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

import matplotlib as mpl
import matplotlib.pyplot as plt
%matplotlib inline
```

In [2]:
```
from numpy.random import randn,randint,uniform,sample
```

In [3]:
```
#categorical data plotting
#1.boxplot , 2.catplot,3.Stripplot,4.Swimplot
```

In [4]:
```
tips = sns.load_dataset('tips')
```

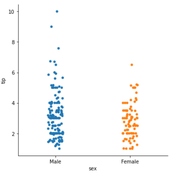
In [5]:
```
tips.head(6)
```

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
5	25.29	4.71	Male	No	Sun	Dinner	4

In [7]:
```
sns.catplot(x='sex',y='tip',data=tips)#sex is the categorical column and tip is the numerica
l column
```

Out[7]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2bad6b50>
```



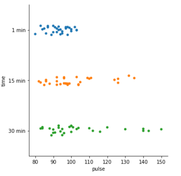
In [9]:
```
exercise = sns.load_dataset('exercise')
exercise.head(8)
```

Out[9]:

	Unnamed: 0	id	diet	pulse	time	kind
0	0	1	low fat	85	1 min	rest
1	1	1	low fat	85	15 min	rest
2	2	1	low fat	88	30 min	rest
3	3	2	low fat	90	1 min	rest
4	4	2	low fat	92	15 min	rest
5	5	2	low fat	93	30 min	rest
6	6	3	low fat	97	1 min	rest
7	7	3	low fat	97	15 min	rest

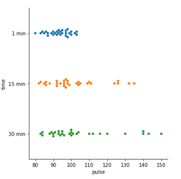
In [10]:
```
sns.catplot(x='pulse',y='time',data=exercise)
```

Out[10]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2a2c5400>
```



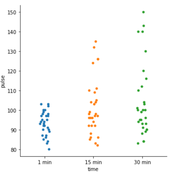
In [11]:
```
#in catplot kind = 'line'/'swarm'/'strip'
sns.catplot(x='pulse',y='time',data=exercise,kind='swarm')
```

Out[11]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2bbdf670>
```



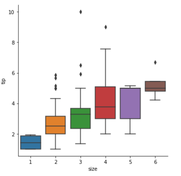
In [12]:
```
sns.catplot(x='time',y='pulse',data=exercise,kind='strip')
```

Out[12]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2bbeddf0>
```



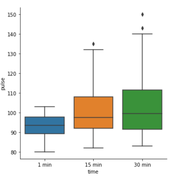
In [14]:
```
sns.catplot(x='size',y='tip',kind='box',data=tips)
```

Out[14]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2bb68f70>
```



In [18]:
```
#To merge the box plot make dodge = False
sns.catplot(x='time',y='pulse',data=exercise,kind='box',dodge = False)
```

Out[18]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2bdf8430>
```



In [21]:
```
diamonds = sns.load_dataset('diamonds')
```

In [22]:
```
diamonds
```

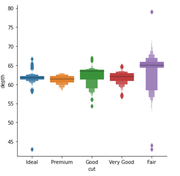
Out[22]:

	carat	cut	color	clarity	depth	table	price	x	y	z
0	0.23	Ideal	E	SI2	61.5	55.0	326	3.95	3.98	2.43
1	0.21	Premium	E	SI1	59.8	61.0	326	3.89	3.84	2.31
2	0.23	Good	E	VS1	56.9	65.0	327	4.05	4.07	2.31
3	0.29	Premium	I	VS2	62.4	58.0	334	4.20	4.23	2.63
4	0.31	Good	J	SI2	63.3	58.0	335	4.34	4.35	2.75
...	...	...	...	...	...	...	...	...	...	...
53935	0.72	Ideal	D	SI1	60.8	57.0	2757	5.75	5.76	3.50
53936	0.72	Good	D	SI1	63.1	55.0	2757	5.69	5.75	3.61
53937	0.70	Very Good	D	SI1	62.8	60.0	2757	5.66	5.68	3.56
53938	0.86	Premium	H	SI2	61.0	58.0	2757	6.15	6.12	3.74
53939	0.75	Ideal	D	SI2	62.2	55.0	2757	5.83	5.87	3.64

53940 rows × 10 columns

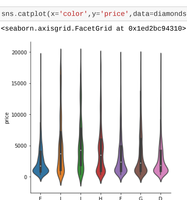
In [26]:
```
sns.catplot(x='cut',y='depth',data=diamonds,kind='boxen')
```

Out[26]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2d17ccd0>
```



In [27]:
```
sns.catplot(x='color',y='price',data=diamonds,kind='violin')
```

Out[27]:
```
<seaborn.axisgrid.FacetGrid at 0x1ed2bc94310>
```



In [ ]:
```
```