In [1]:
```
# pip install upgrade version
```

In [2]:
```
import warnings
warnings.filterwarnings('ignore')
```

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

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',
 'taxis',
 'tips',
 'titanic']
```

In [5]:
```
tips = sns.load_dataset('tips')
tips.head()
```

Out[5]:

	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 [6]:
```
titanic = sns.load_dataset('titanic')
titanic.head()
```

Out[6]:

	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 [7]:
```
tips
```

Out[7]:

	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 [8]:
```
sns.set_theme(style = 'darkgrid')
```

In [9]:
```
tips.to_csv('tips_dataset.csv' , index = False)
import pandas as pd
```

In [10]:
```
import os
os.getcwd()
```

Out[10]:
```
'C:\\Users\\Hanshu\\basics'
```

In [11]:
```
import matplotlib.pyplot as plt
```

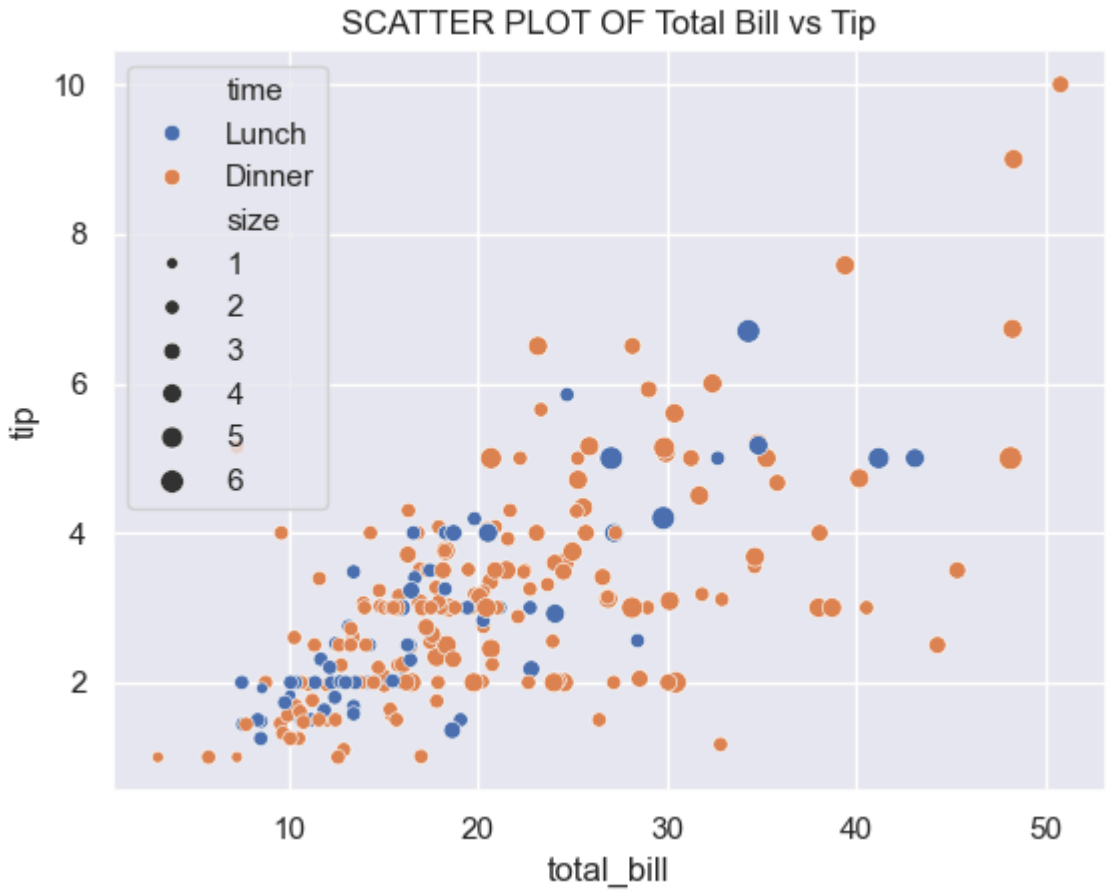
In [12]:
```
plt.figure(figsize=(8,6))
```

Out[12]:
```
<Figure size 800x600 with 0 Axes>
```

```
<Figure size 800x600 with 0 Axes>
```

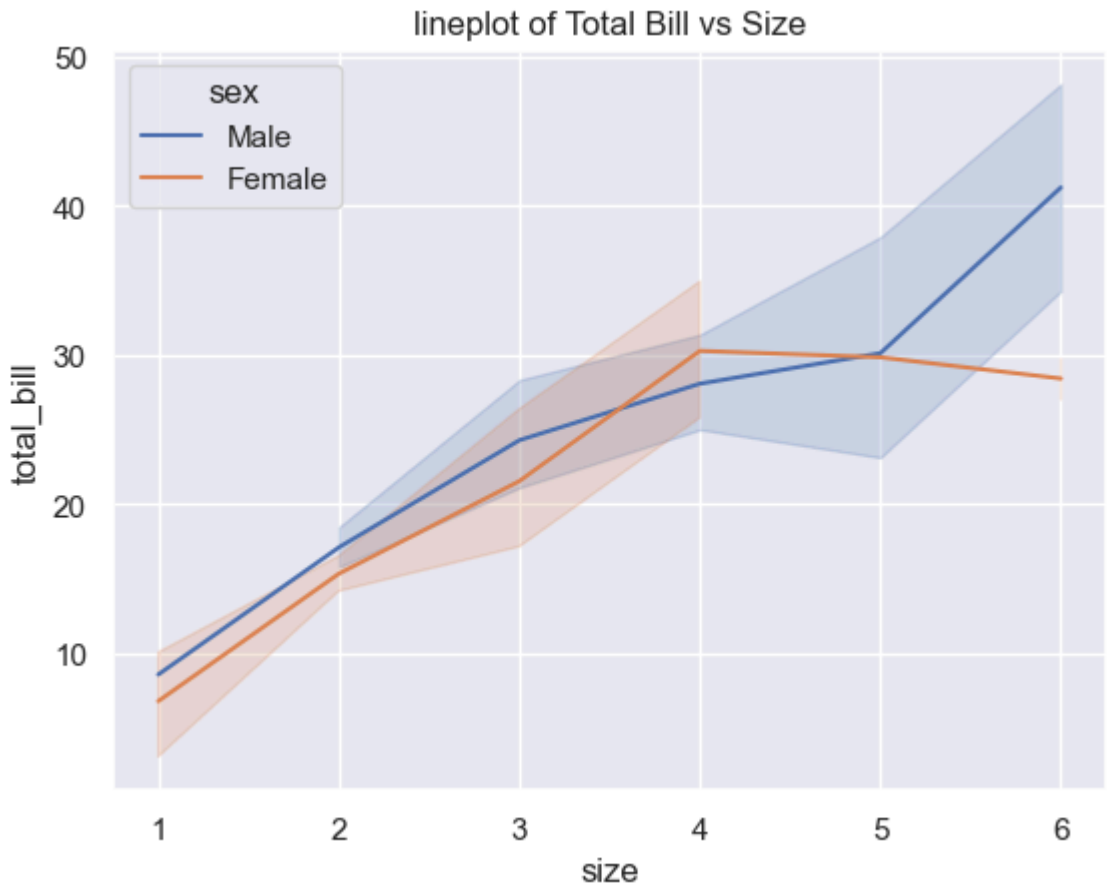
Scatter Plot

In [13]:
```
