

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

import seaborn as sns
```

```
In [5]: import matplotlib.pyplot as plt
```

```
In [6]: sns.get_dataset_names()
```

```
Out[6]: ['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 [7]: tips = sns.load_dataset("tips")

sns.set_theme(style='darkgrid')
```

```
In [8]: tips
```

Out[8]:

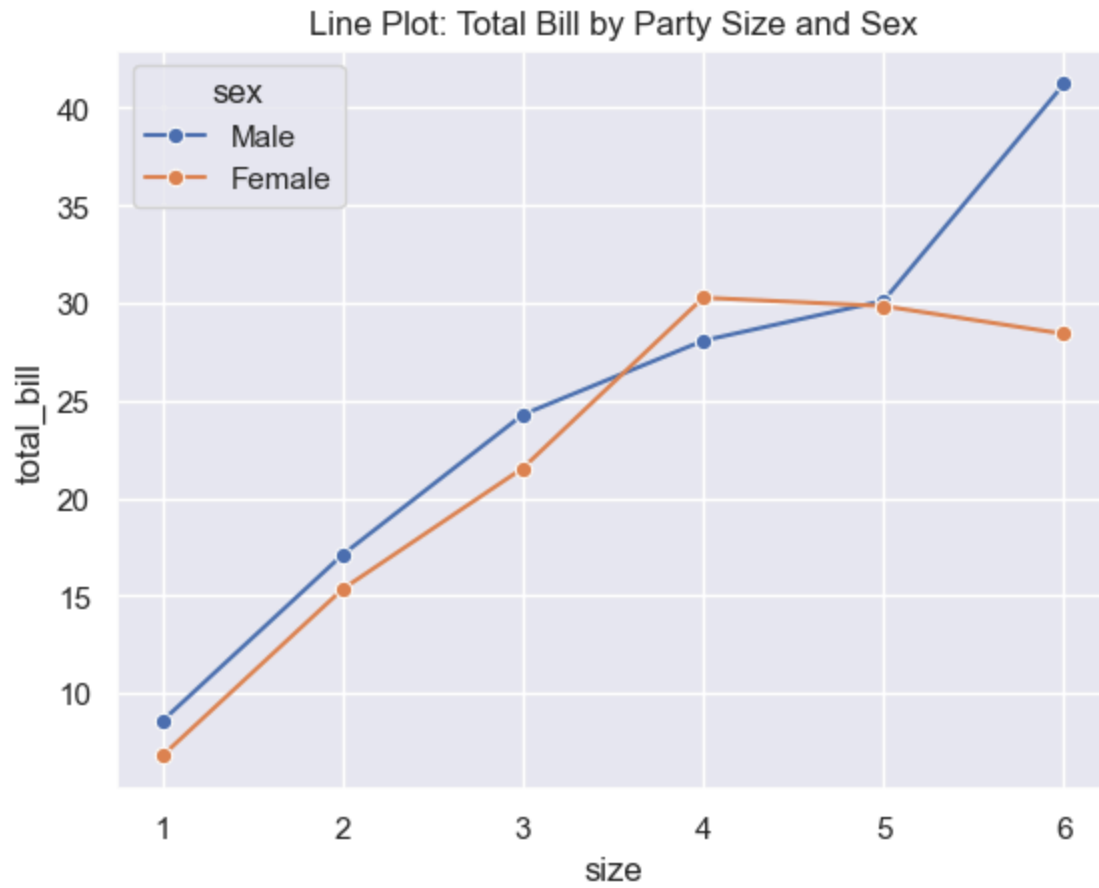
	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4
...
