

```
In [1]: # pip install -- upgrade seaborn
```

```
In [2]: import warnings
warnings.filterwarnings('ignore', category=FutureWarning)
import seaborn as sns
```

```
In [3]: import matplotlib.pyplot as plt
```

```
In [4]: sns.get_dataset_names()
```

```
Out[4]: ['anagrams',
         'anscombe',
         'attention',
         'brain_networks',
         'car_crashes',
         'diamonds',
         'dots',
         'dowjones',
         'exercise',
         'flights',
         'fmri',
         'geyser',
         'glue',
         'healthexp',
         'iris',
         'mpg',
         'penguins',
         'planets',
         'seaice',
         'taxi',
         'tips',
         'titanic']
```

```
In [5]: tips = sns.load_dataset("tips")
sns.set_theme(style='darkgrid')
```

```
In [6]: tips
```

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
...
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 [7]: `tips.to_csv("tips_dataset.csv", index = False)`

In [8]: `import os`
`os.getcwd()`

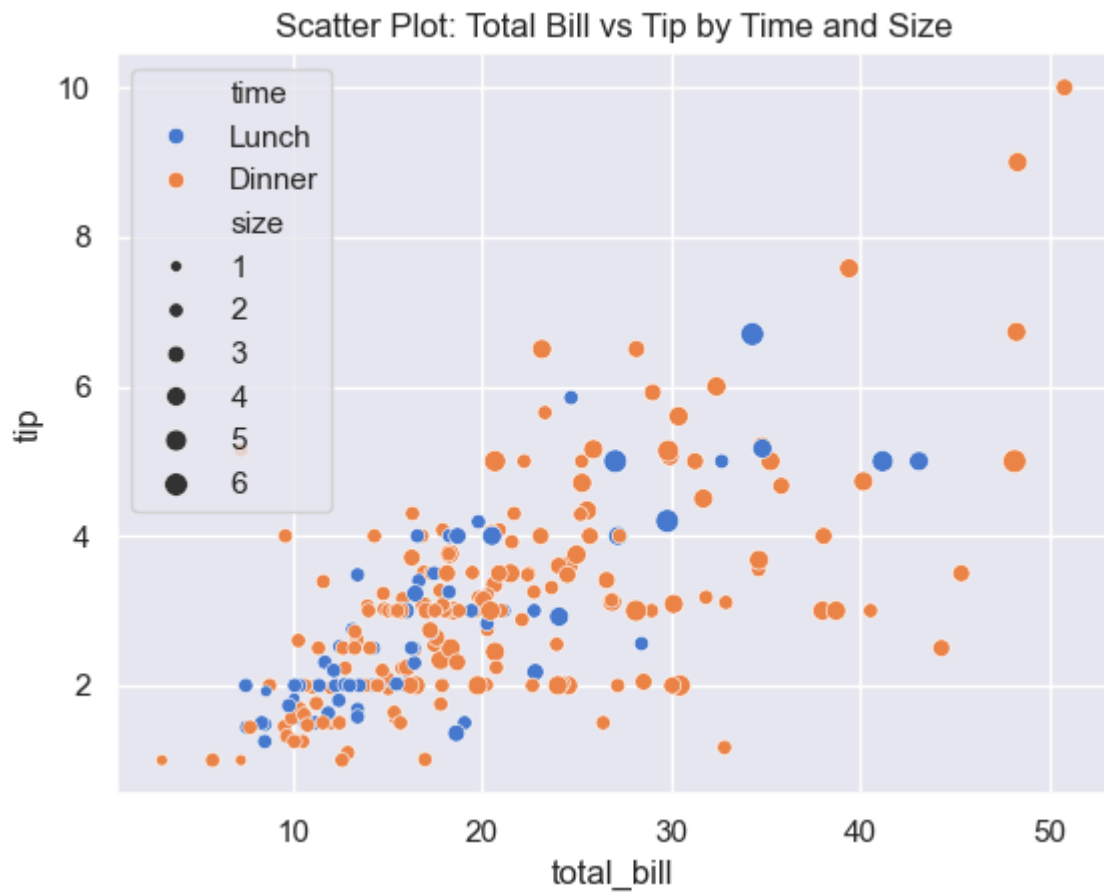
Out[8]: 'C:\\Users\\shaik'