sns.scatterplot(data = tips, x = 'total_bill', y = 'tip', hue = 'time', size = '
plt.title('SCATTER PLOT OF Total Bill vs Tip')
plt.show()
```

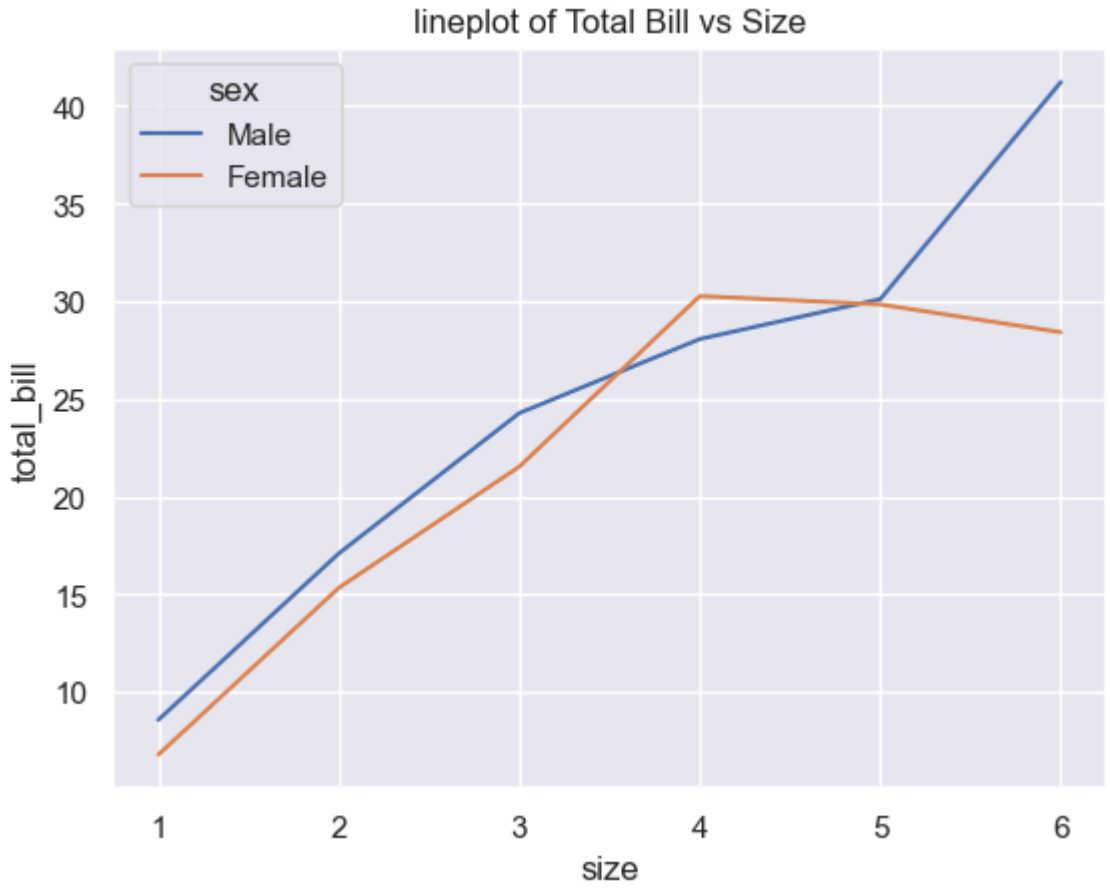


Line Plot

In [14]:
```
sns.lineplot(data = tips, x = 'size' , y = 'total_bill' , hue = 'sex', markers =
plt.title('lineplot of Total Bill vs Size')
plt.show()
```



In [15]:
```
sns.lineplot(data = tips, x = 'size' , y = 'total_bill' , hue = 'sex',ci = None,
plt.title('lineplot of Total Bill vs Size')
plt.show()
```

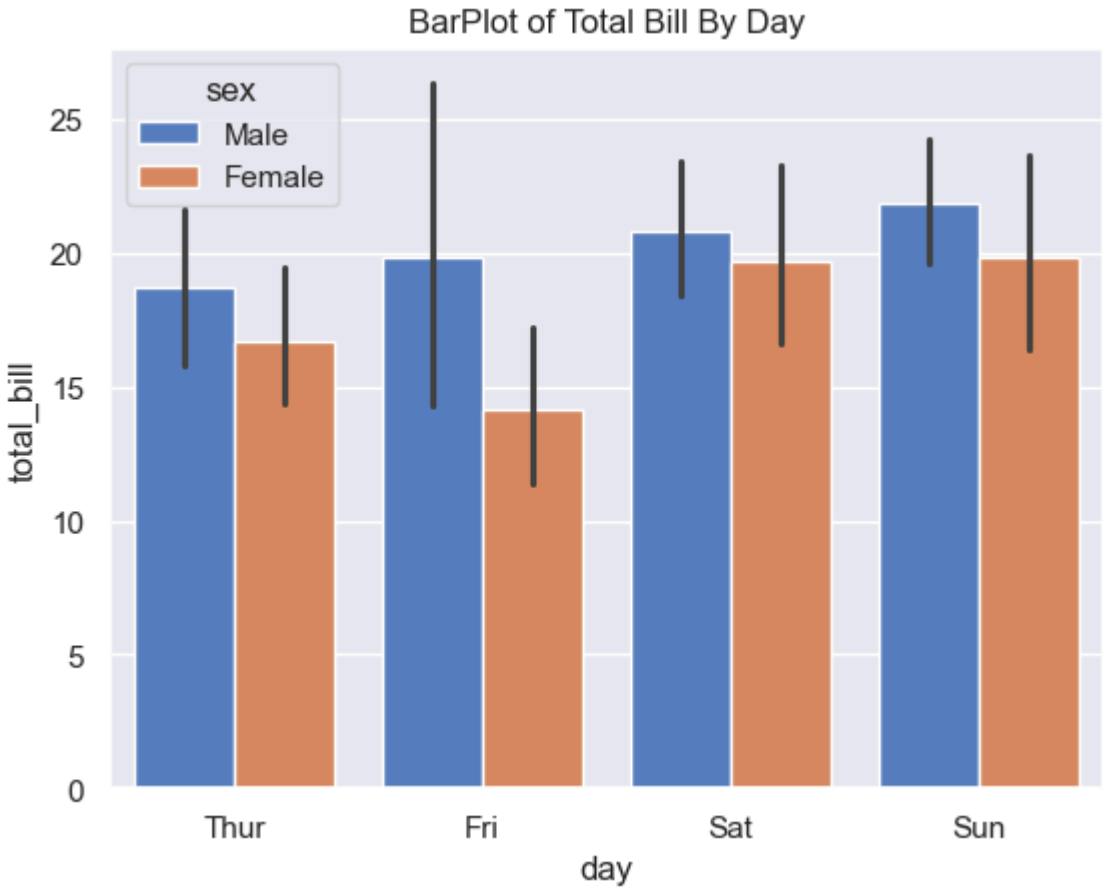


In [16]:
```
tips.columns
```

Out[16]:
```
Index(['total_bill', 'tip', 'sex', 'smoker', 'day', 'time', 'size'], dtype='obj
ect')
```

3. Bar Plot

In [17]:
```
sns.barplot(data = tips, x = 'day' , y = 'total_bill' , hue = 'sex', palette = '
plt.title('BarPlot of Total Bill By Day')
plt.show()
```

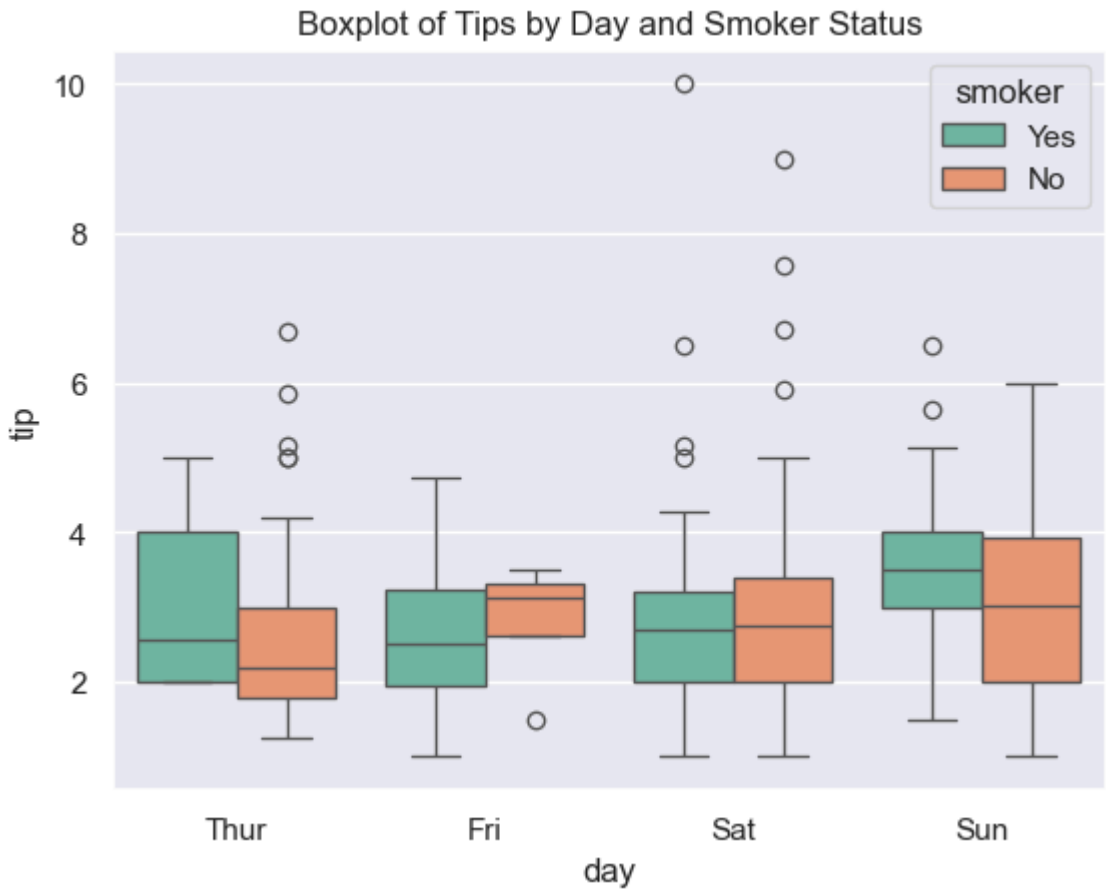


In [18]:
```
tips.columns
```

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

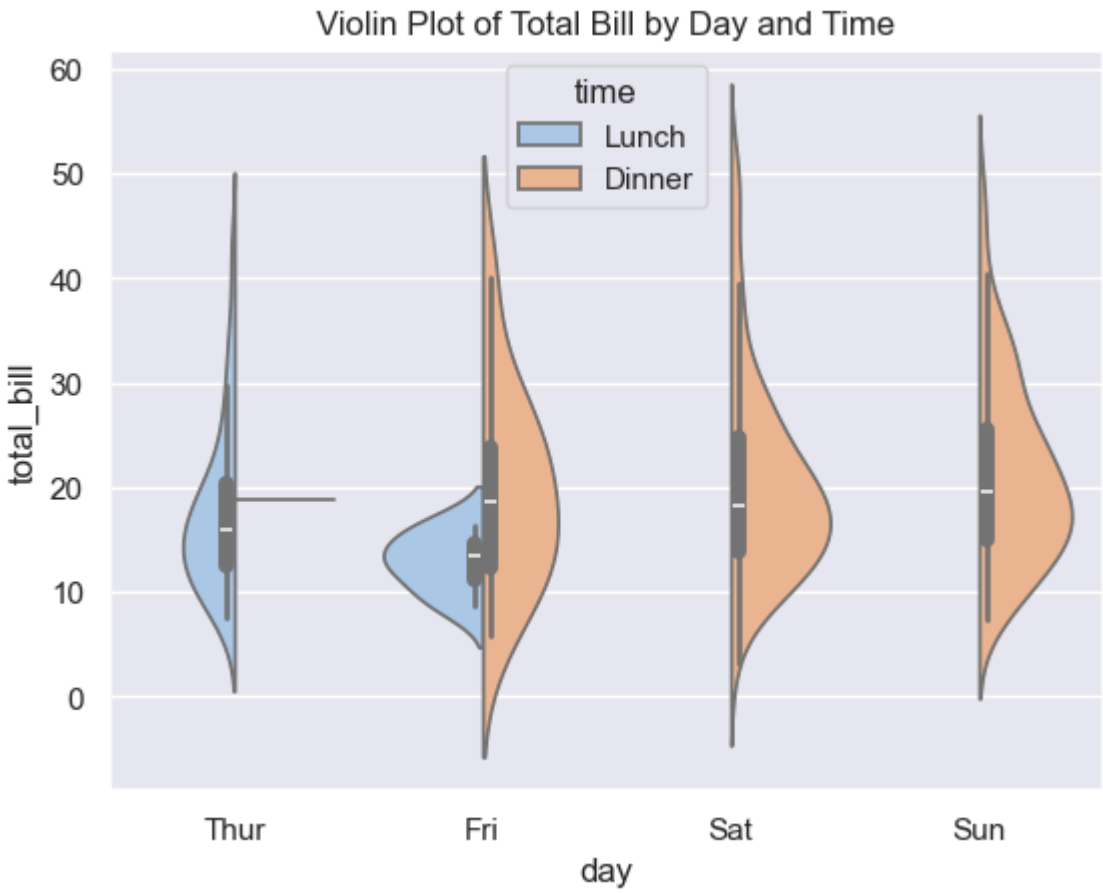
4. BoxPlot

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



5. Violin Plot

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

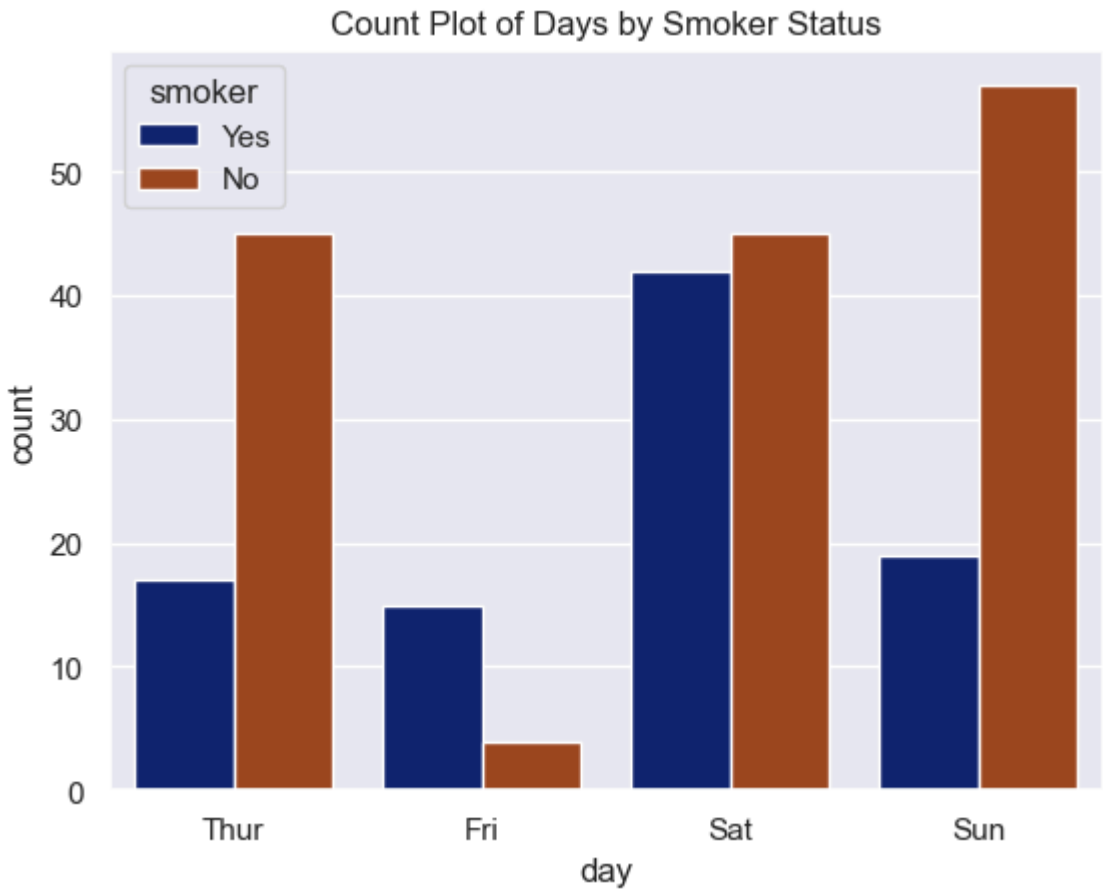


6. Count Plot

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

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

In [22]:
```
sns.countplot(data=tips,x = 'day', hue = 'smoker', palette = 'dark')
plt.title("Count Plot of Days by Smoker Status")
plt.show()
```

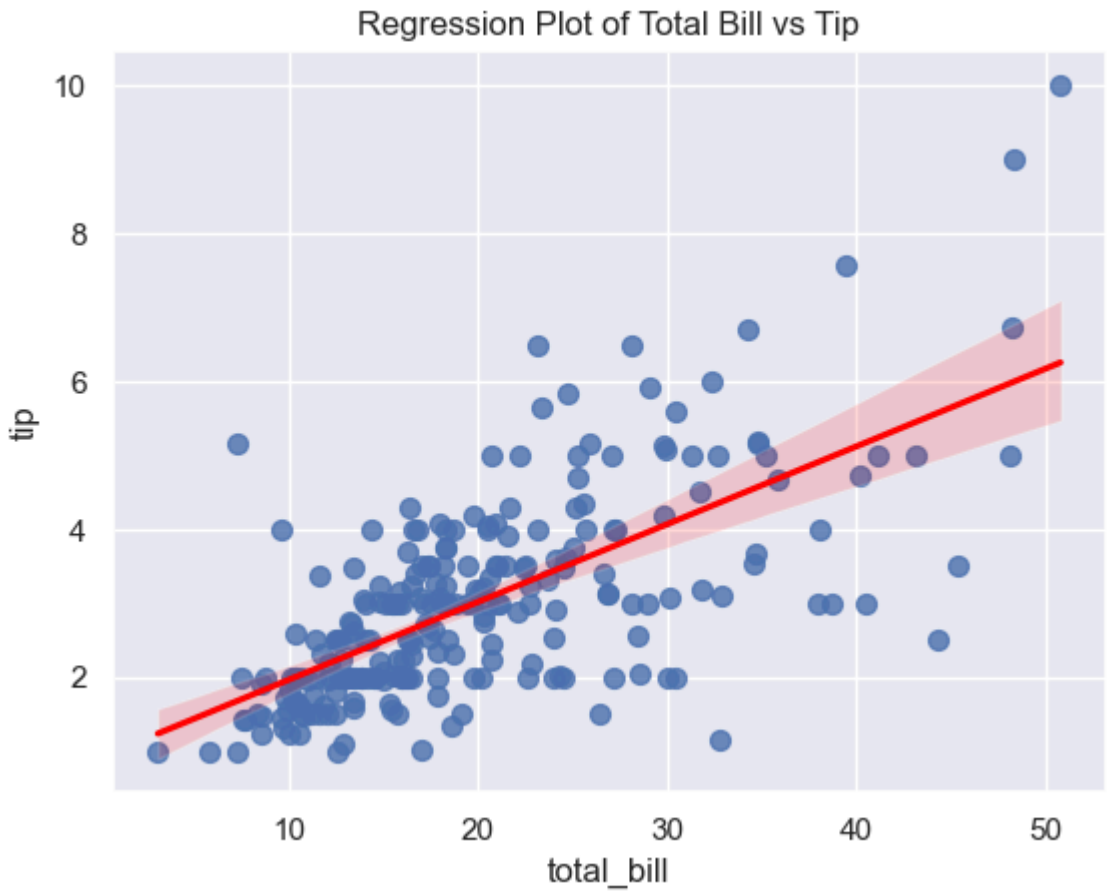


In [23]:
```
tips.columns
```

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

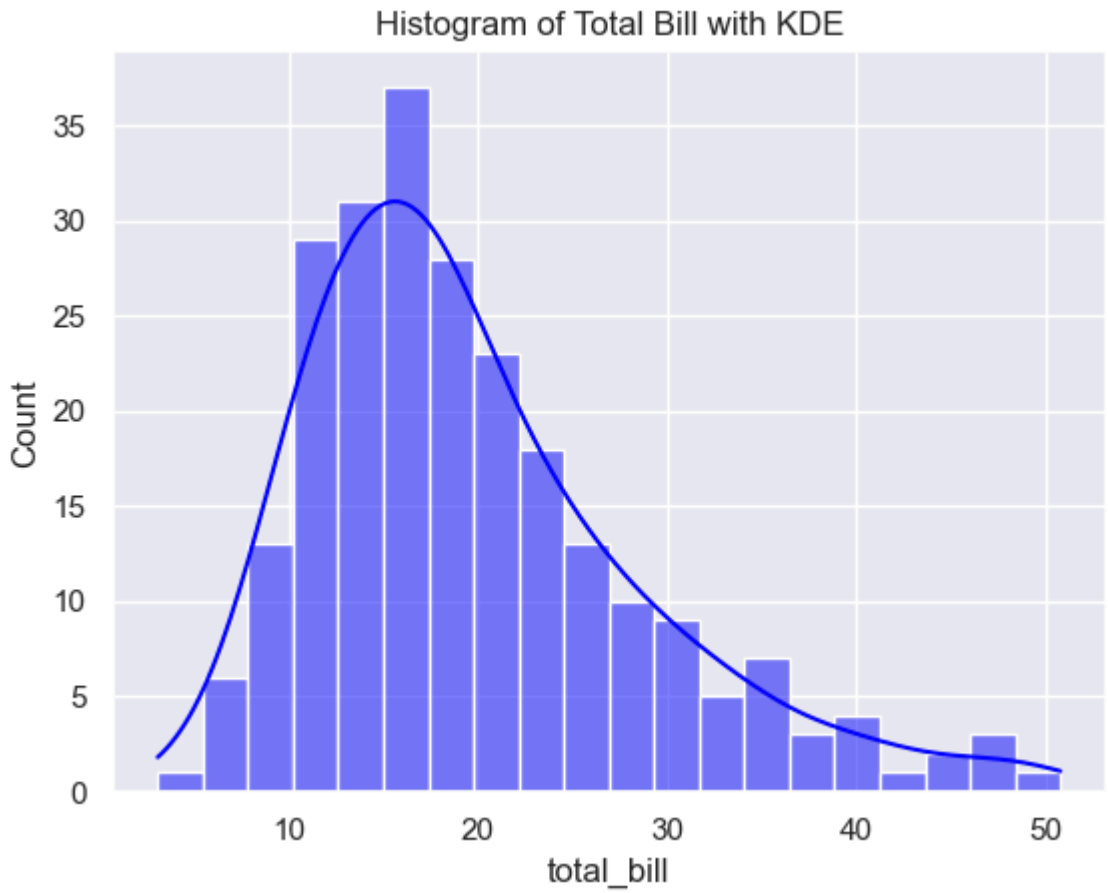
7.Regression Plot

In [24]:
```
sns.regplot(data = tips, x='total_bill', y='tip',scatter_kws={'s':50},line_kws={
plt.title("Regression Plot of Total Bill vs Tip")
plt.show()
```



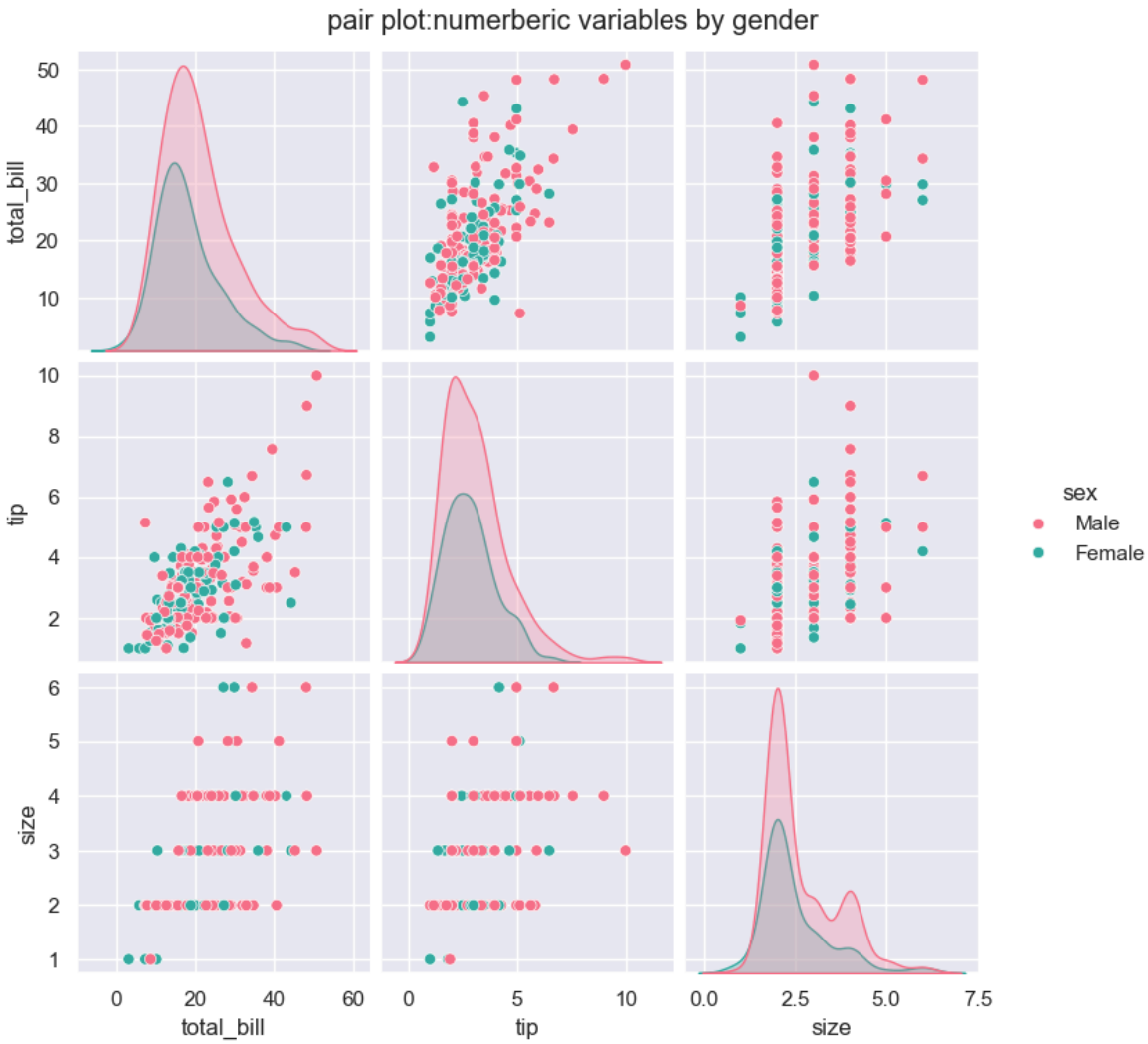
8. Histogram of total bill with KDE

In [25]:
```
sns.histplot(data=tips, x='total_bill',bins=20,kde=True,color='blue')
plt.title("Histogram of Total Bill with KDE")
plt.show()
```



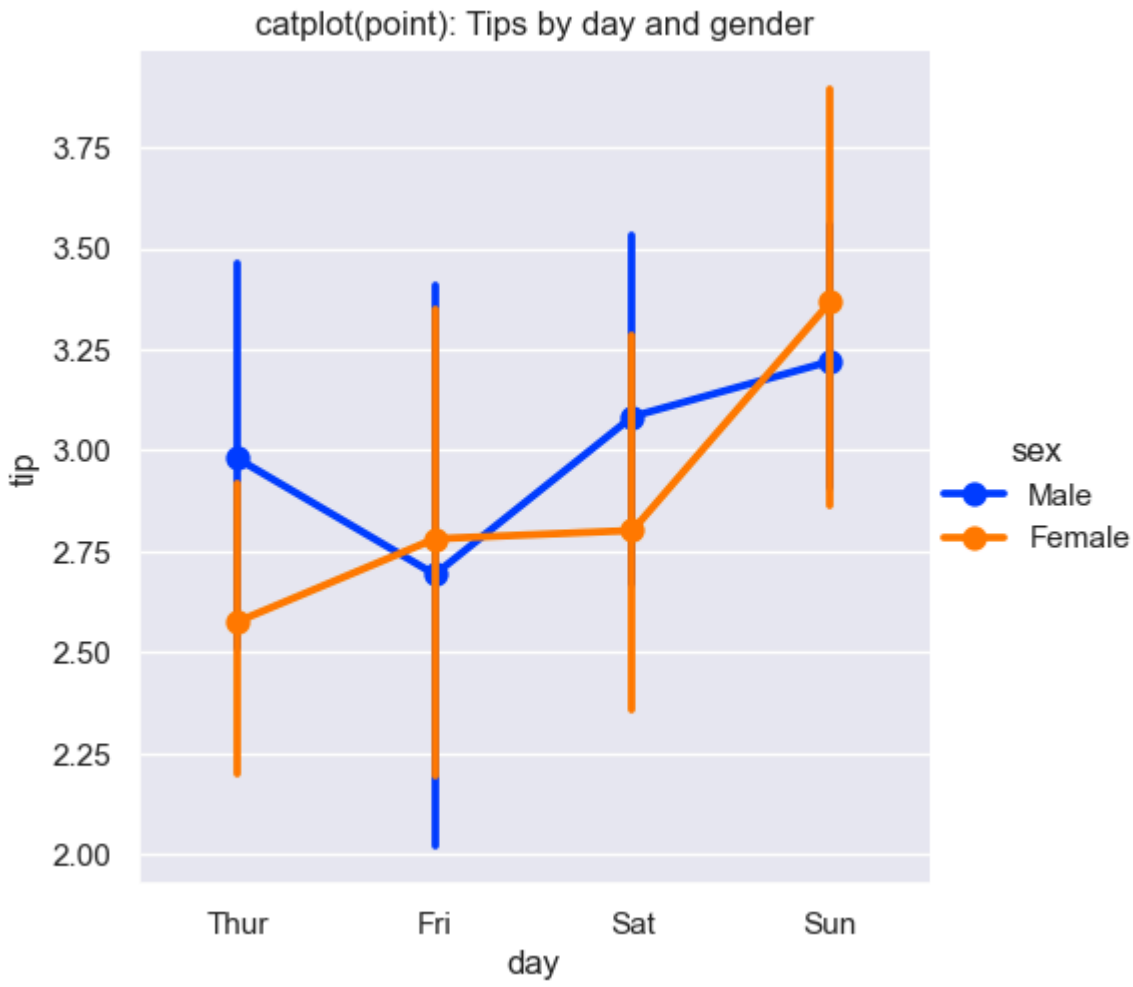
9. Pairplot

In [26]:
```
sns.pairplot(tips, hue='sex', vars=['total_bill','tip','size'] , palette='husl')
plt.suptitle('pair plot:numerberic variables by gender',y= 1.02)
plt.show()
```



10 Catplot

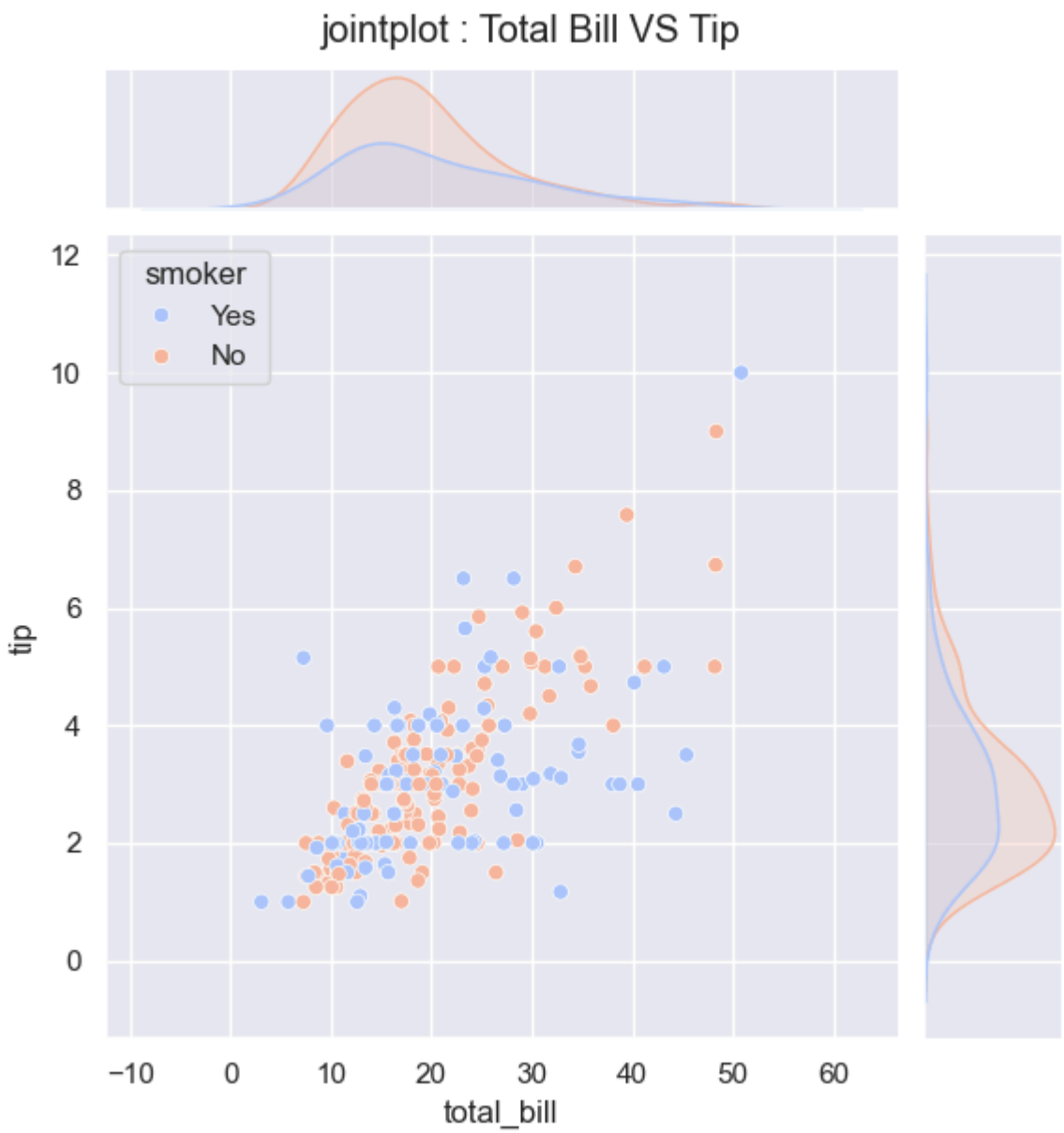
In [27]:
```
sns.catplot(data=tips, x='day' , y='tip', hue='sex', kind='point', palette='brig
plt.title('catplot(point): Tips by day and gender')
plt.show()
```



11. JOINT PLOT

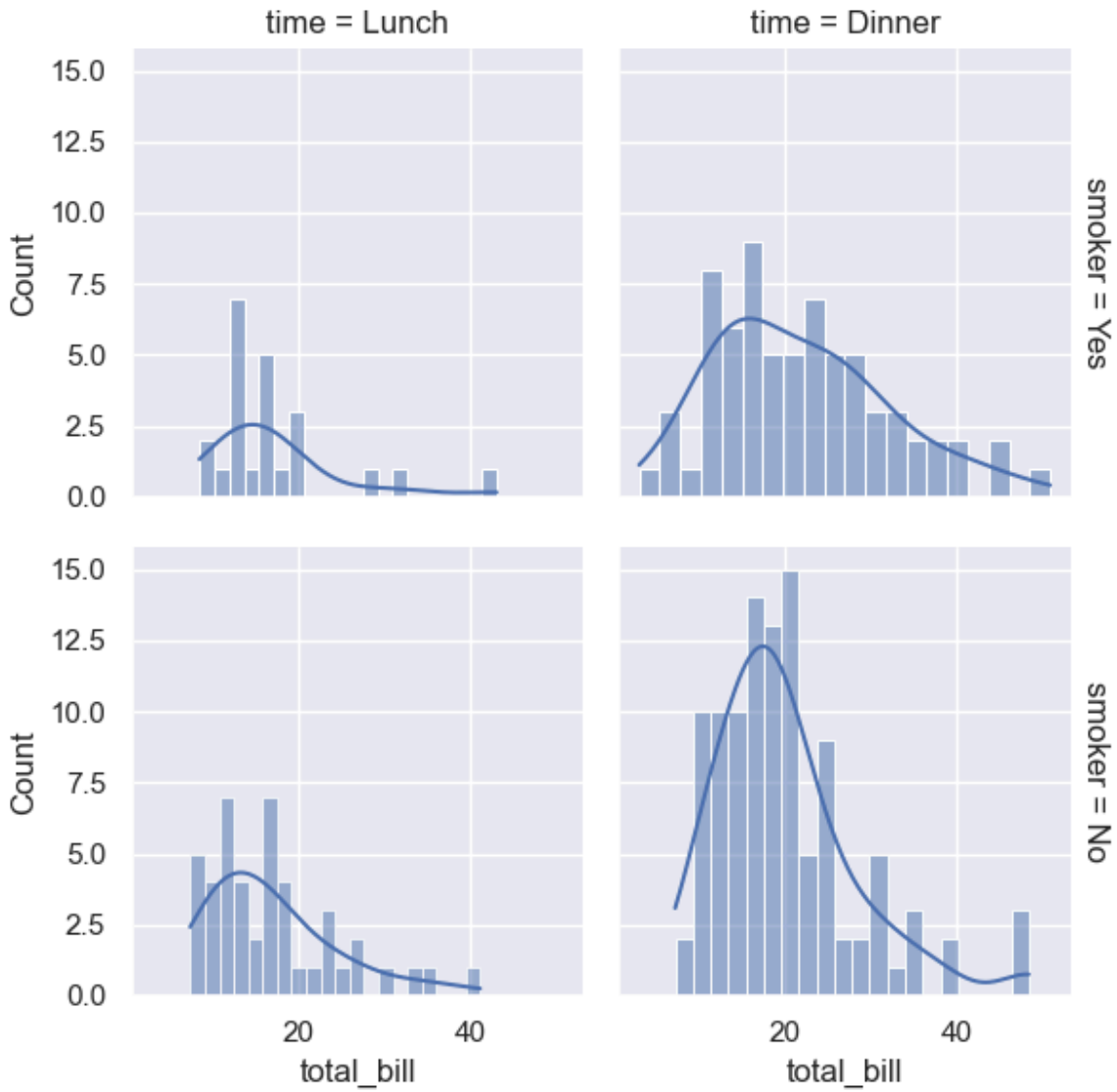
In [29]:
```
sns.jointplot(data=tips, x = 'total_bill', y="tip",kind='scatter',hue = 'smoker'

plt.suptitle('jointplot : Total Bill VS Tip',y = 1.02)
plt.show()
```



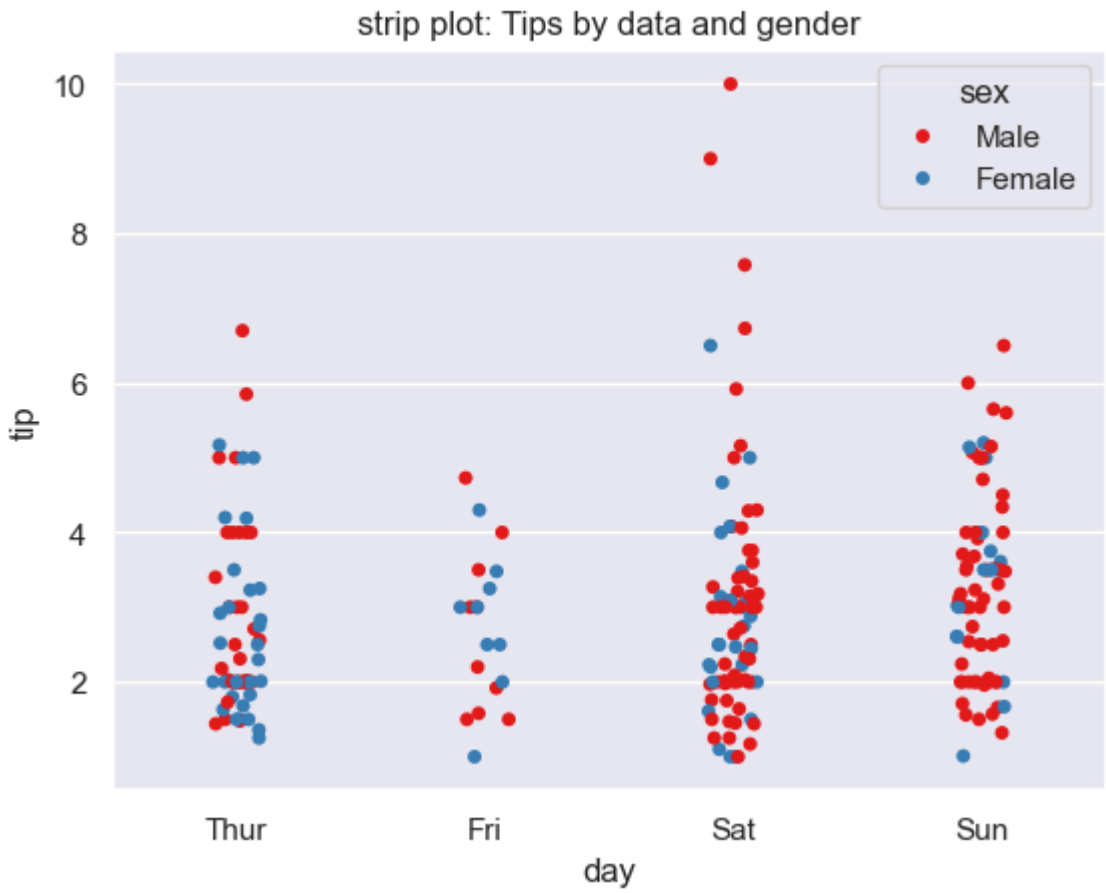
In [32]:
```
# Facetgrid()
g = sns.FacetGrid(tips,col = 'time' , row = 'smoker',margin_titles=True).map(sns
g
```

Out[32]: <seaborn.axisgrid.FacetGrid at 0x29a373174d0>



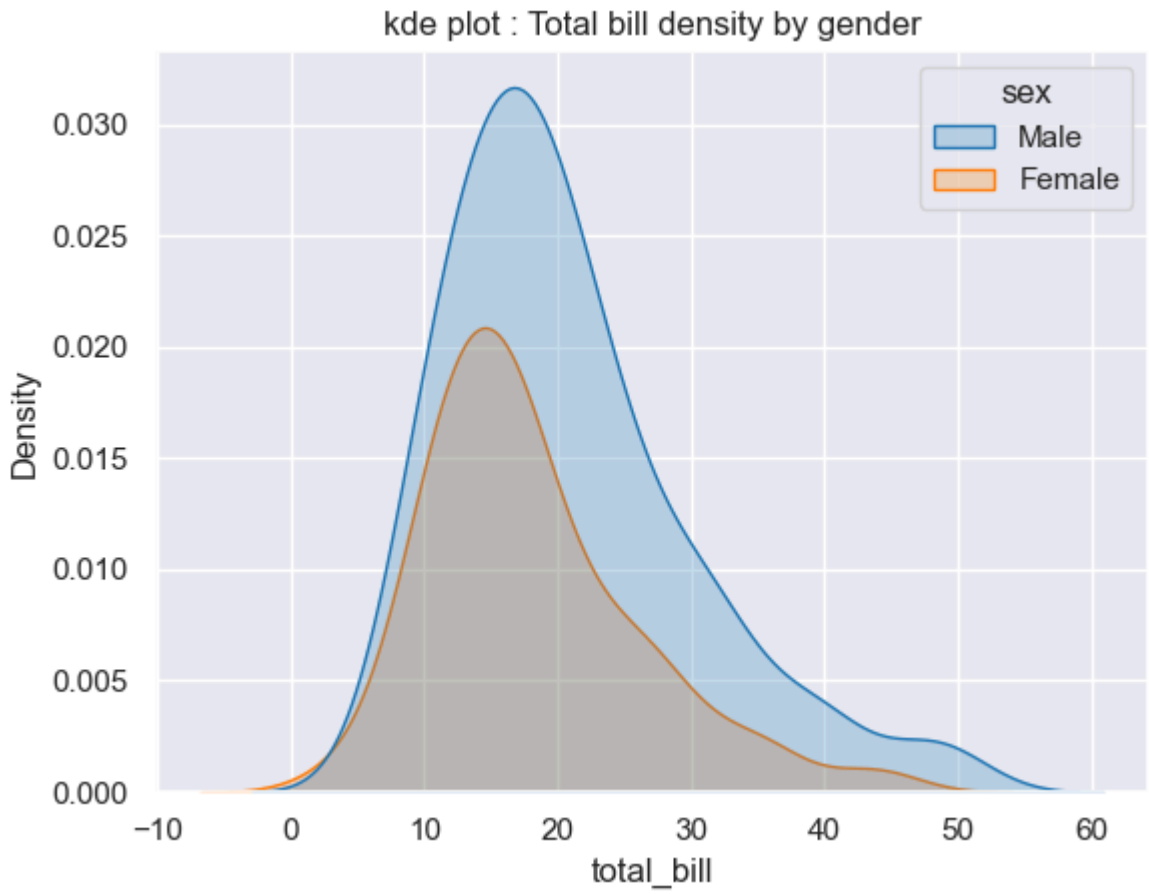
13. strip plot

In [34]:
```
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()
```



14. KDE PLOT

In [39]:
```
sns.kdeplot(data=tips, x='total_bill',hue='sex',fill = True,palette='tab10')
plt.title('kde plot : Total bill density by gender')
plt.show()
```


kde plot : Total bill density by gender
sex
Male
Female
Density
0.030
0.025
0.020
0.015
0.010
0.005
0.000
−10
0
10
20
30
40
50
60
total_bill

In [ ]: