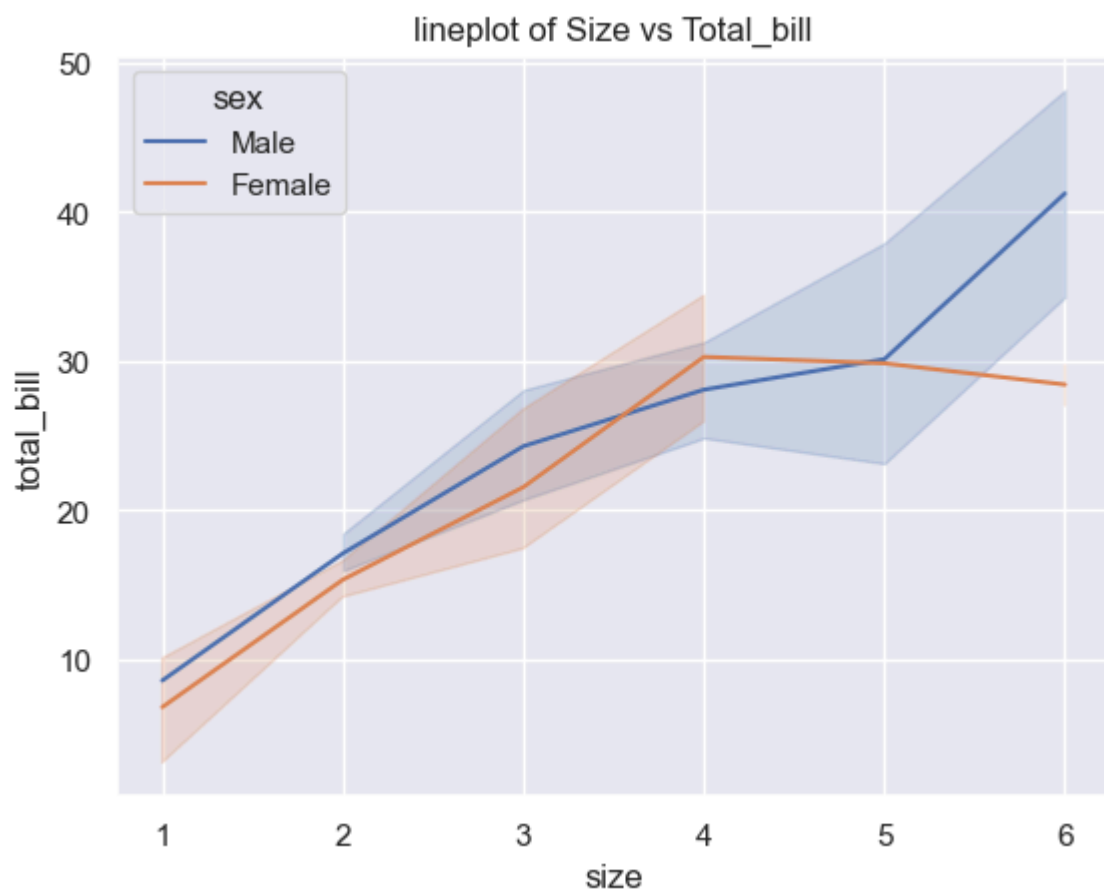
Out[13]: <Figure size 800x600 with 0 Axes>

<Figure size 800x600 with 0 Axes>

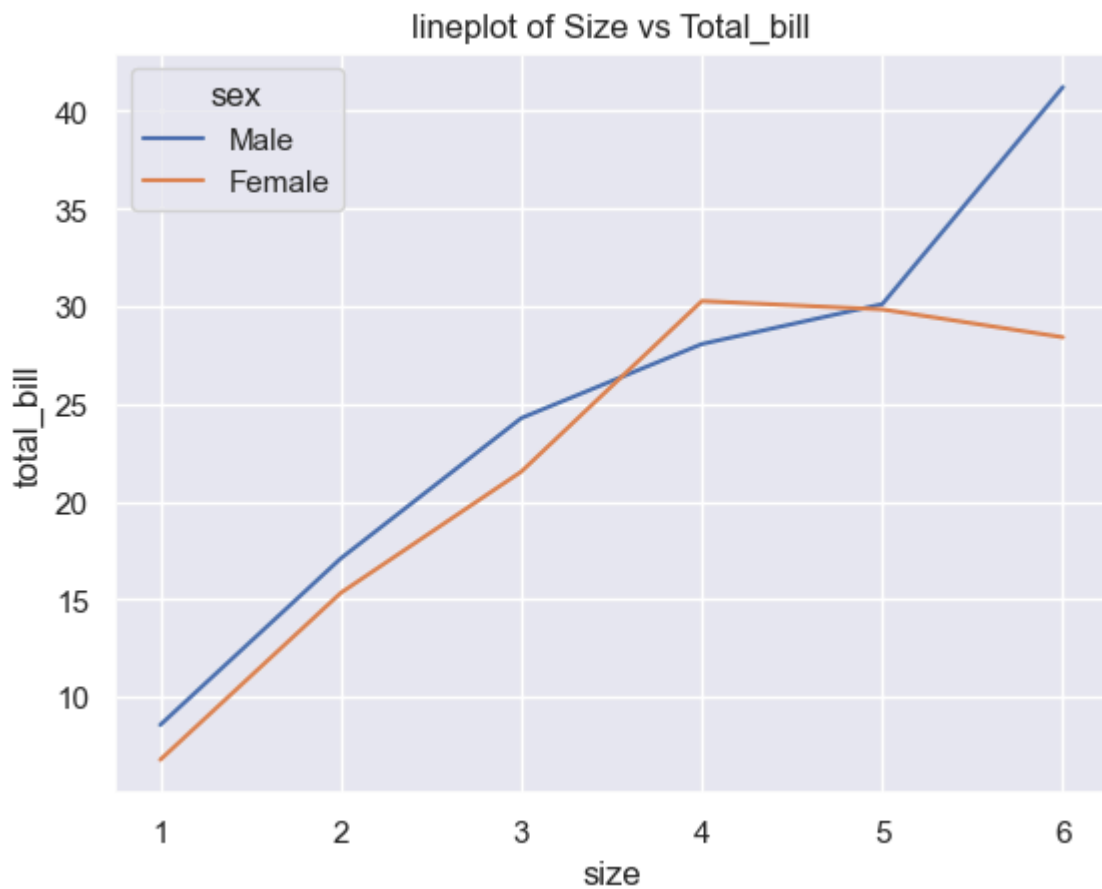
In [14]: `# scatterplot`  
`sns.scatterplot(data=tips, x="total_bill", y="tip", size="size", hue="time", palette="magma")`  
`plt.title("Scatter of Total_bill vs Tips")`  
`plt.show()`