In [9]: `plt.figure(figsize =(8,6))`

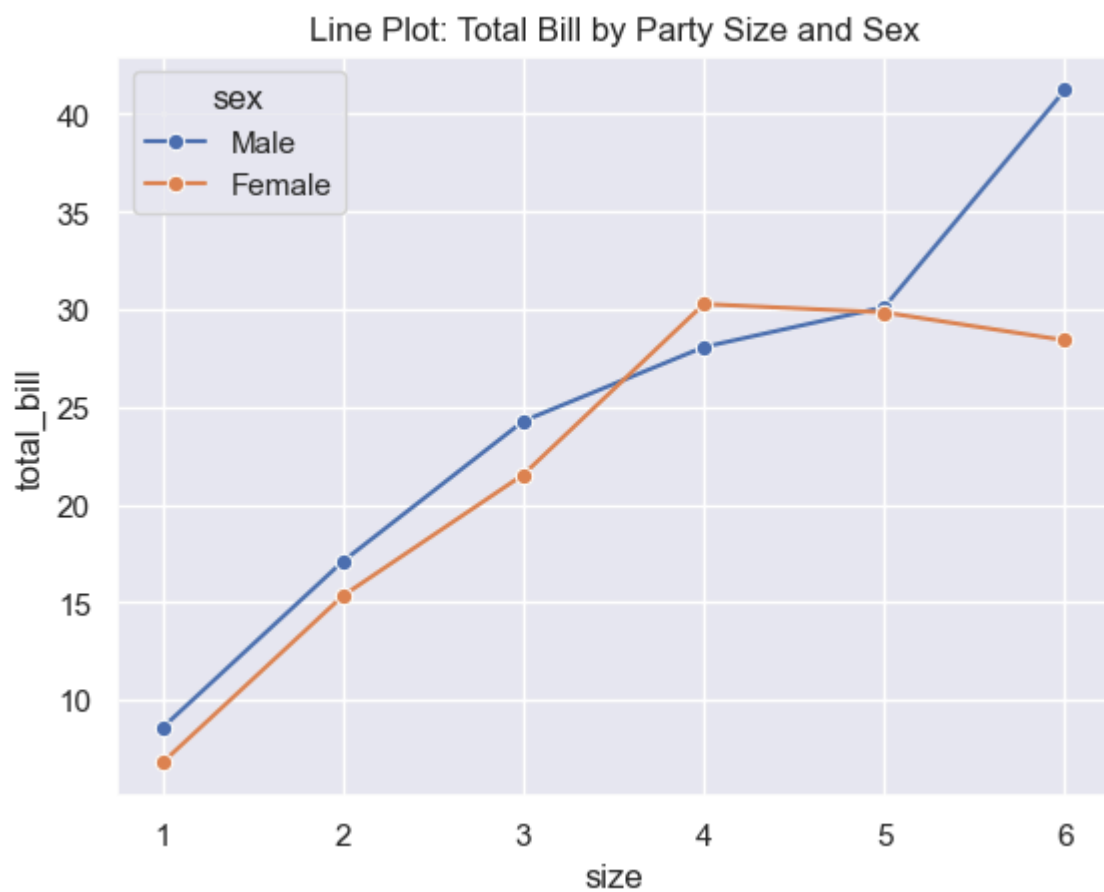
Out[9]: <Figure size 800x600 with 0 Axes>

<Figure size 800x600 with 0 Axes>

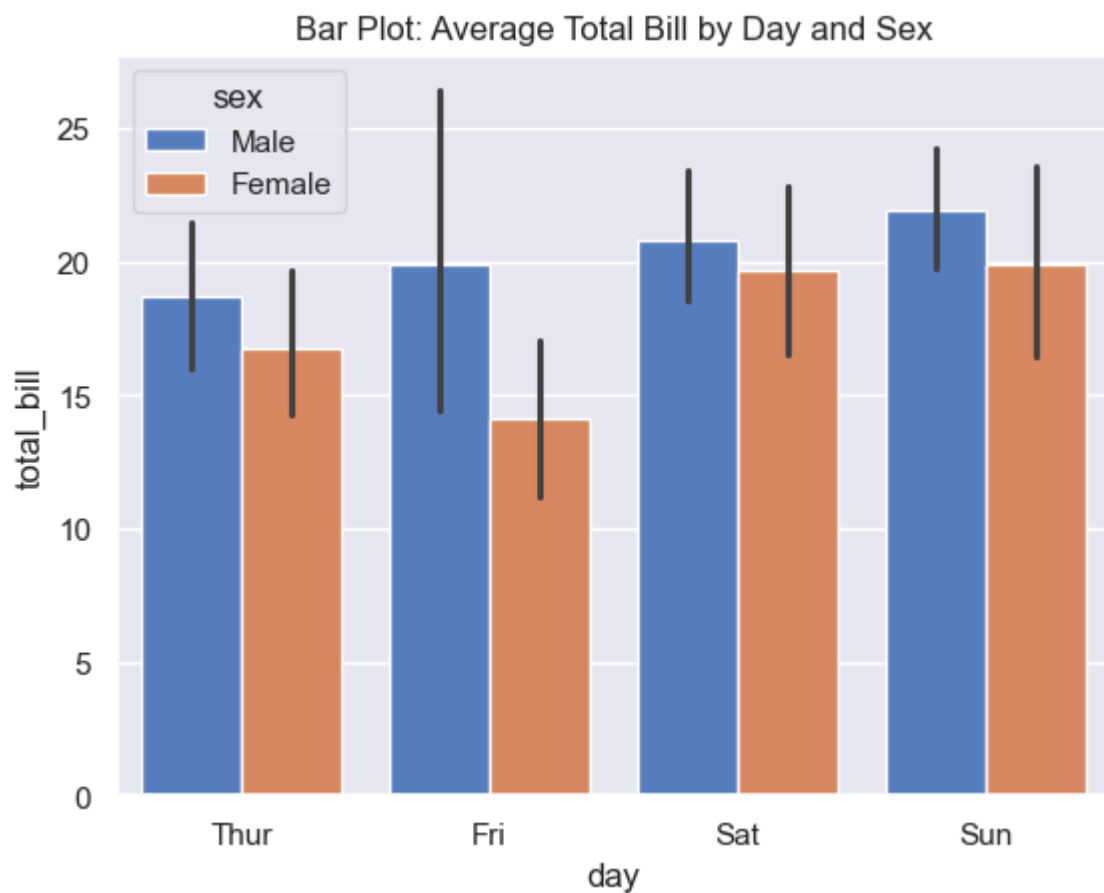
In [10]: `sns.scatterplot(data=tips, x="total_bill", y="tip", hue="time", size="size", palette="m",`
`plt.title("Scatter Plot: Total Bill vs Tip by Time and Size");`



```
In [11]: sns.lineplot(data=tips, x="size", y="total_bill", hue="sex", ci=None, marker="o")  
plt.title("Line Plot: Total Bill by Party Size and Sex");
```