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	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

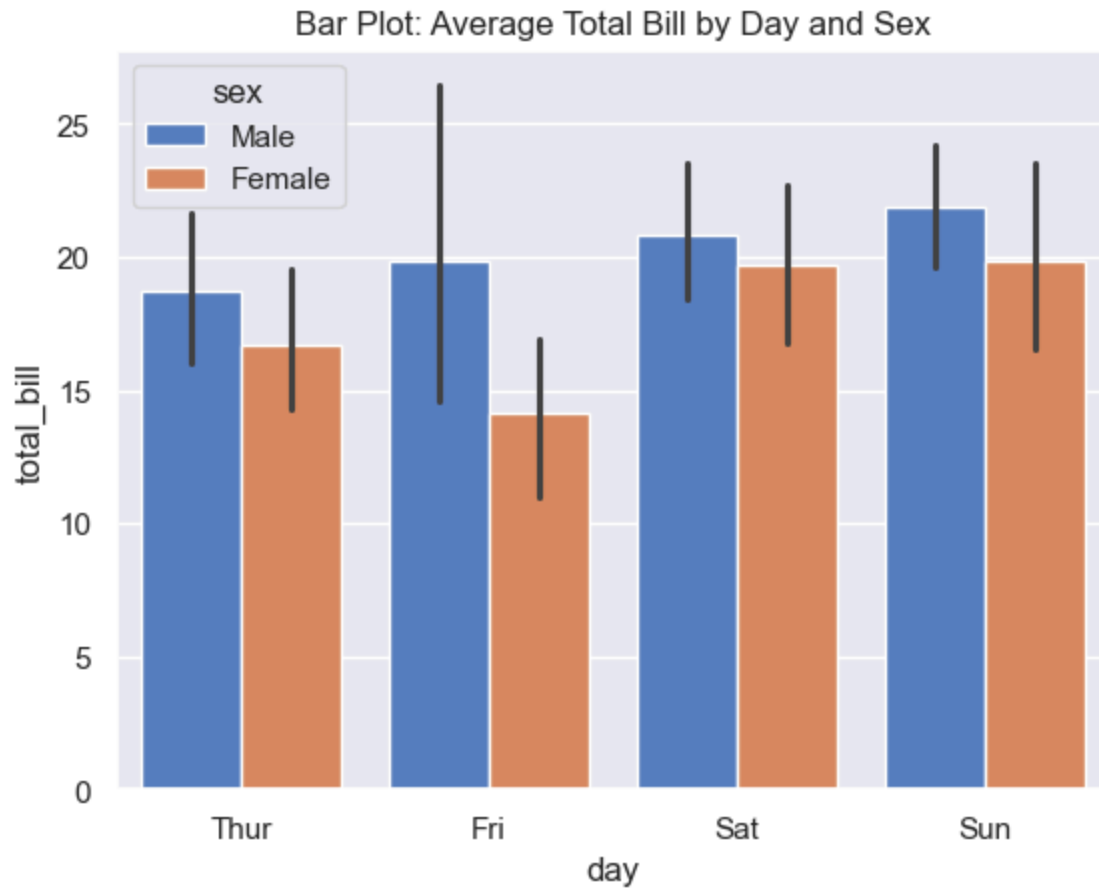
In [9]: `tips.to_csv("tips_dataset.csv", index = False)`In [10]: `import os
os.getcwd()`Out[10]: `'c:\\Users\\admin\\VSCODE'`In [16]: `plt.figure(figsize=(8,6))`Out[16]: `<Figure size 800x600 with 0 Axes>`In [20]: `sns.scatterplot(data=tips, x="total_bill", y="tip", hue="time", size="size", palette="m",
plt.title("Scatter Plot: Total Bill vs Tip by Time and Size"));`



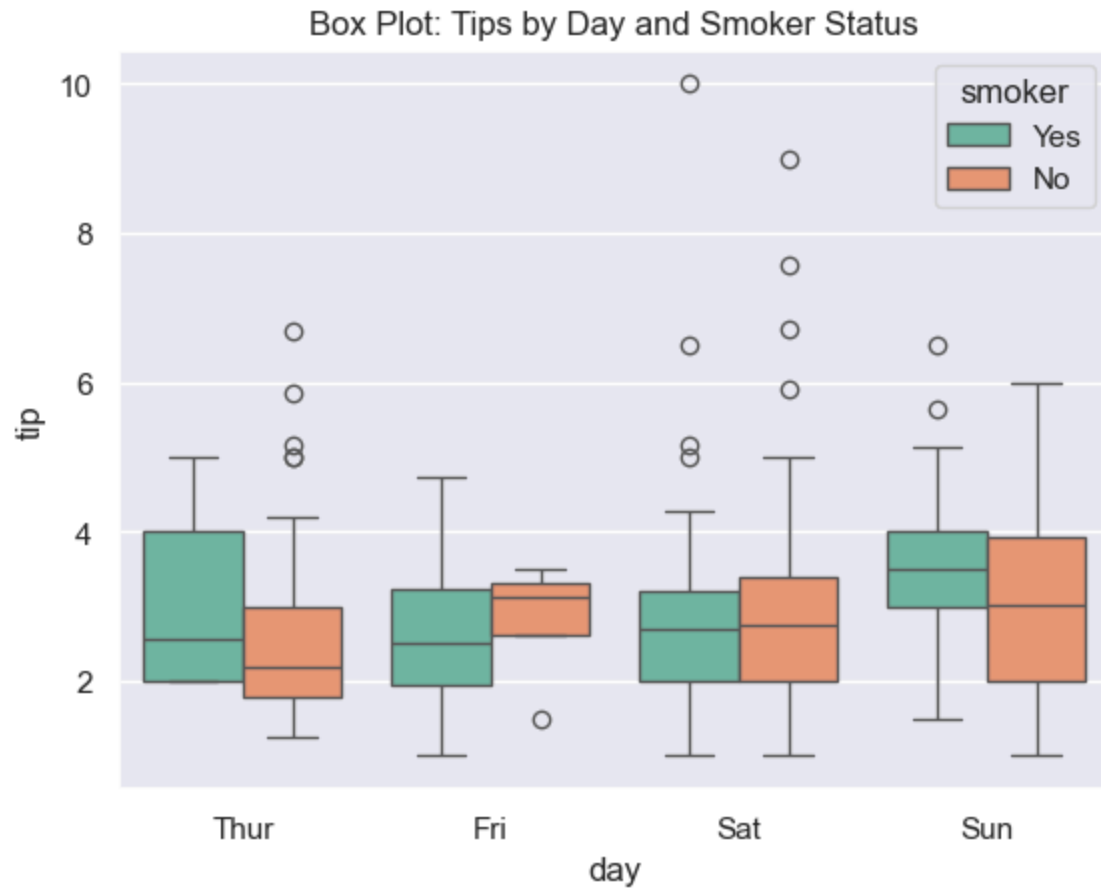
```
In [22]: sns.lineplot(data=tips, x="size", y="total_bill", hue="sex", ci=None, marker="o")  
plt.title("Line Plot: Total Bill by Party Size and Sex");
```