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



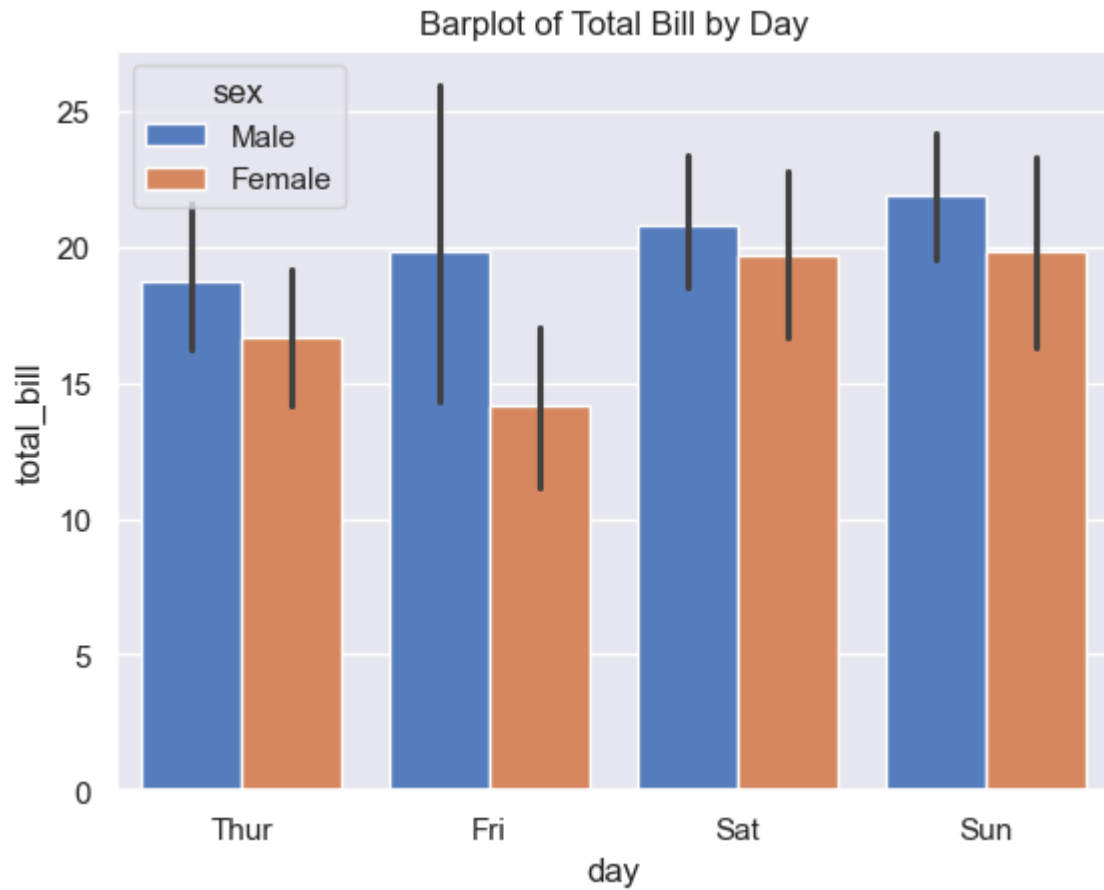
```
In [16]: # lineplot
sns.lineplot(data=tips, x="size", y="total_bill", hue="sex", ci=None, markers='o')
plt.title("lineplot of Size vs Total_bill")
plt.show()
```



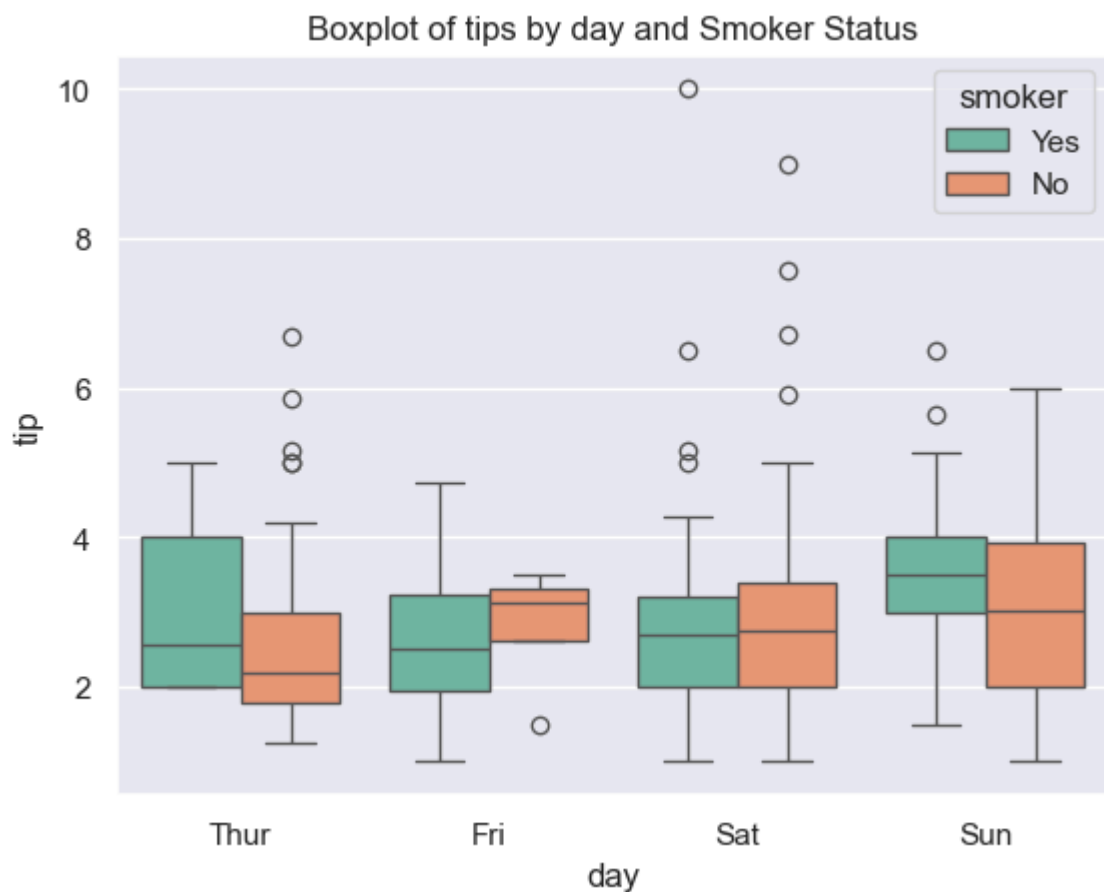
```
In [17]: tips.columns
```

```
Out[17]: Index(['total_bill', 'tip', 'sex', 'smoker', 'day', 'time', 'size'], dtype='object')
```