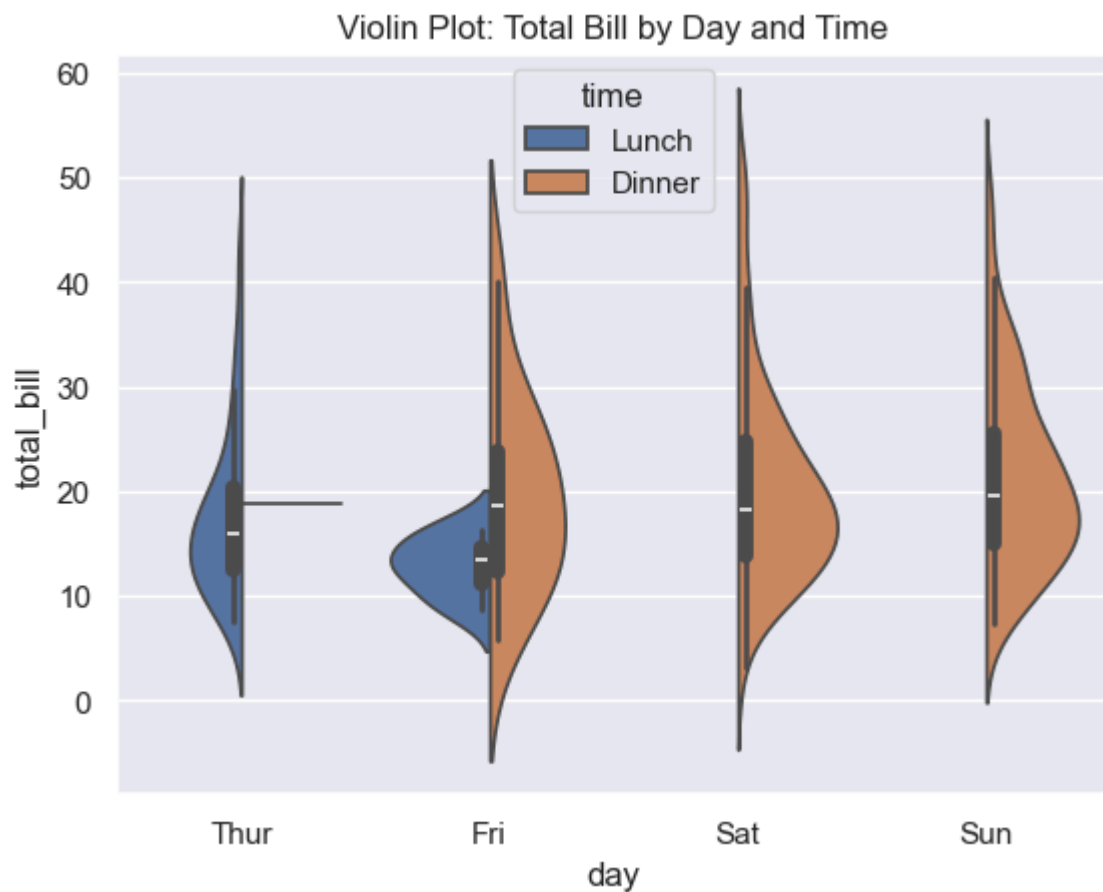
```
In [12]: sns.barplot(data=tips, x="day", y="total_bill", hue="sex", palette="muted")
plt.title("Bar Plot: Average Total Bill by Day and Sex")
plt.show()
```



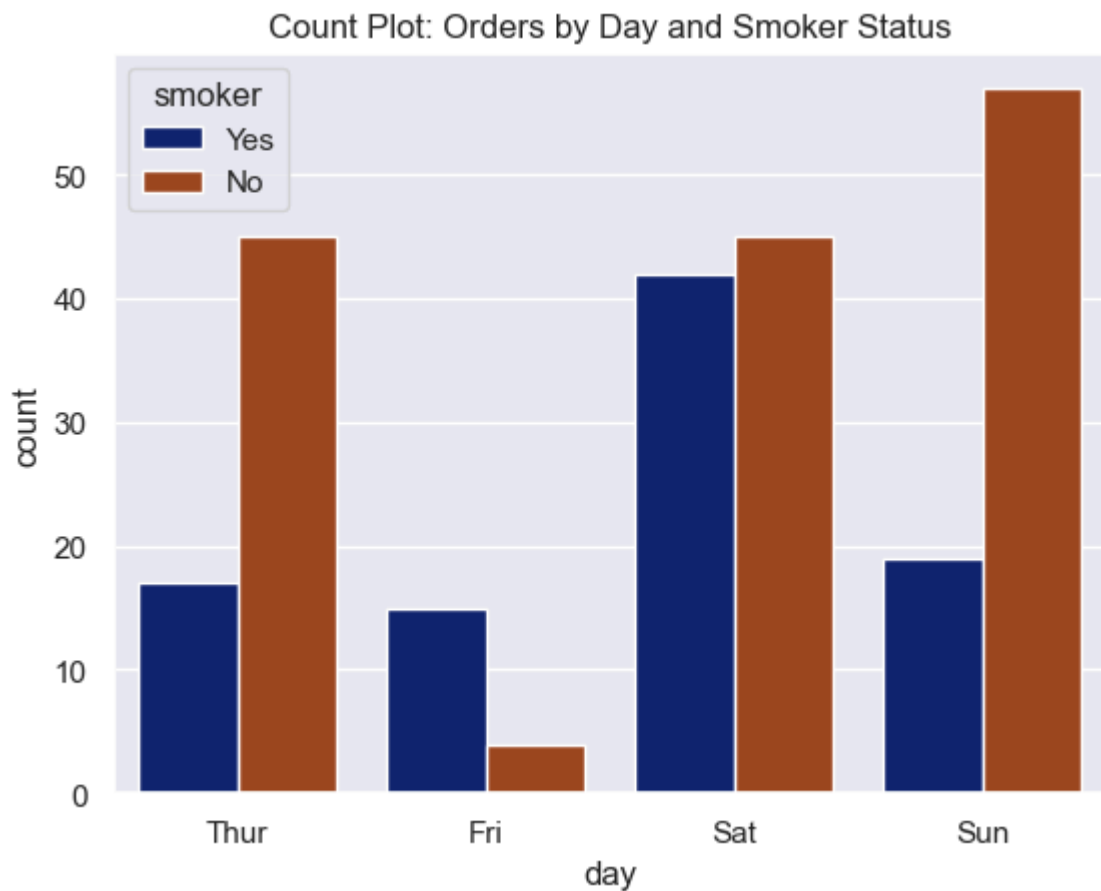
```
In [13]: sns.boxplot(data=tips, x="day", y="tip", hue="smoker", palette="Set2")
plt.title("Box Plot: Tips by Day and Smoker Status")
plt.show()
```



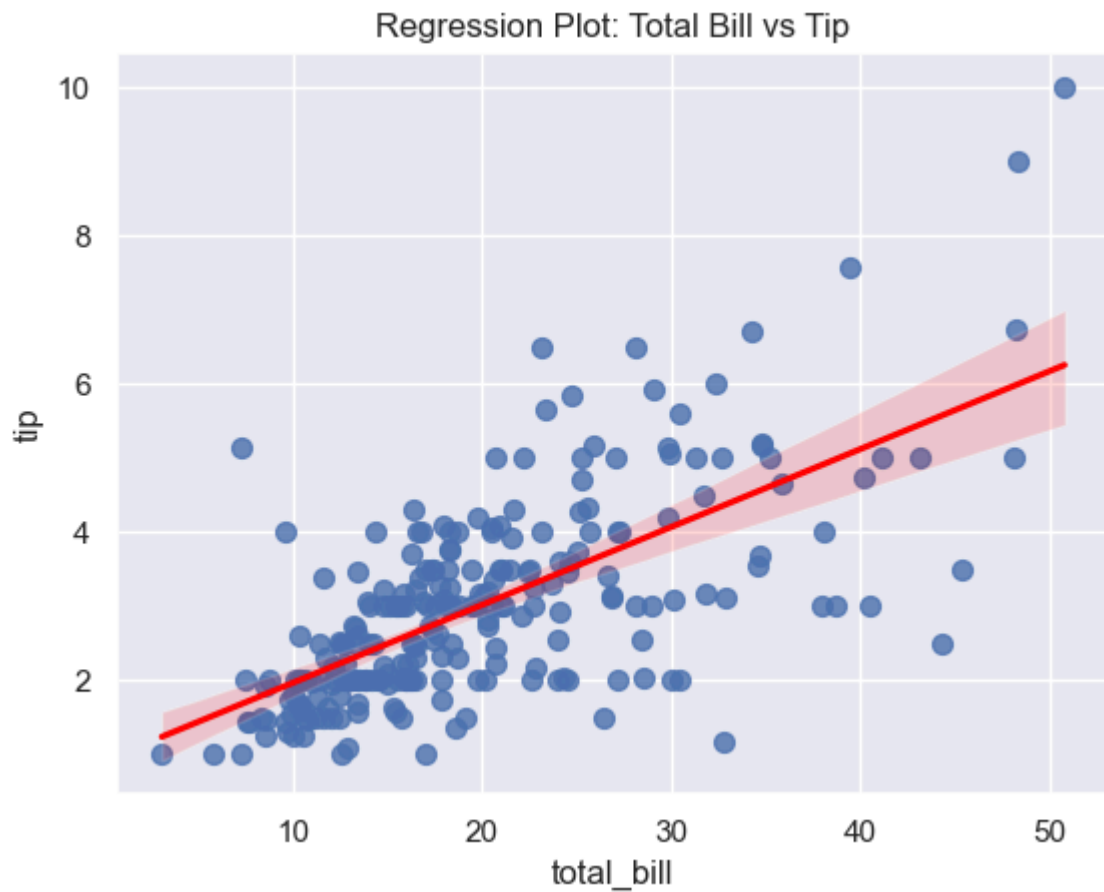
```
In [14]: sns.violinplot(data=tips, x="day", y="total_bill", hue="time", split=True)
plt.title("Violin Plot: Total Bill by Day and Time")
plt.show()
```