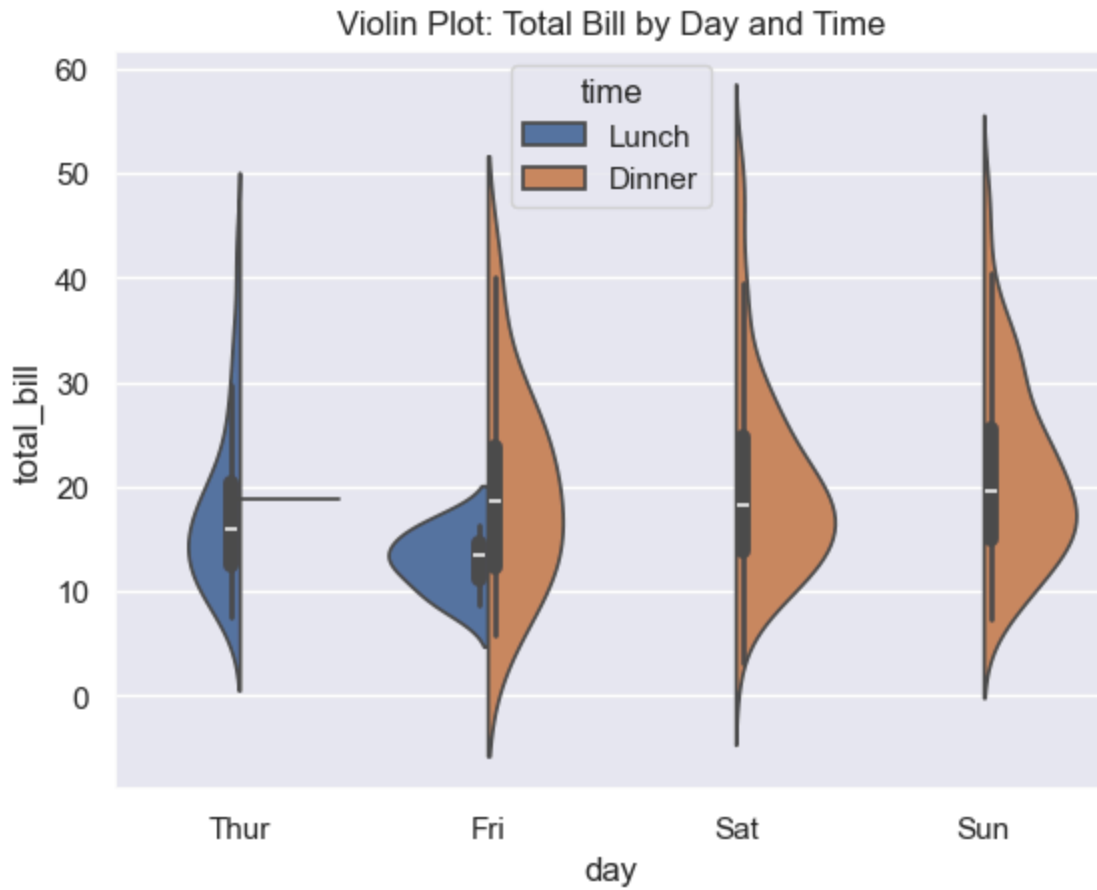
```
In [23]: sns.barplot(data=tips, x="day", y="total_bill", hue="sex", palette="muted")  
plt.title("Bar Plot: Average Total Bill by Day and Sex")  
plt.show()
```



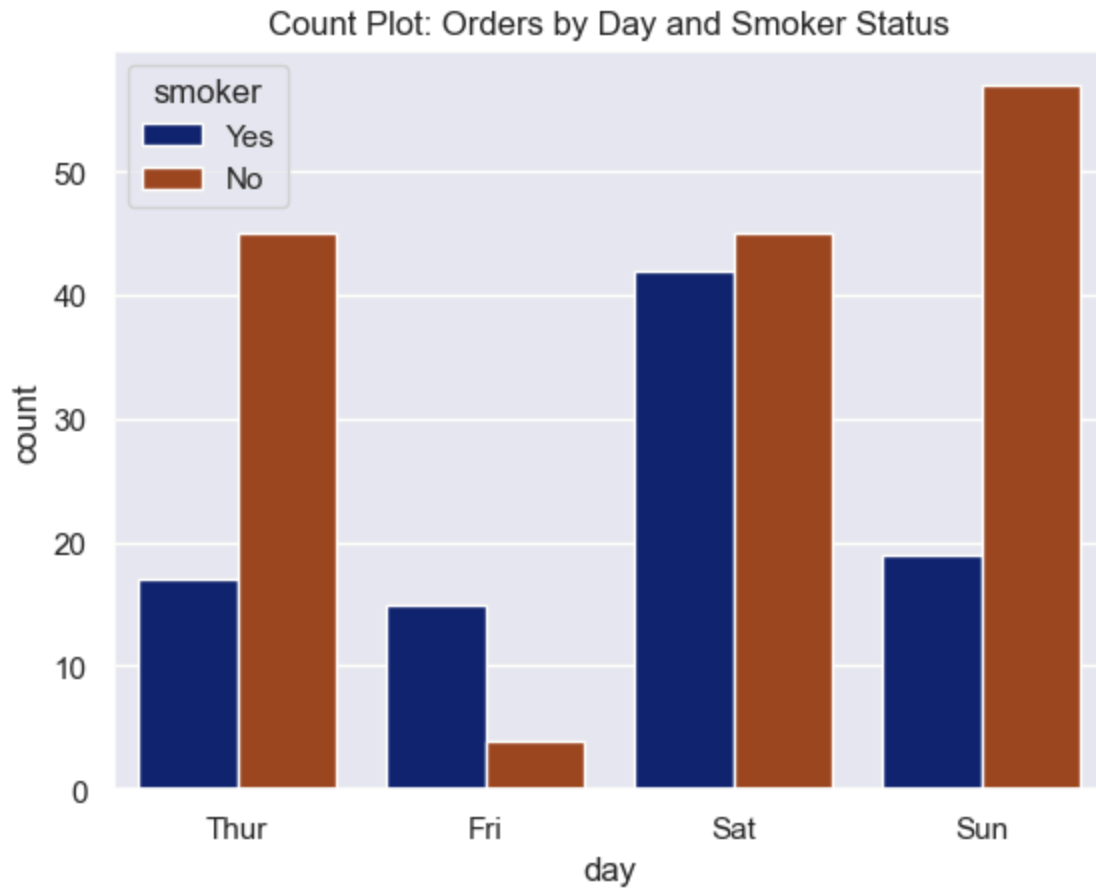
```
In [24]: sns.boxplot(data=tips, x="day", y="tip", hue="smoker", palette="Set2")  
plt.title("Box Plot: Tips by Day and Smoker Status")  