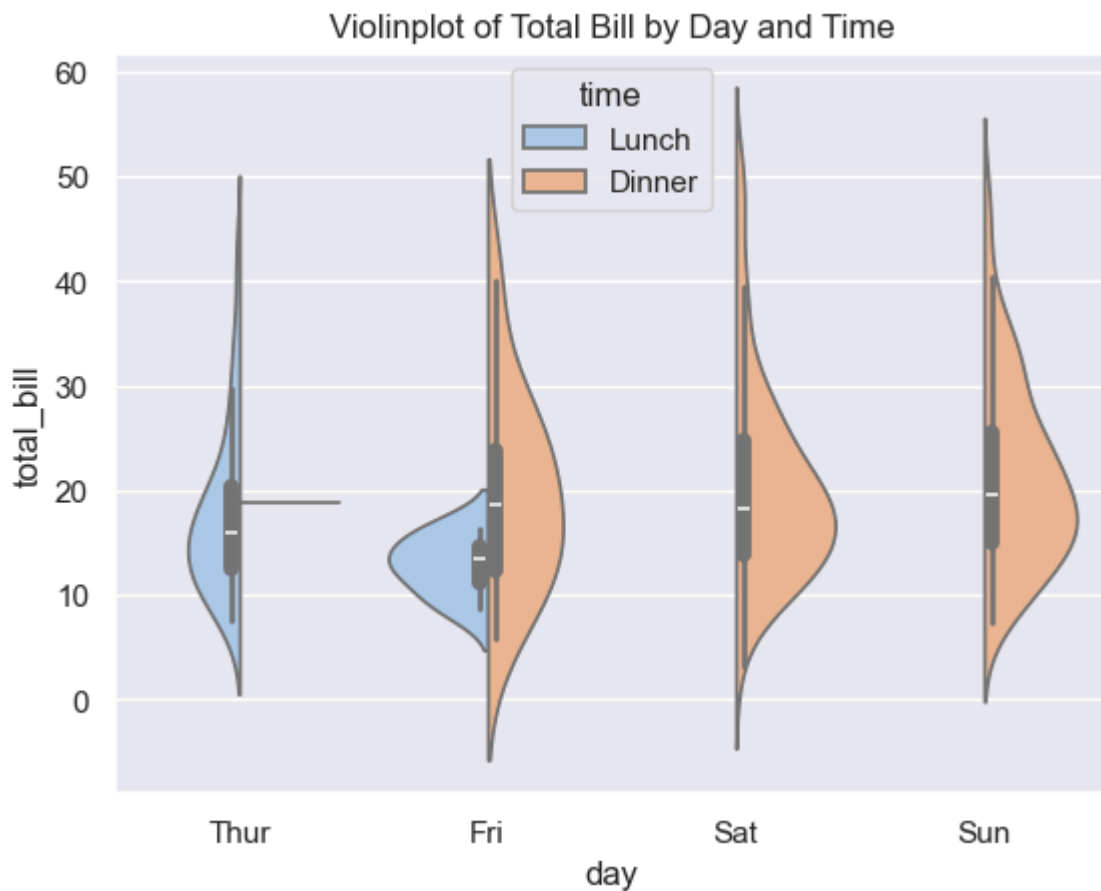
```
In [18]: # barplot
sns.barplot(data=tips, x="day", y="total_bill", hue="sex", palette="muted")
plt.title("Barplot of Total Bill by Day")
plt.show()
```



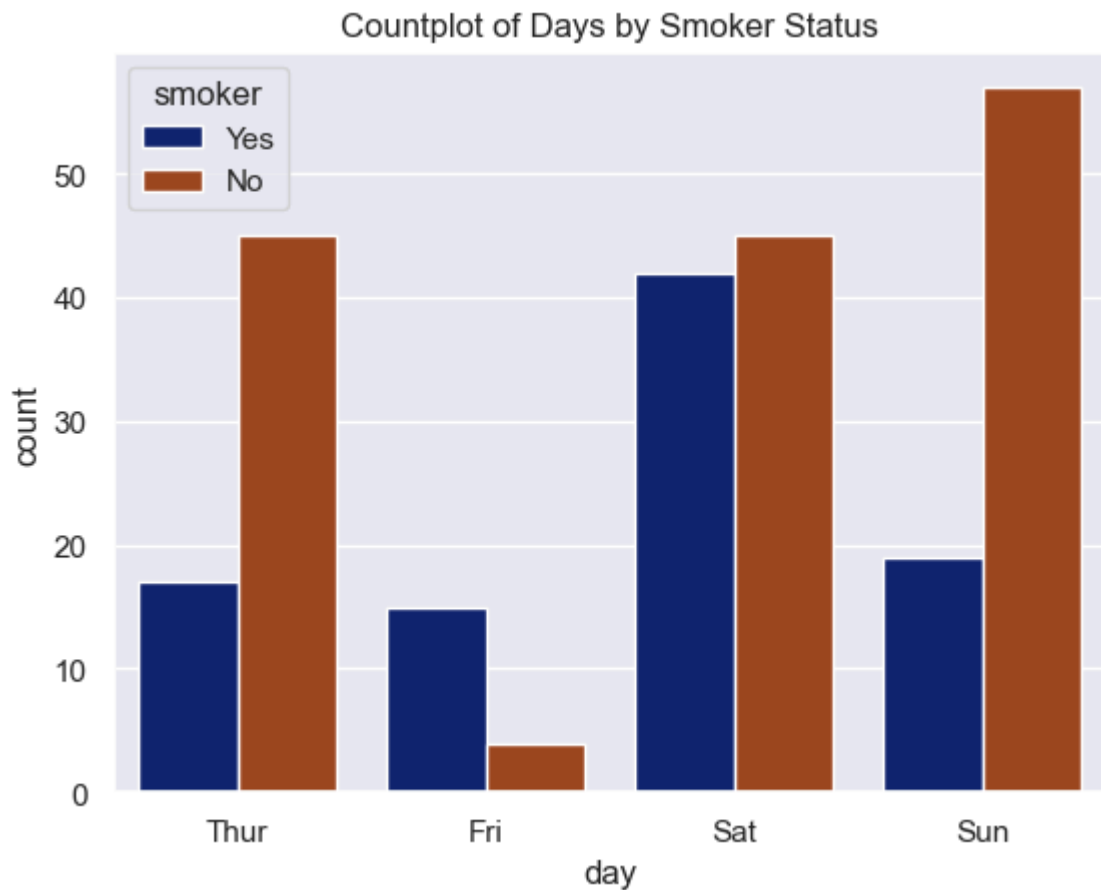
```
In [19]: # 4. boxplot
sns.boxplot(data=tips, x="day", y="tip", hue="smoker", palette="Set2")
plt.title("Boxplot of tips by day and Smoker Status")
plt.show()
```



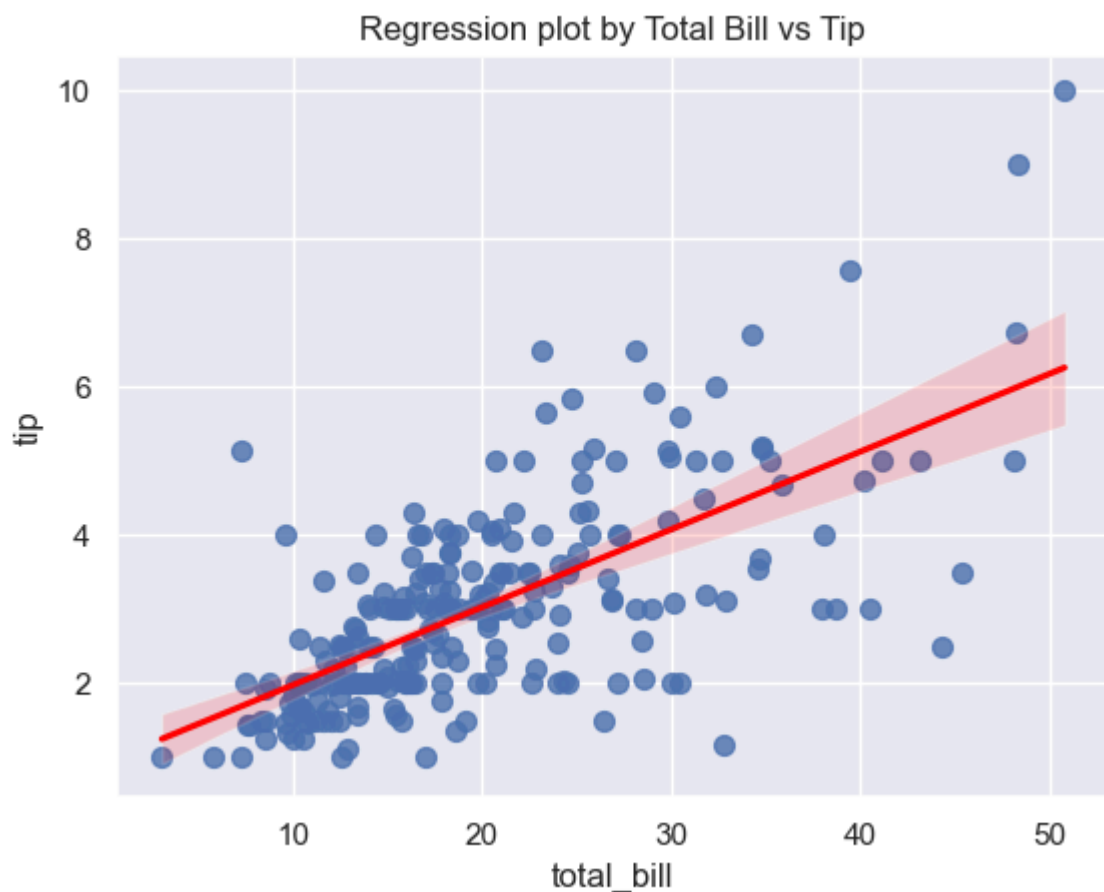
```
In [20]: #5 Violinplot
sns.violinplot(data=tips, x="day", y="total_bill", hue="time", split=True, palette=
plt.title("Violinplot of Total Bill by Day and Time")
plt.show()
```



```
In [21]: #6 countplot
sns.countplot(data=tips, x="day", hue="smoker", palette="dark")
plt.title("Countplot of Days by Smoker Status")
plt.show()
```

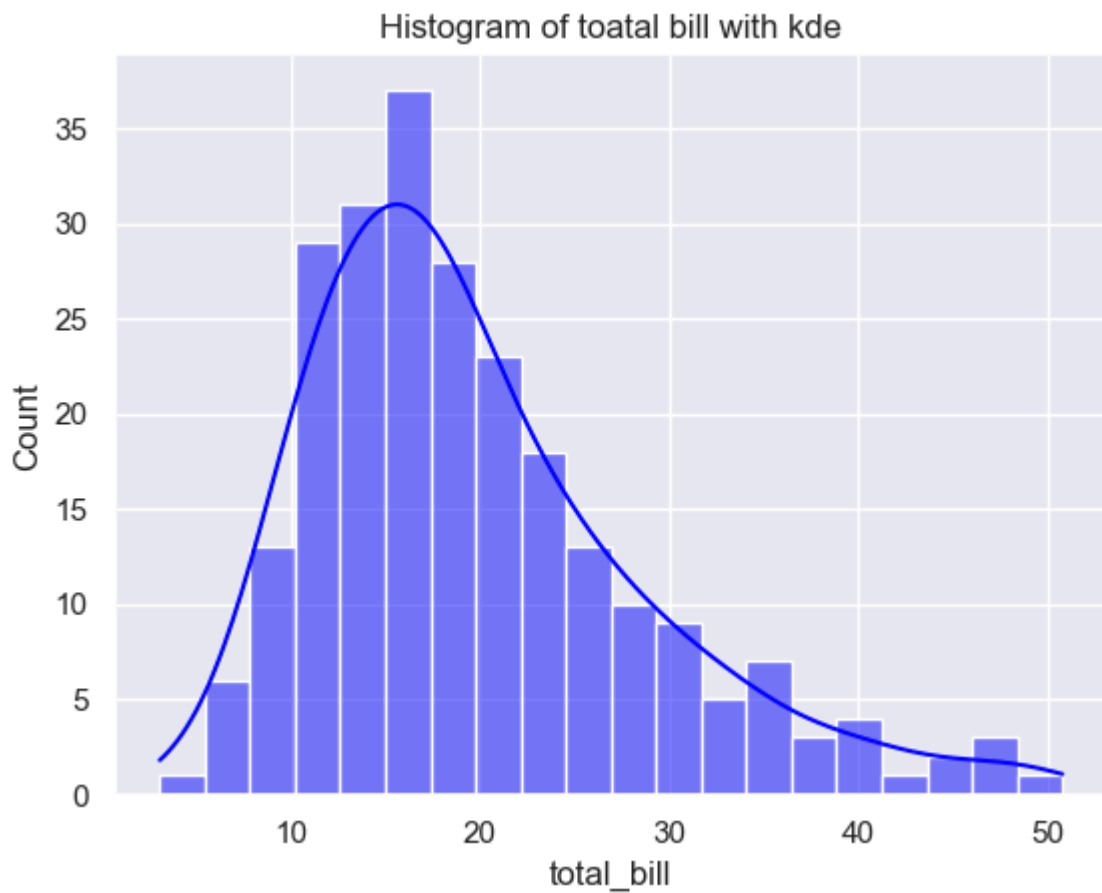


```
In [ ]: #7 regressionplot
sns.regplot(data=tips, x="total_bill", y="tip", scatter_kws={'s':50}, line_kws={
plt.title("Regression plot by Total Bill vs Tip")
plt.show()
```

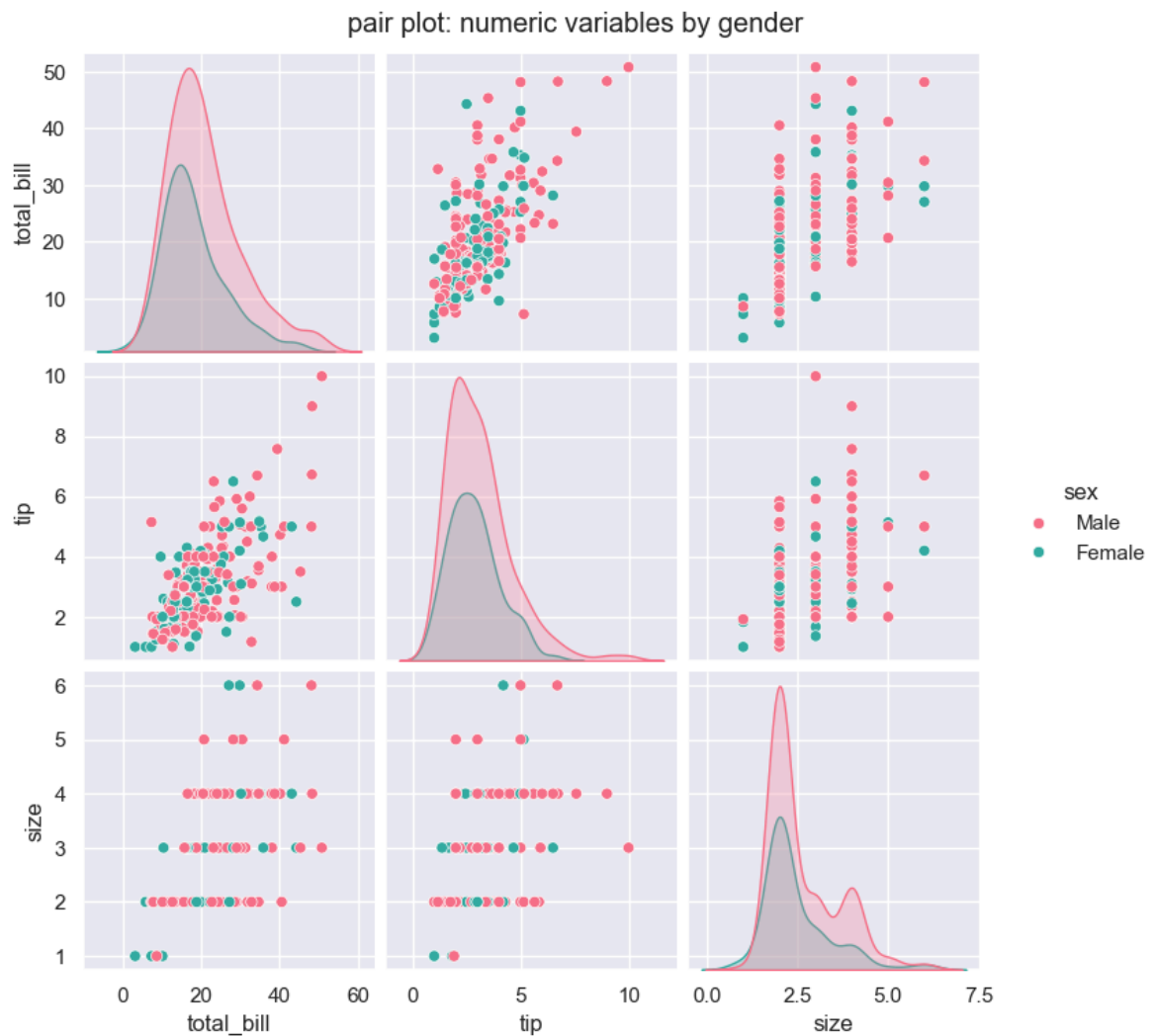




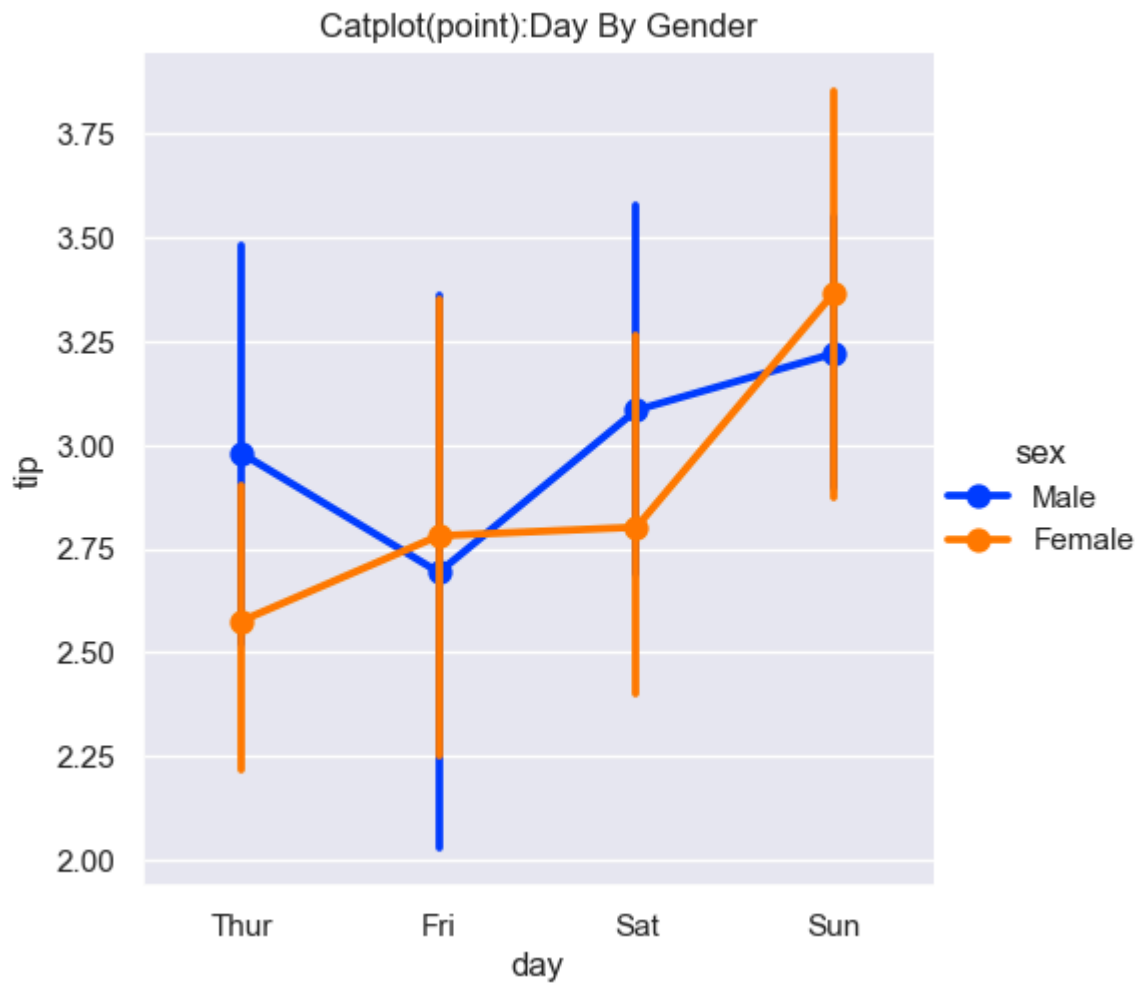
```
In [23]: #8 Histogram
sns.histplot(data=tips, x="total_bill", bins=20, kde=True, color='blue')
plt.title("Histogram of toatal bill with kde")
plt.show()
```