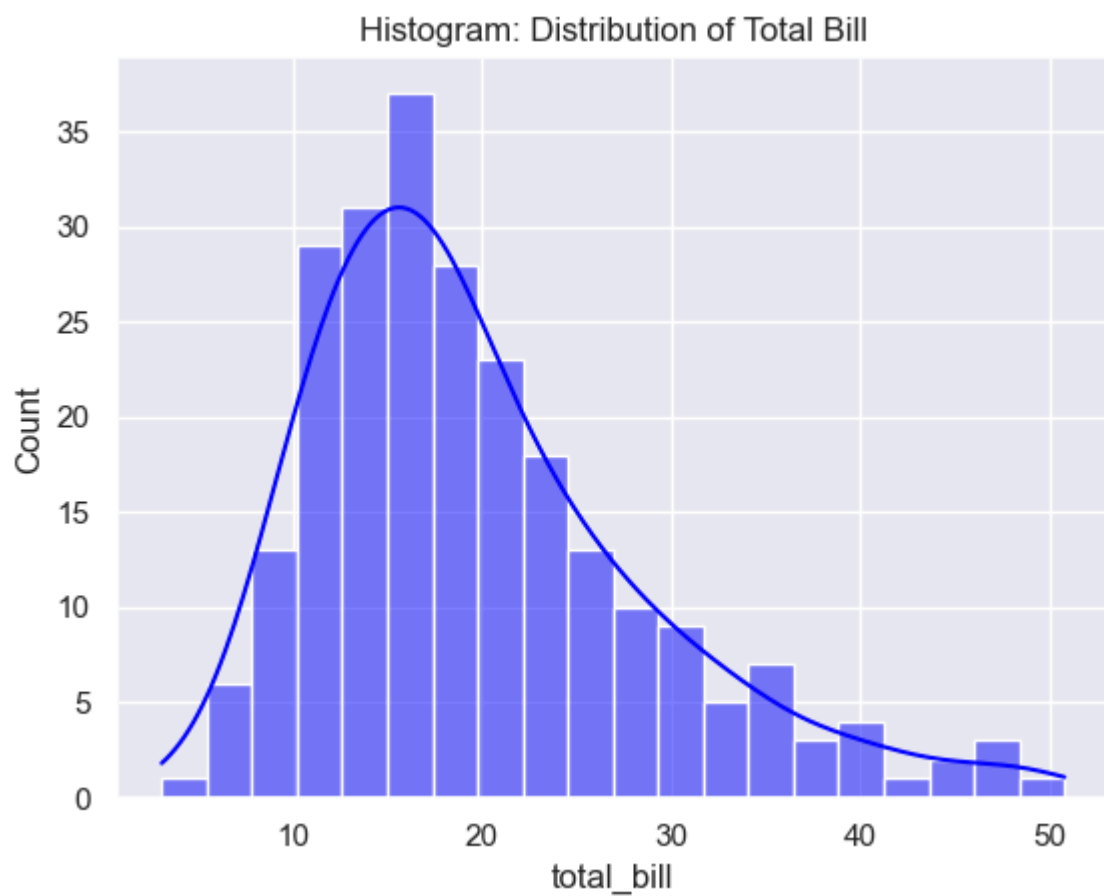
```
In [15]: sns.countplot(data=tips, x="day", hue="smoker", palette="dark")  
plt.title("Count Plot: Orders by Day and Smoker Status")  
plt.show()
```



```
In [16]: sns.regplot(data=tips, x="total_bill", y="tip", scatter_kws={"s": 50}, line_kws=  
plt.title("Regression Plot: Total Bill vs Tip")  
plt.show()
```



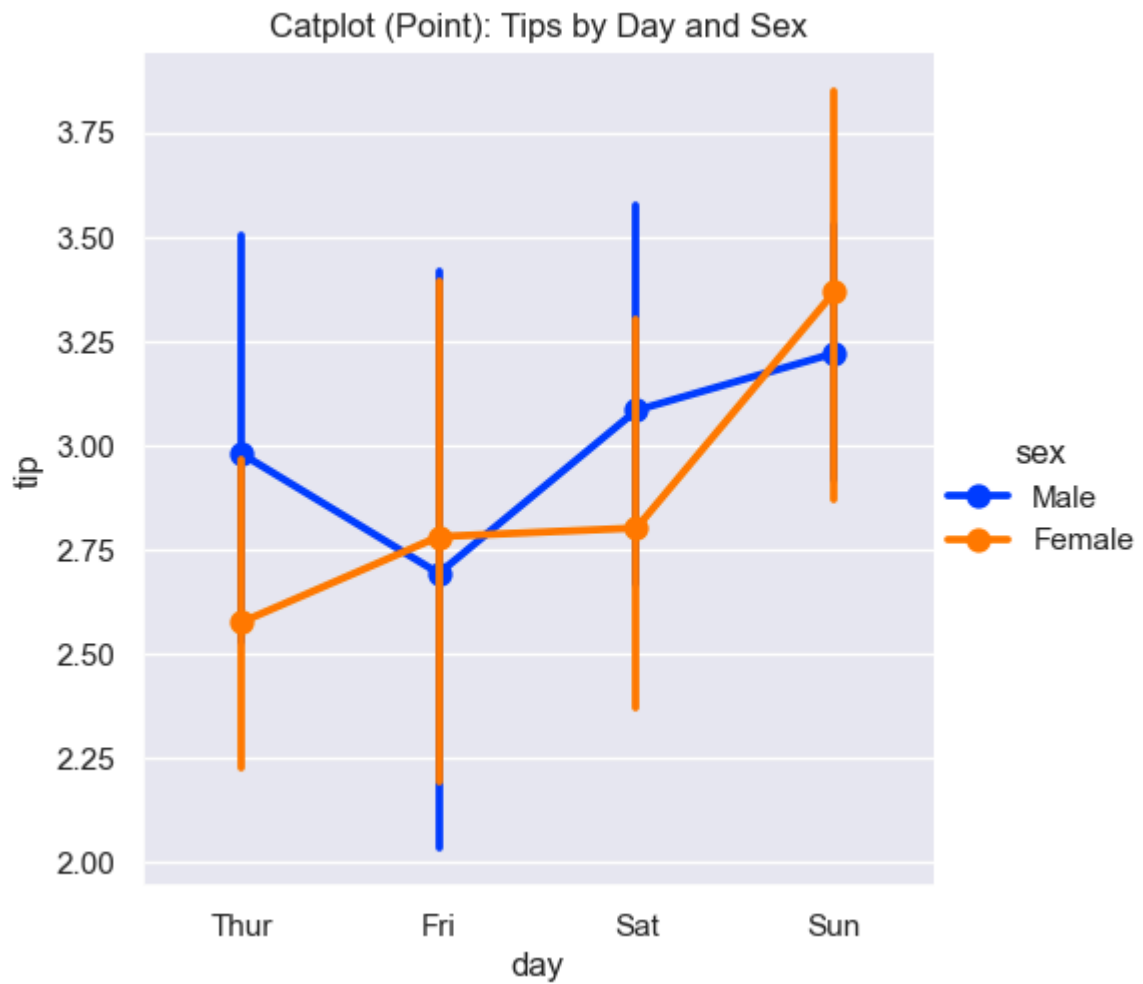
```
In [17]: sns.histplot(data=tips, x="total_bill", kde=True, bins=20, color="blue")
plt.title("Histogram: Distribution of Total Bill")
plt.show()
```



