

Data Exploration Using Seaborn

```
In [1]: import pandas as pd
import seaborn as sns
import numpy as np
```

Dataset Tips form seaborn

```
In [2]: tips=sns.load_dataset('tips')
df=pd.DataFrame(tips)
df.head()
```

Out[2]:

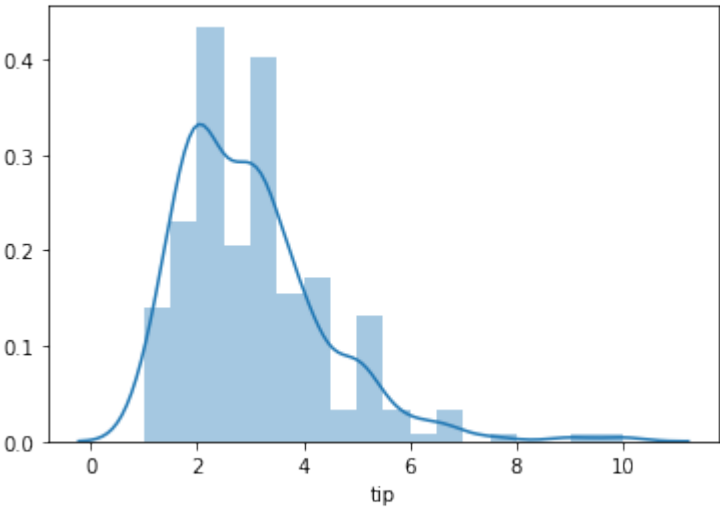
	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

```
In [3]: df.shape
```

Out[3]: (244, 7)

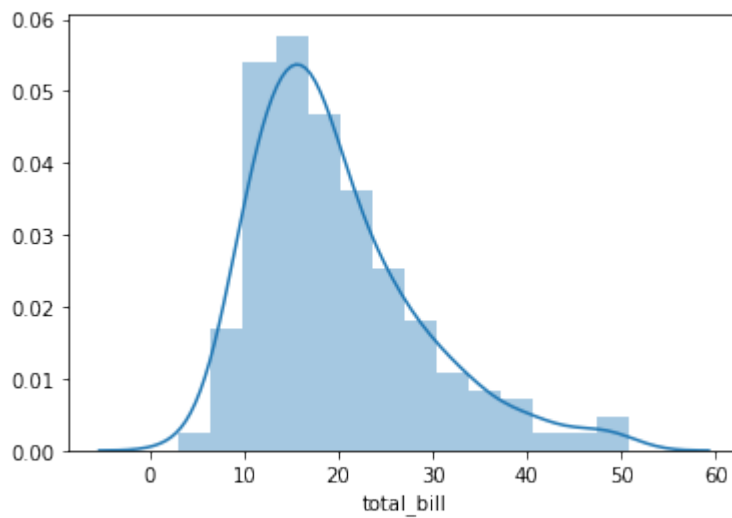
```
In [4]: sns.distplot(df['tip'])
```

Out[4]: <matplotlib.axes._subplots.AxesSubplot at 0x22ecc0ebb38>



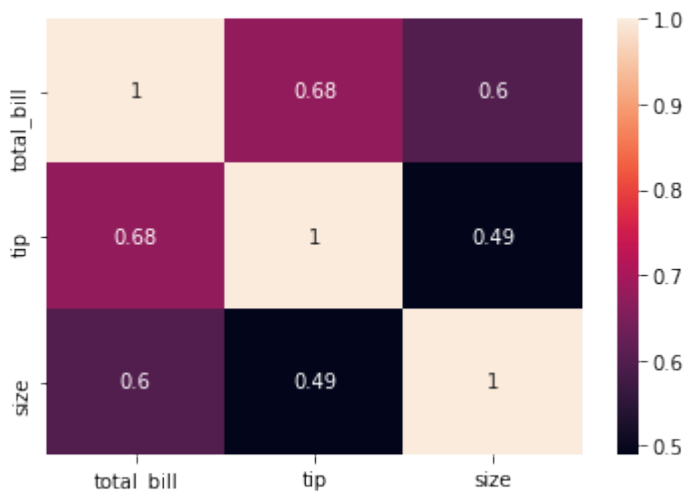
```
In [6]: sns.distplot(df['total_bill'])
```

Out[6]: <matplotlib.axes._subplots.AxesSubplot at 0x22ecd7a6da0>



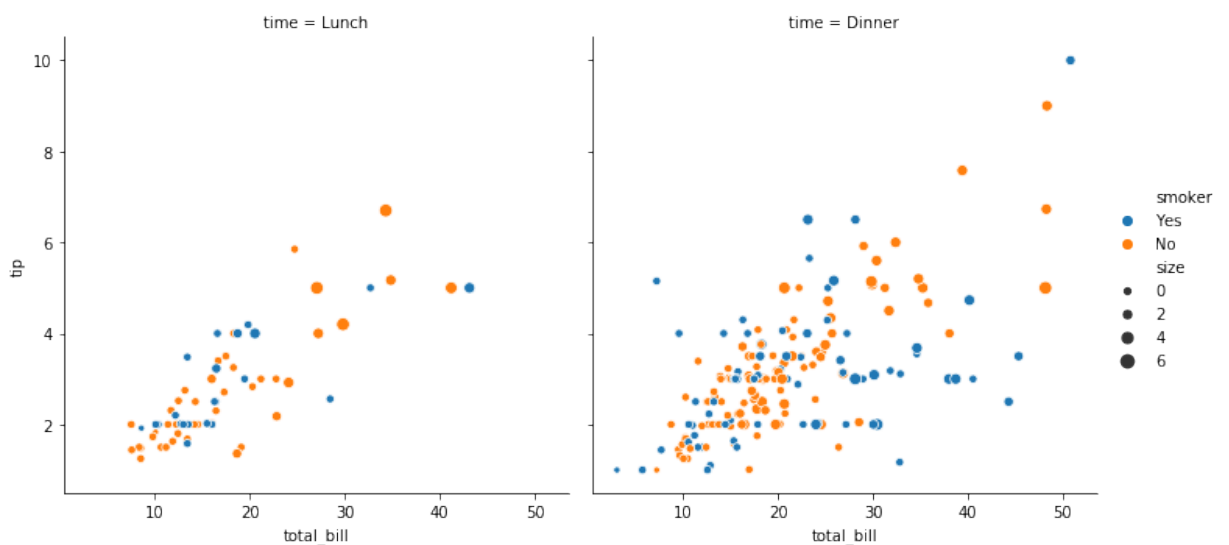
```
In [7]: corr_matrix=df.corr()  
sns.heatmap(data=corr_matrix, annot=True)
```

```
Out[7]: <matplotlib.axes._subplots.AxesSubplot at 0x22ecd8850f0>
```



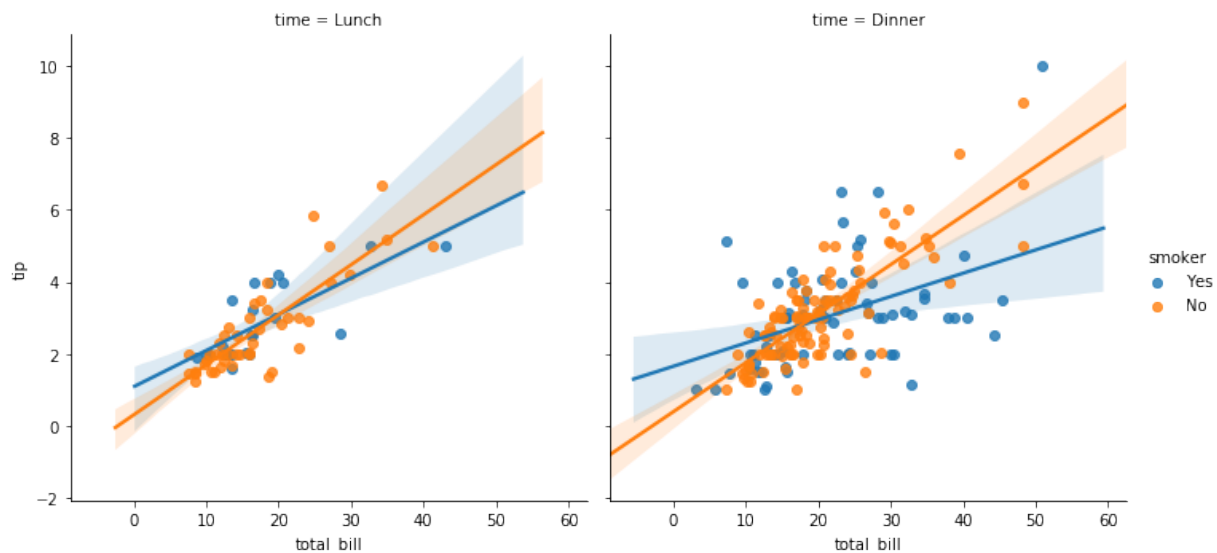
```
In [11]: sns.relplot(x='total_bill', y='tip', data=df, col='time', hue='smoker',  
size='size')
```

```
Out[11]: <seaborn.axisgrid.FacetGrid at 0x22ecda46198>
```



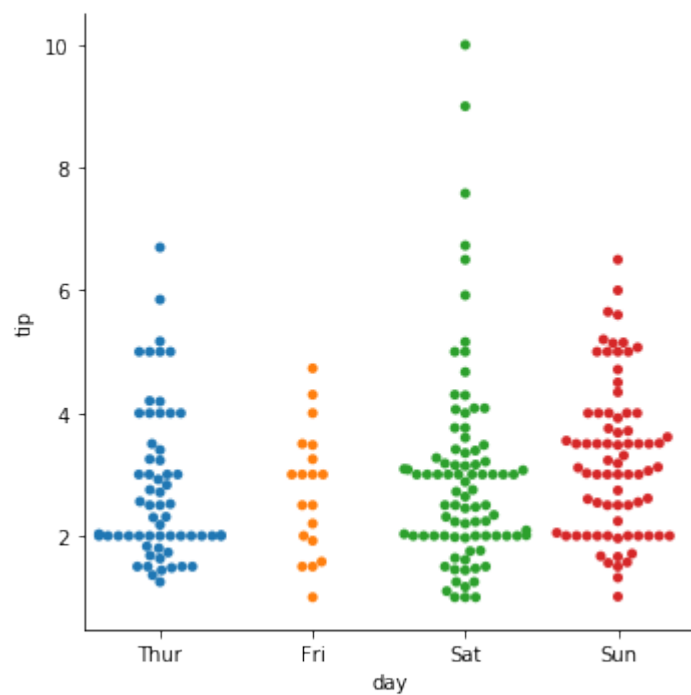
```
In [13]: sns.lmplot(x='total_bill', y='tip', data=df, col='time', hue='smoker')
```

Out[13]: <seaborn.axisgrid.FacetGrid at 0x22ecdd21198>



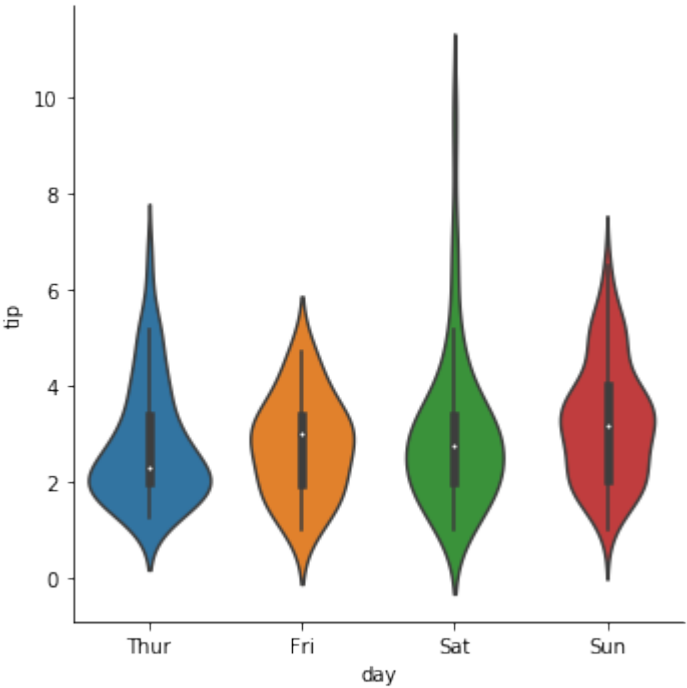
```
In [15]: sns.catplot(x='day', y='tip', data=df, kind='swarm')
```

Out[15]: <seaborn.axisgrid.FacetGrid at 0x22ecdef0b70>



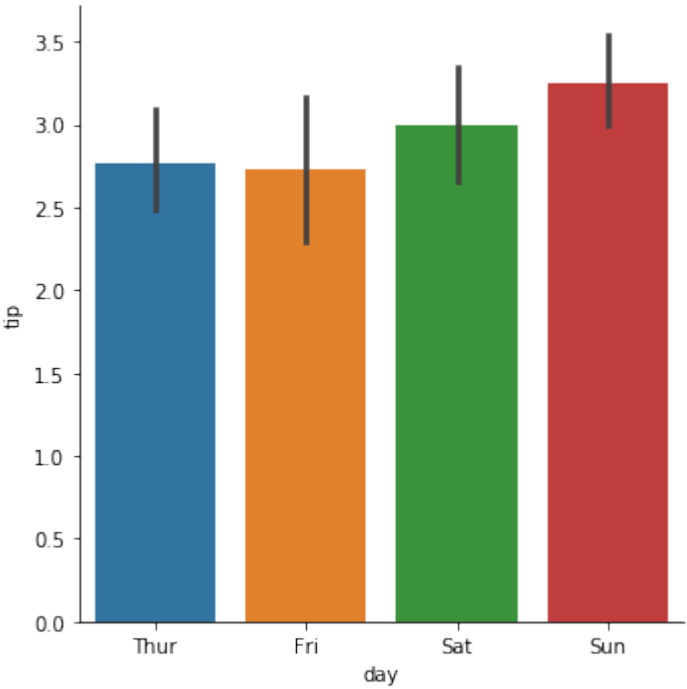
```
In [16]: sns.catplot(x='day', y='tip', data=df, kind='violin')
```

Out[16]: <seaborn.axisgrid.FacetGrid at 0x22ecdf263c8>



```
In [17]: sns.catplot(x='day', y='tip', data=df, kind='bar')
```

Out[17]: <seaborn.axisgrid.FacetGrid at 0x22ecdf0f860>



```
In [ ]:
```