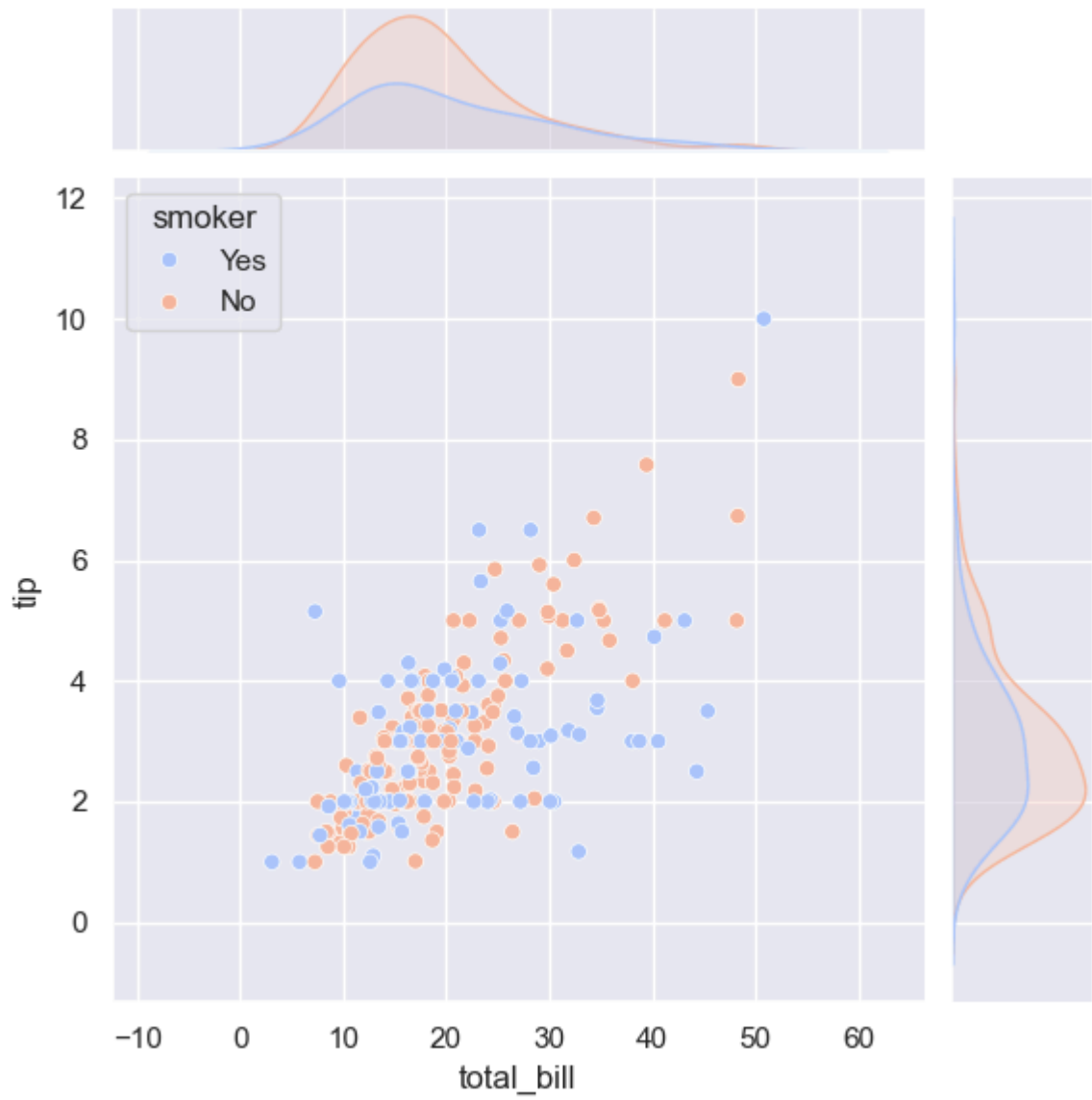
```
In [24]: #9 Pairplot
sns.pairplot(tips, hue='sex', vars=["total_bill", "tip", "size"], palette='husl')
plt.suptitle("pair plot: numeric variables by gender", y=1.02)
plt.show()
```