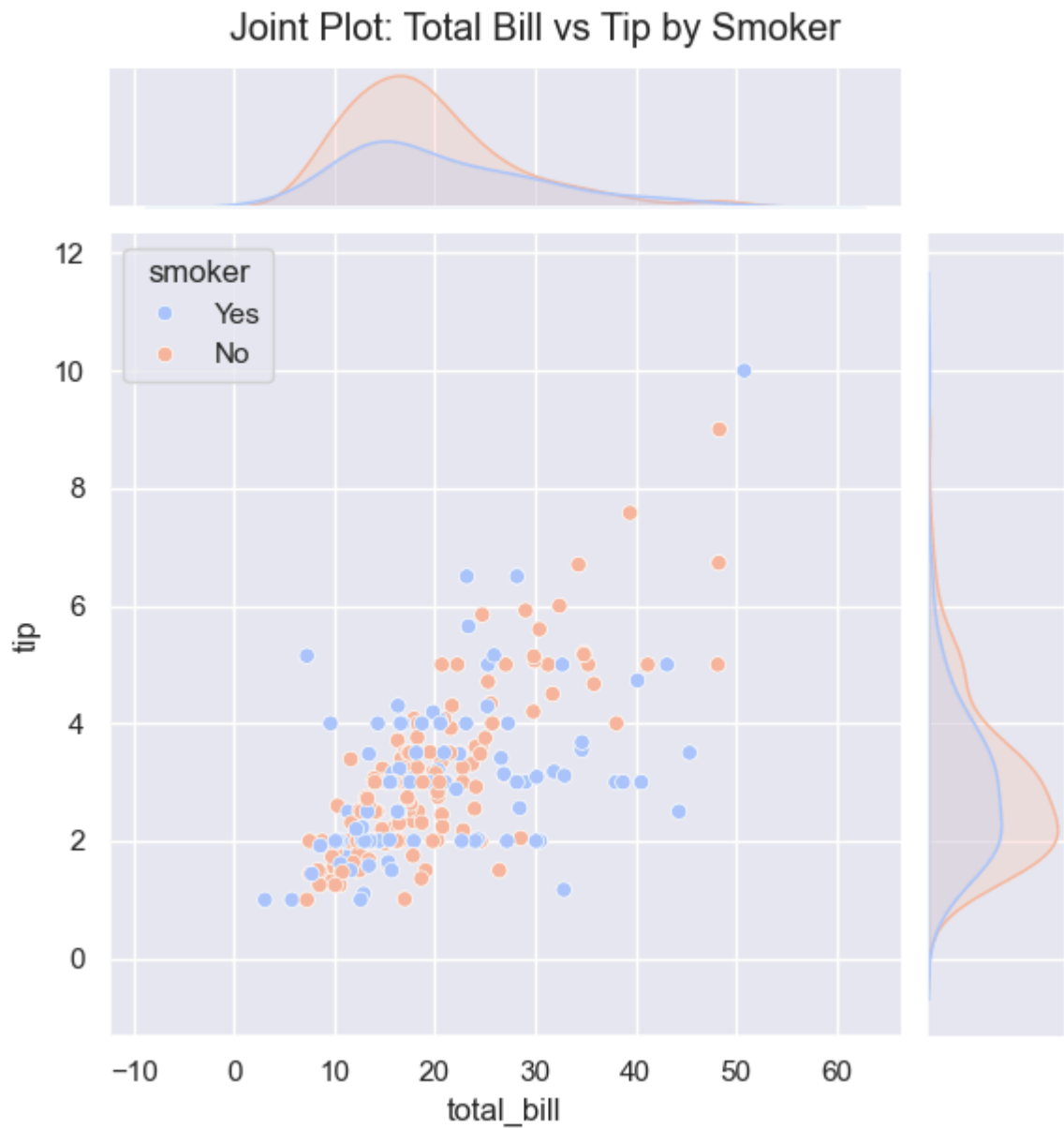
```
In [18]: sns.pairplot(tips, hue="sex", vars=["total_bill", "tip", "size"], palette="husl"
plt.suptitle("Pair Plot: Numerical Variables by Sex", y=1.02)
plt.show()
```