plt.show()
```



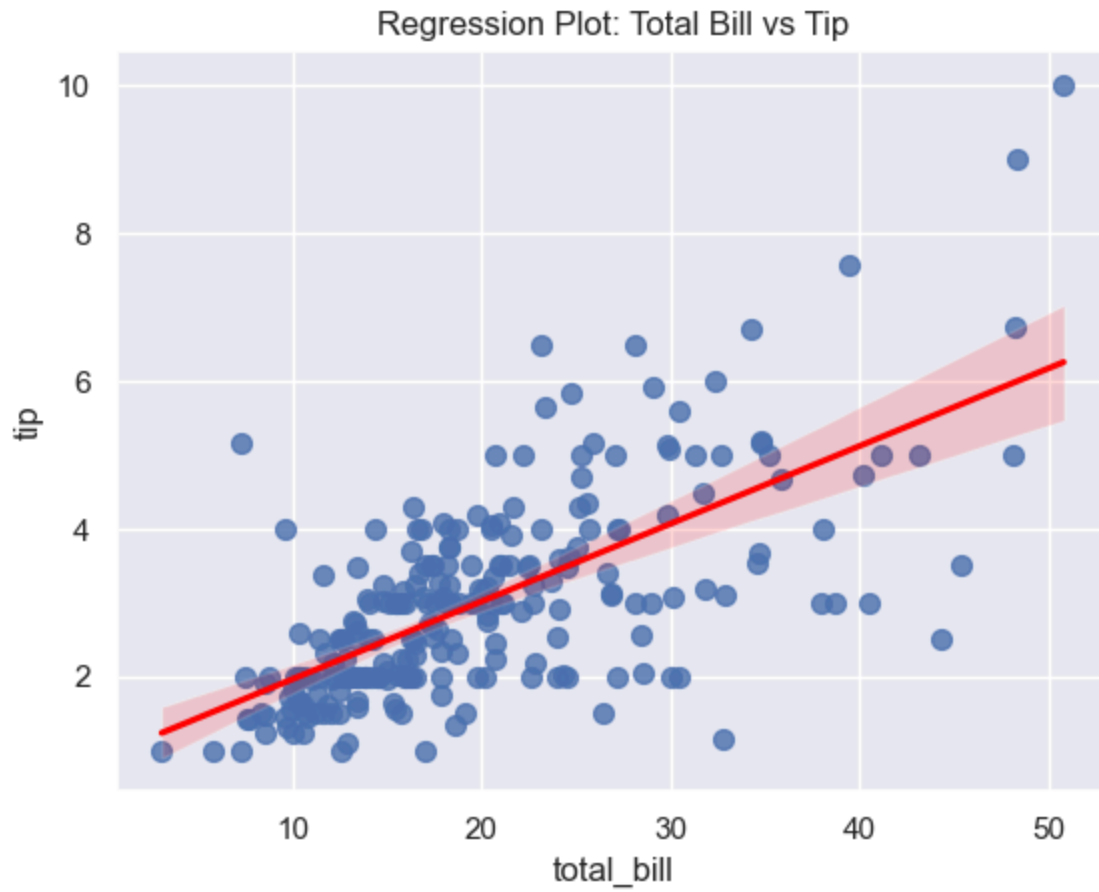
```
In [25]: sns.violinplot(data=tips, x="day", y="total_bill", hue="time", split=True)
plt.title("Violin Plot: Total Bill by Day and Time")
plt.show()
```



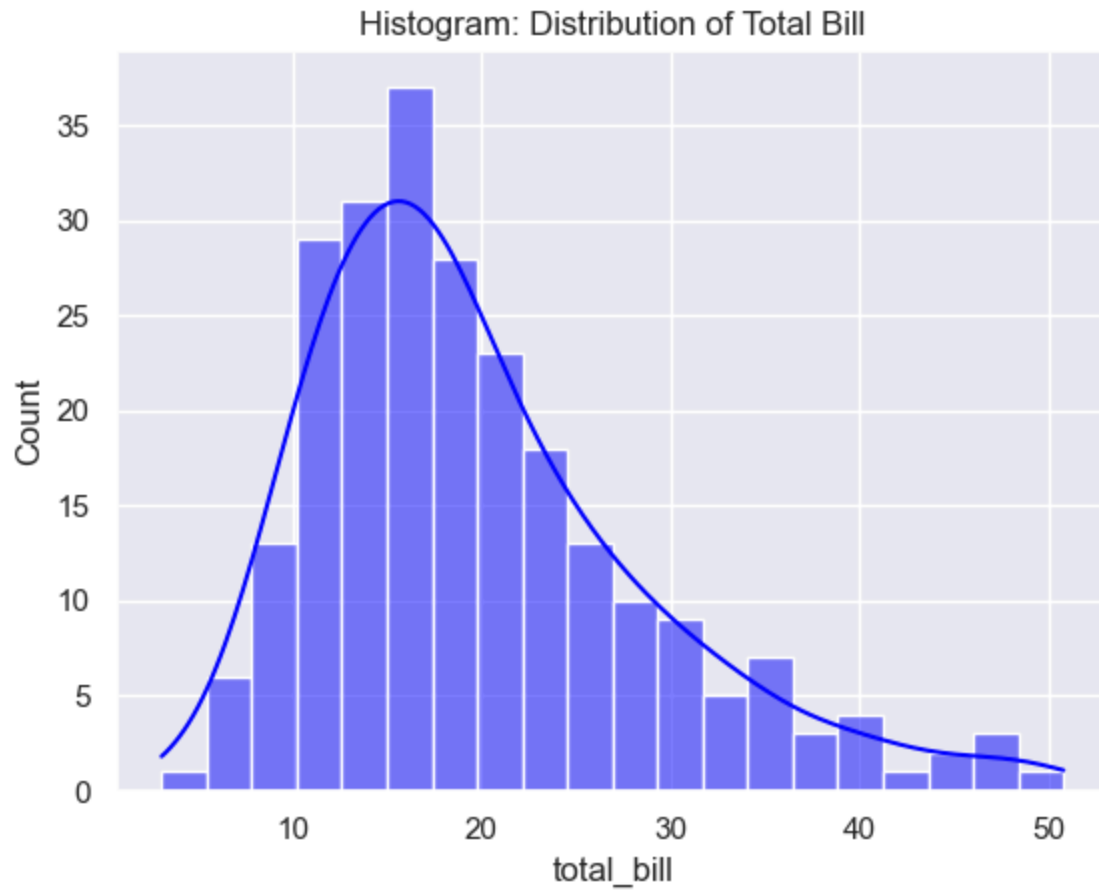
```
In [26]: sns.countplot(data=tips, x="day", hue="smoker", palette="dark")