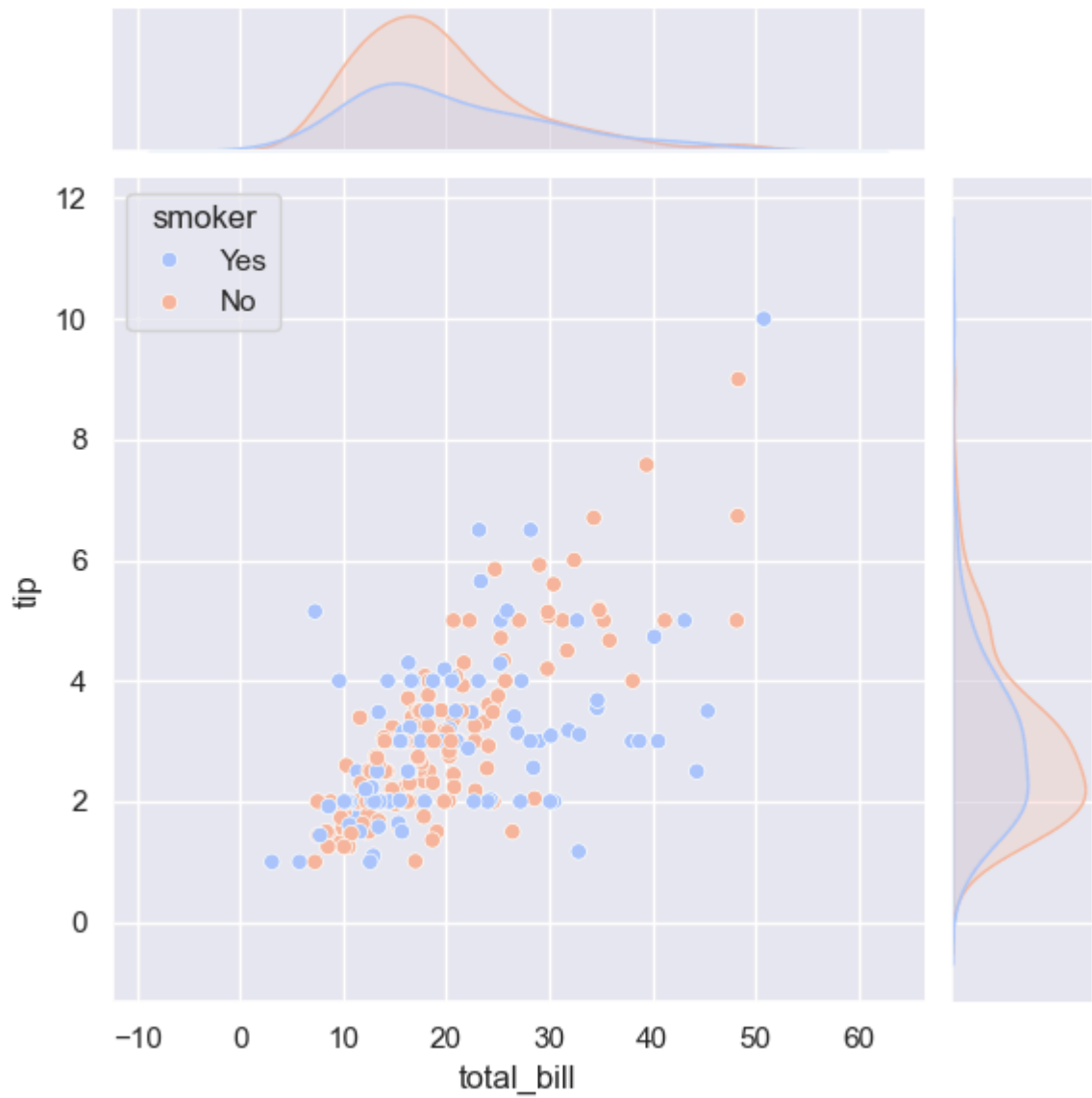
```
In [26]: # catplot
sns.catplot(data=tips, x="day", y="tip", hue="sex", kind="point", palette="bright")
plt.title("Catplot(point):Day By Gender")
plt.show()
```



```
In [28]: #11 Jointplot
sns.jointplot(data=tips, x="total_bill", y="tip", hue="smoker", kind="scatter",
plt.title("Jointplot: Total Bill vs Tips", y=1.02)
plt.show()
```

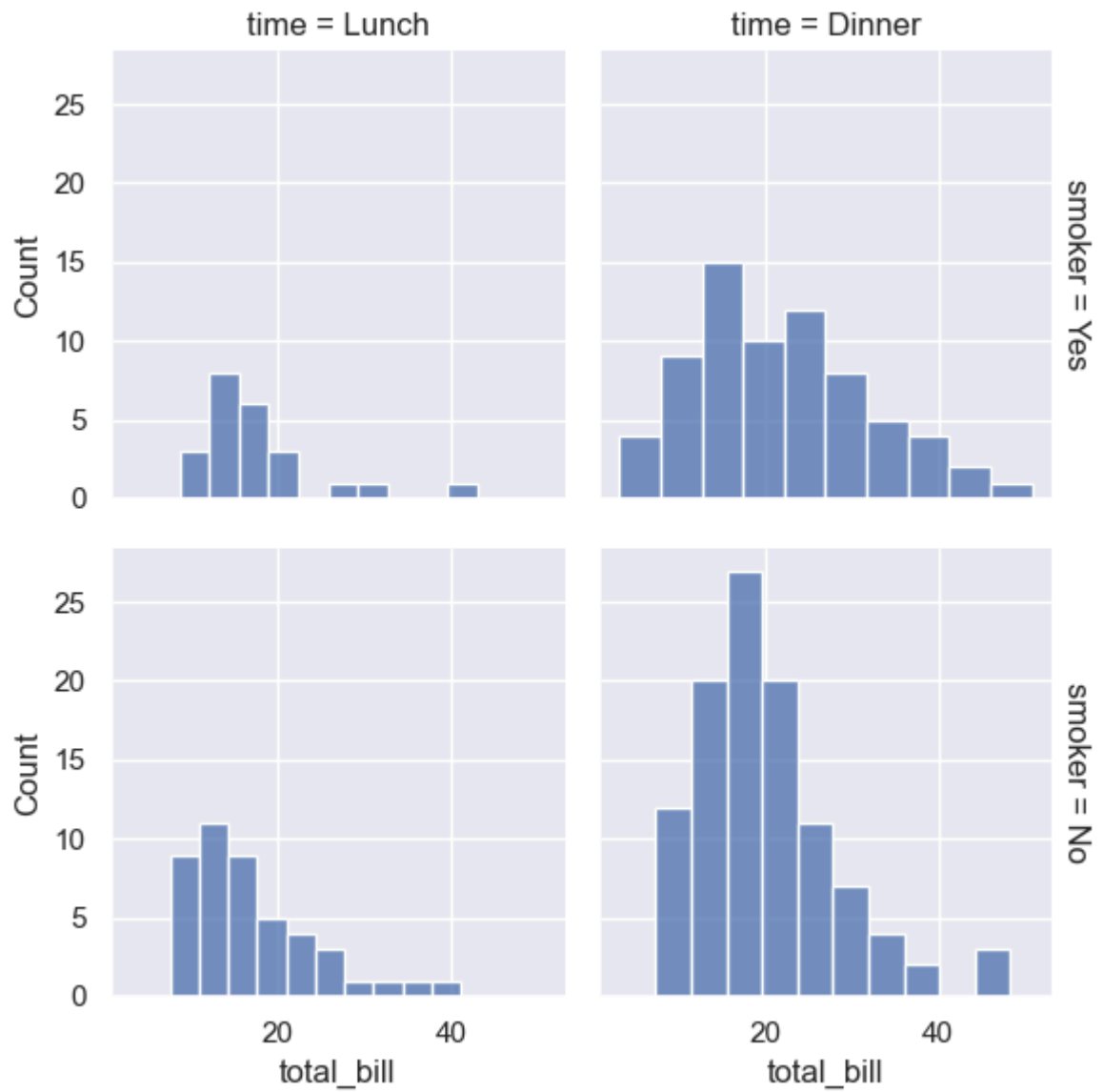


```
In [29]: #11 Jointplot
sns.jointplot(data=tips, x="total_bill", y="tip", hue="smoker", kind="scatter",
plt.title("Jointplot: Total Bill vs Tips", y=1.02)
plt.show()
```

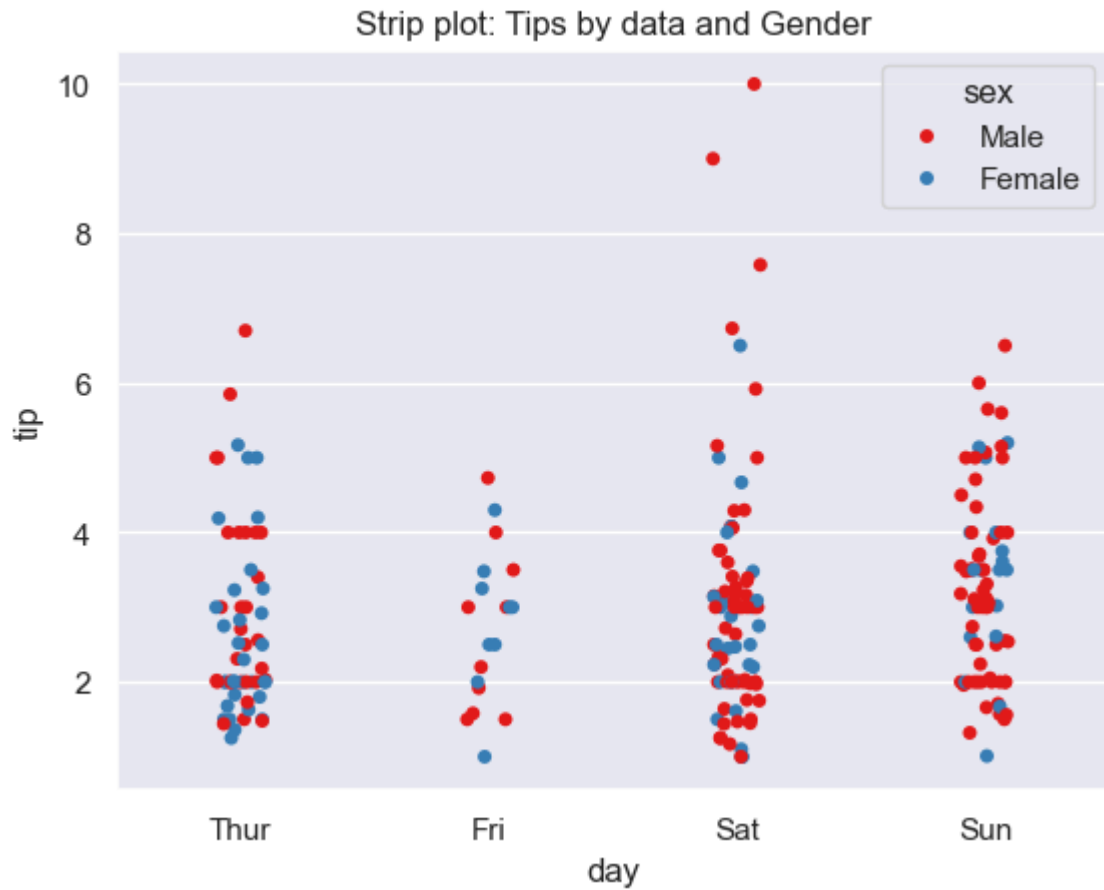


```
In [31]: # facetgrid
g = sns.FacetGrid(tips, col="time", row="smoker", margin_titles=True).map(sns.hist)
```

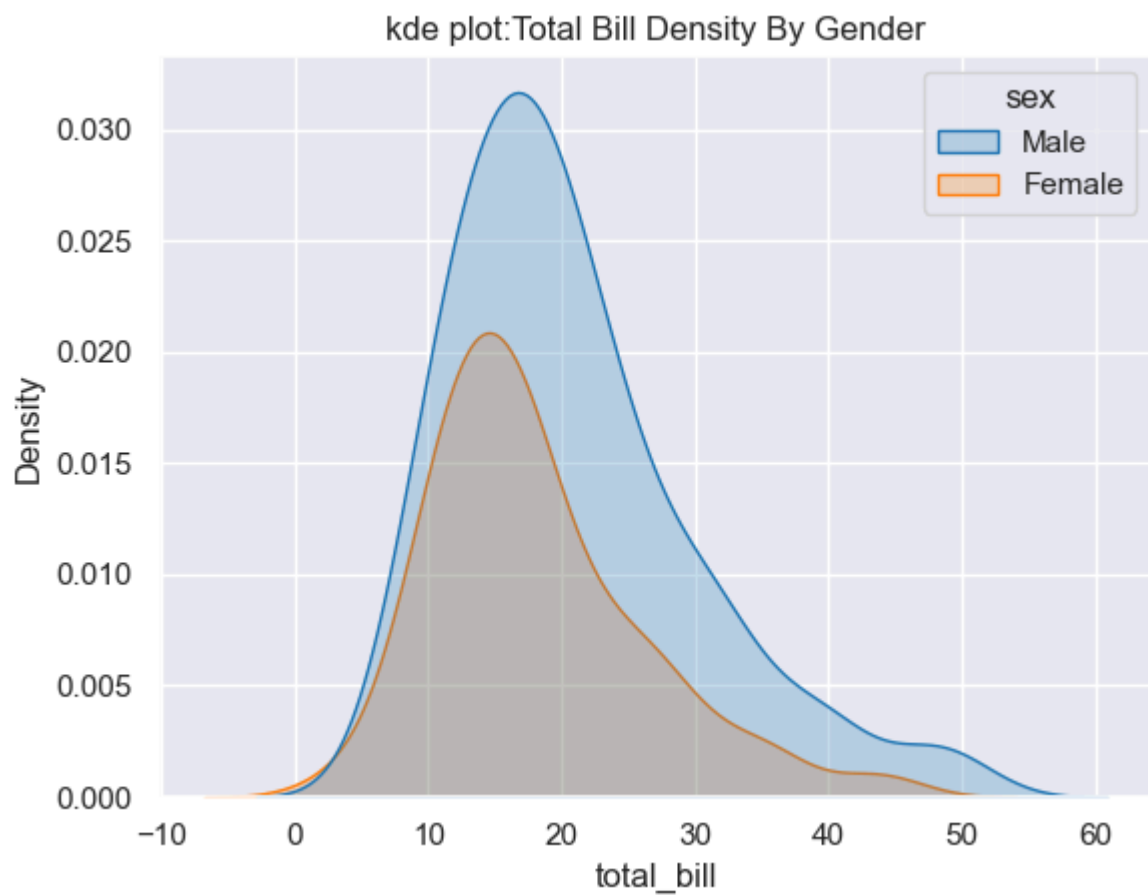
```
Out[31]: <seaborn.axisgrid.FacetGrid at 0x242f87bdfa0>
```



```
In [32]: # 13 strip plot
sns.stripplot(data=tips, x="day", y="tip", hue="sex", jitter=True, palette="Set1")
plt.title("Strip plot: Tips by data and Gender")
plt.show()
```



```
In [34]: # 14 KDE plot
sns.kdeplot(data=tips, x="total_bill", hue="sex", fill=True, palette="tab10")
plt.title("kde plot:Total Bill Density By Gender")
plt.show()
```



```
In [ ]: # Data analyst we developed graphs  
# i have repregent these graphs to my manager, leader, client  
# Also i should deliver and explain code should not required
```

```
In [35]: # SEABORN CODE DEVELOPMENT HAS DONE
```

```
In [ ]:
```