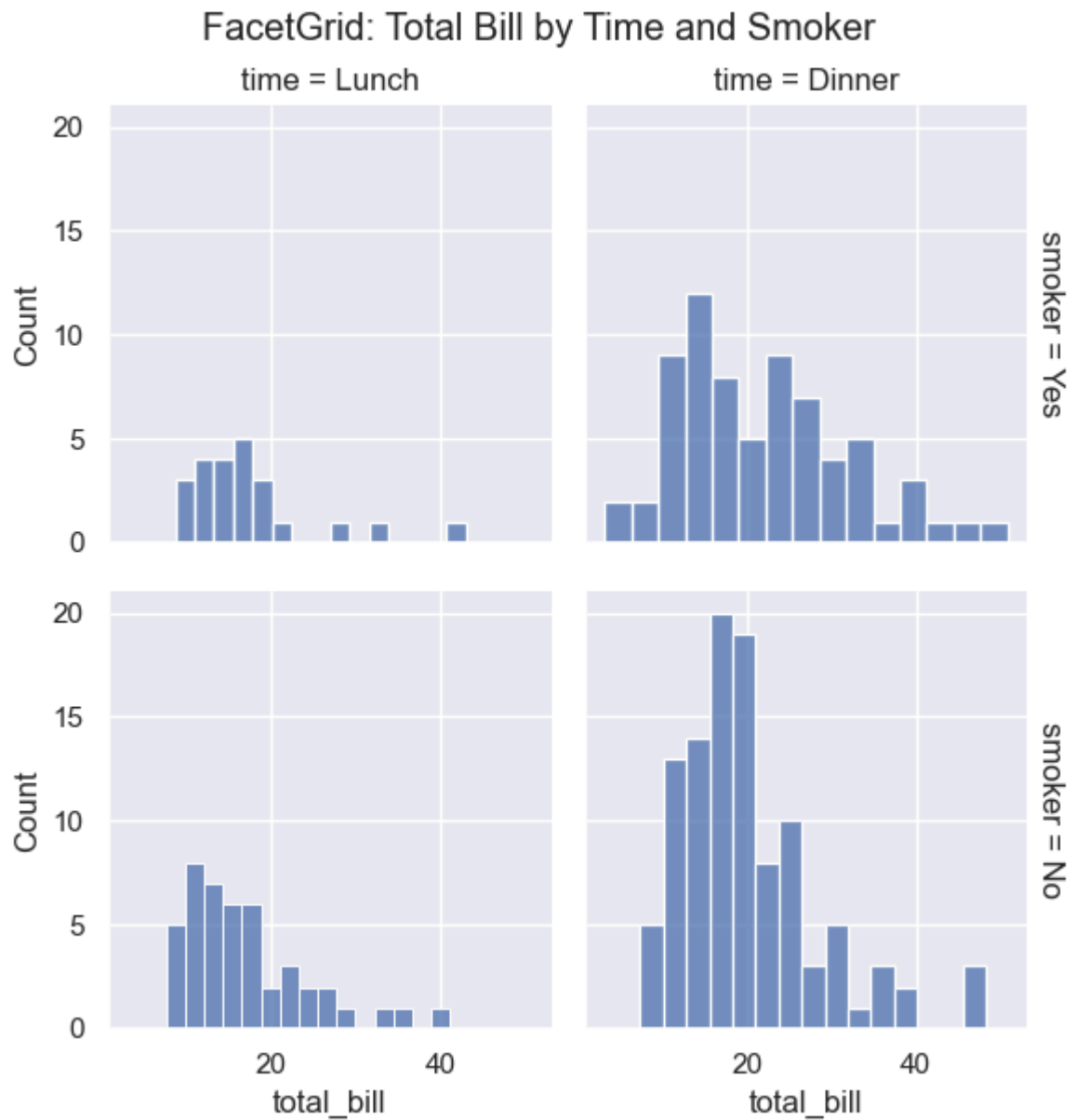
```
In [19]: sns.catplot(data=tips, x="day", y="tip", hue="sex", kind="point", palette="brigh
plt.title("Catplot (Point): Tips by Day and Sex")
plt.show()
```

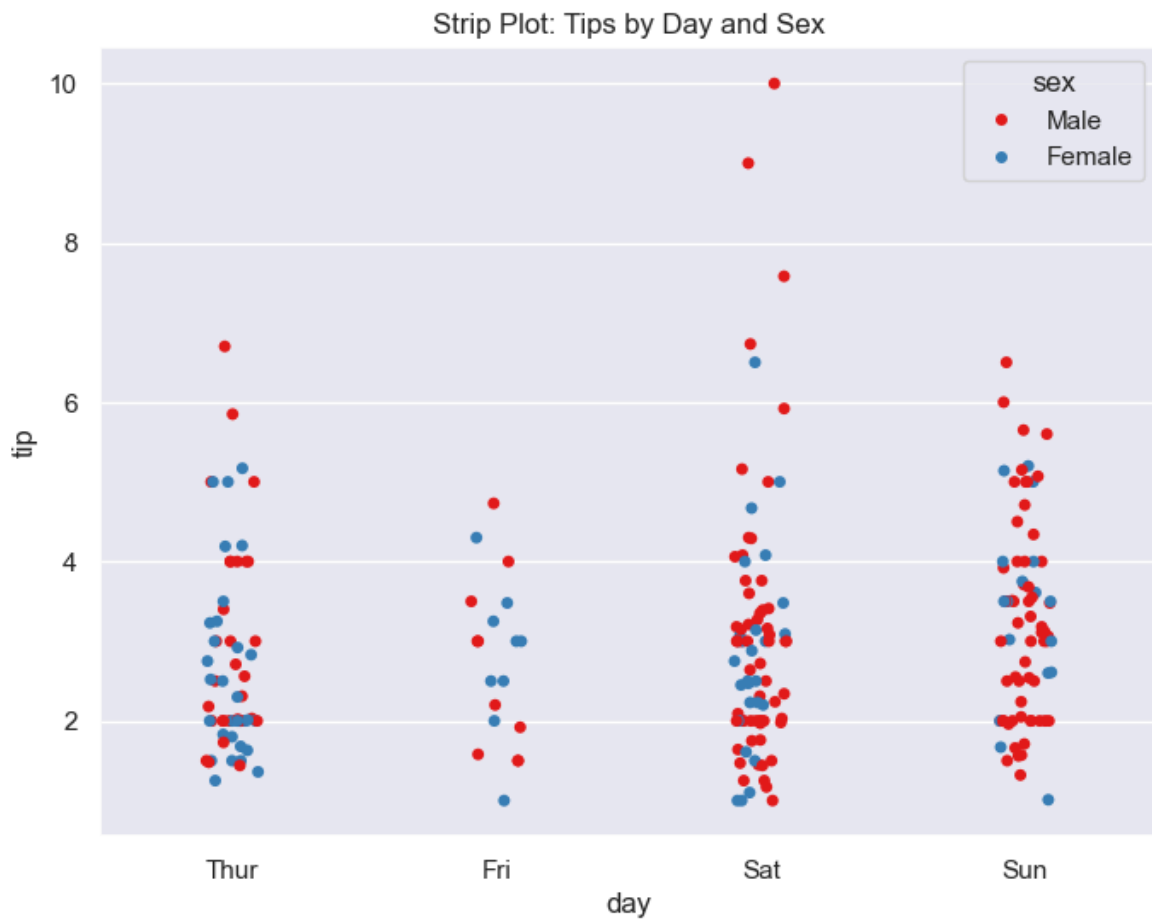
```
In [20]: sns.jointplot(data=tips, x="total_bill", y="tip", kind="scatter", hue="smoker",  
plt.suptitle("Joint Plot: Total Bill vs Tip by Smoker", y=1.02)  
plt.show()
```