plt.title("Count Plot: Orders by Day and Smoker Status")
plt.show()
```



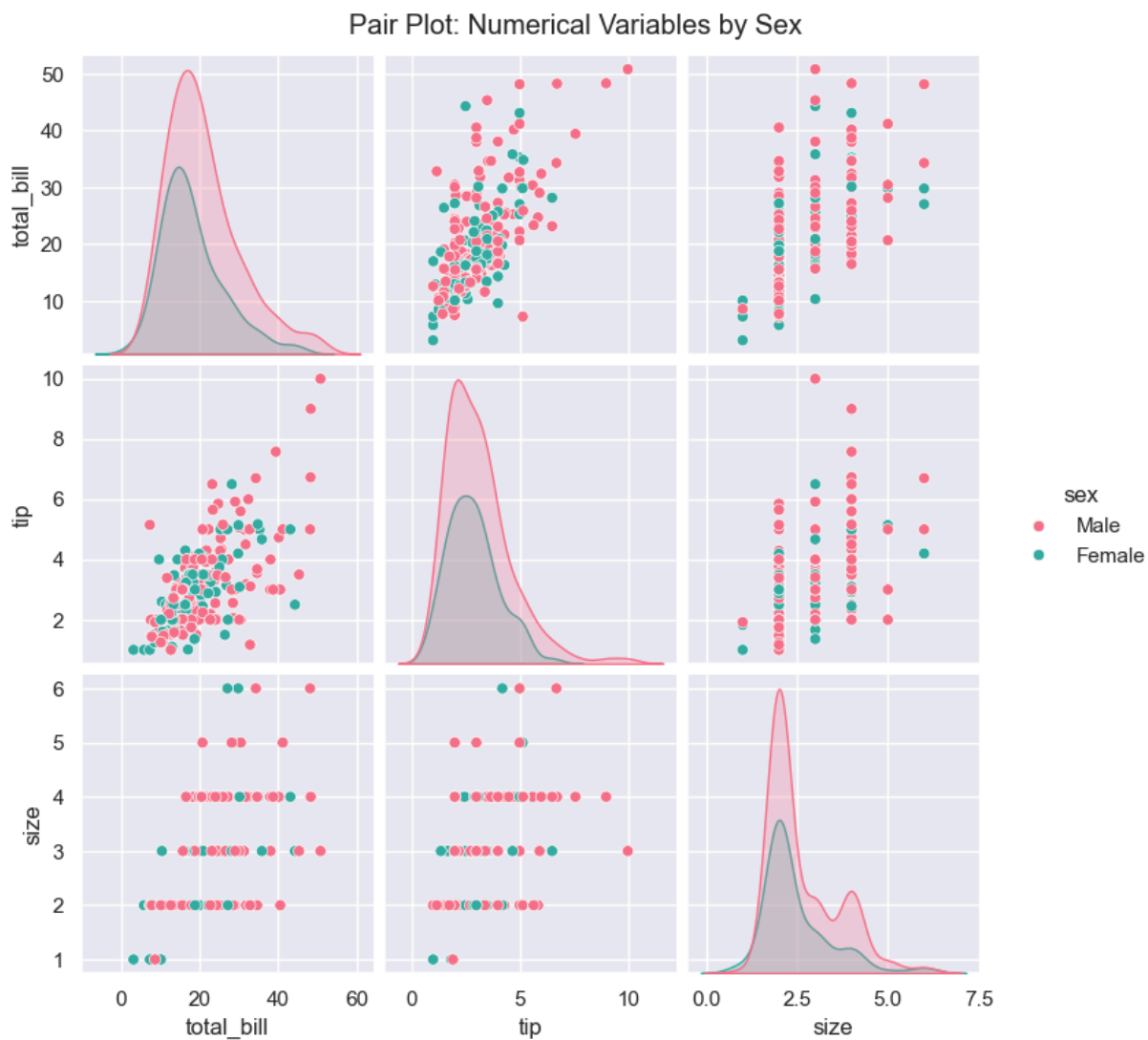
```
In [27]: sns.regplot(data=tips, x="total_bill", y="tip", scatter_kws={"s": 50}, line_kws={"c": "red", "dash": [5, 5]})  
plt.title("Regression Plot: Total Bill vs Tip")  
plt.show()
```

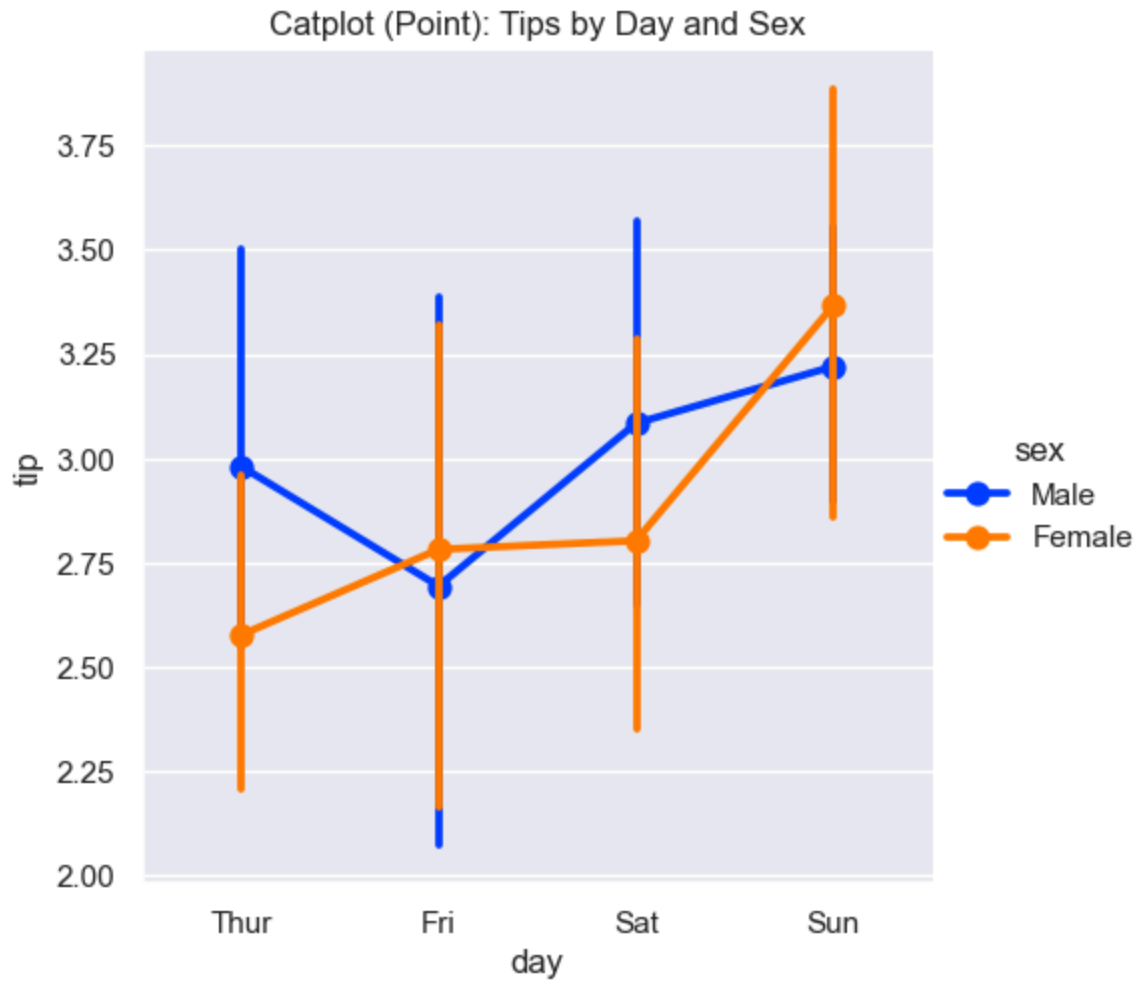
```
In [28]: sns.histplot(data=tips, x="total_bill", kde=True, bins=20, color="blue")  
plt.title("Histogram: Distribution of Total Bill")  
plt.show()
```



```
In [29]: 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()
```



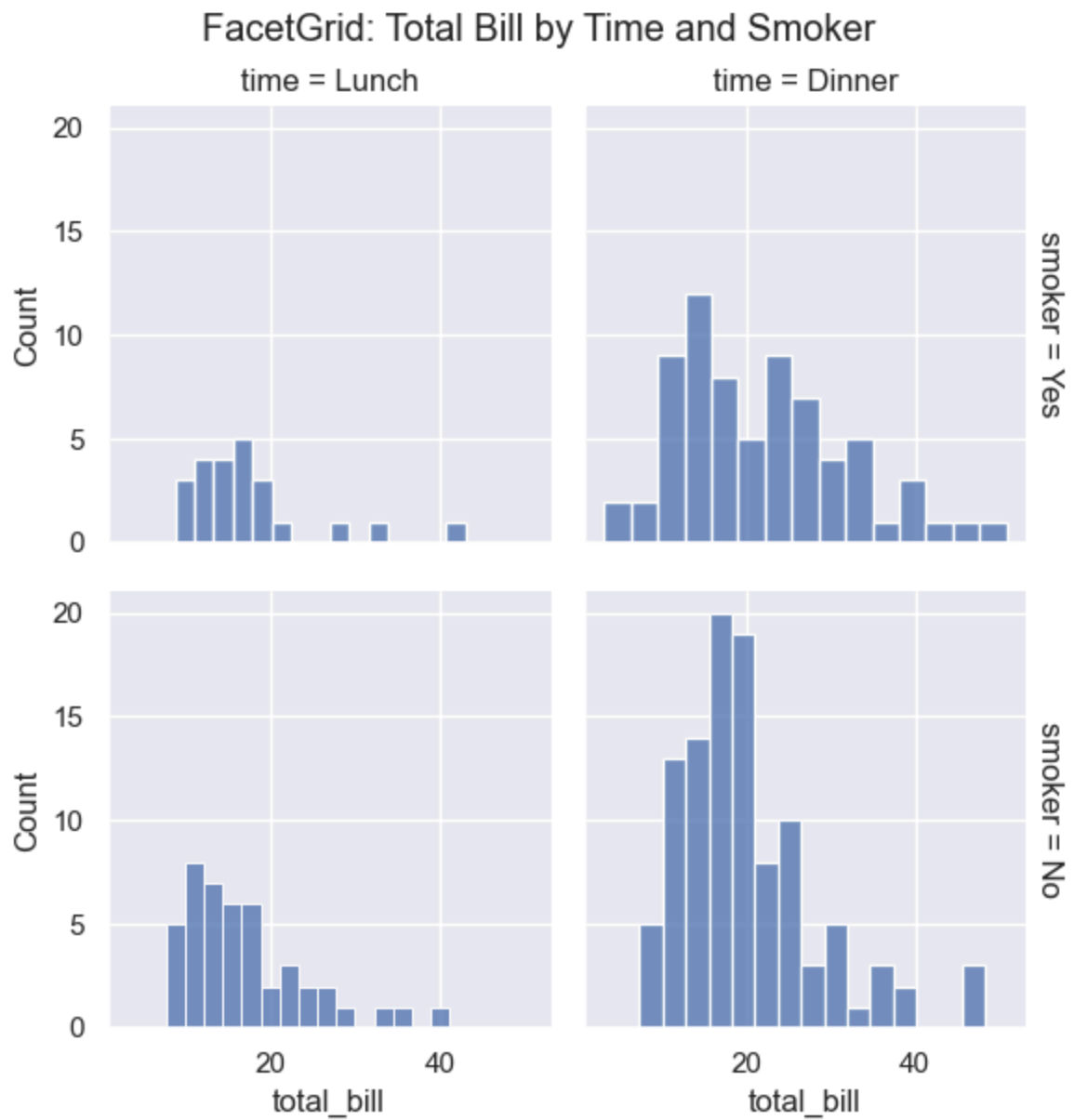
```
In [30]: sns.catplot(data=tips, x="day", y="tip", hue="sex", kind="point", palette="bright")
plt.title("Catplot (Point): Tips by Day and Sex")
plt.show()
```



```
In [31]: sns.jointplot(data=tips, x="total_bill", y="tip", kind="scatter", hue="smoker", palette="muted",  
plt.suptitle("Joint Plot: Total Bill vs Tip by Smoker", y=1.02)  
plt.show()
```



```
In [32]: 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 [33]: 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()
```