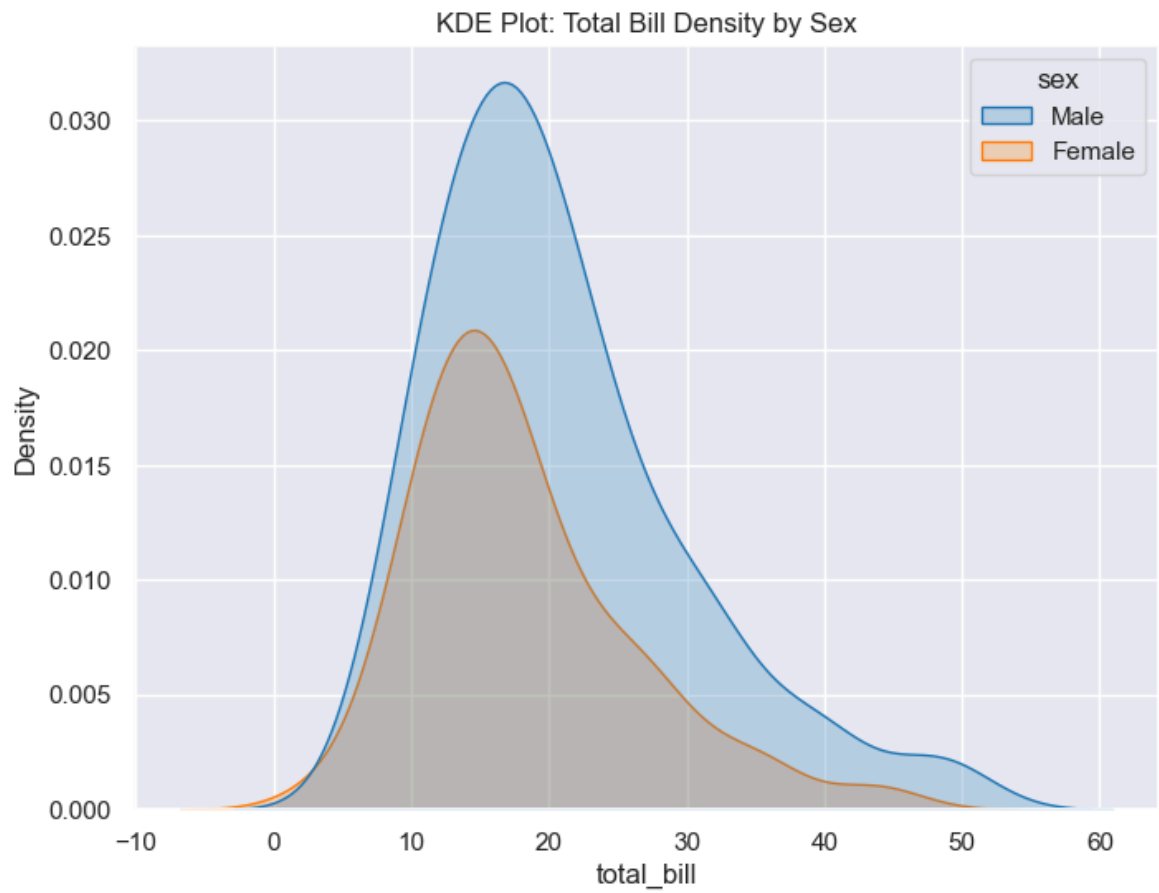
```
In [21]: g = sns.FacetGrid(tips, col="time", row="smoker", margin_titles=True)
g.map(sns.histplot, "total_bill", bins=15)
g.fig.suptitle("FacetGrid: Total Bill by Time and Smoker", y=1.02)
plt.show()
```



```
In [22]: plt.figure(figsize=(8, 6))
sns.stripplot(data=tips, x="day", y="tip", hue="sex", palette="Set1", jitter=True)
plt.title("Strip Plot: Tips by Day and Sex")
plt.show()
```



```
In [24]: plt.figure(figsize=(8, 6))
sns.kdeplot(data=tips, x="total_bill", hue="sex", fill=True, palette="tab10")
plt.title("KDE Plot: Total Bill Density by Sex")
plt.show()
```



In []: