

```
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]: df=pd.DataFrame(randn(10,4),columns=["a","b","c","d"])
```

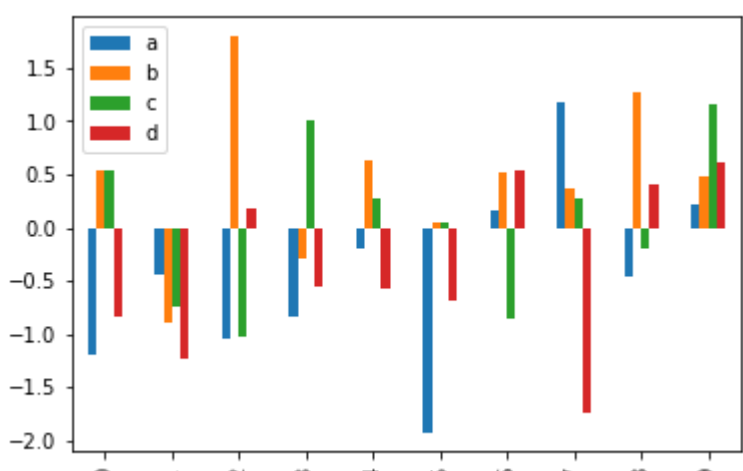
```
In [4]: df
```

Out[4]:

	a	b	c	d
0	-1.193211	0.529732	0.532889	-0.833256
1	-0.445783	-0.904448	-0.737687	-1.243259
2	-1.044139	1.802815	-1.019756	0.171590
3	-0.841163	-0.288375	1.012118	-0.561910
4	-0.199482	0.637932	0.280890	-0.583268
5	-1.923525	0.039911	0.054166	-0.681353
6	0.157215	0.518272	-0.851416	0.537937
7	1.187321	0.362311	0.264091	-1.741014
8	-0.458018	1.264746	-0.206089	0.408721
9	0.225712	0.474561	1.151039	0.617853

```
In [5]: df.plot(kind='bar')
```

Out[5]: <matplotlib.axes._subplots.AxesSubplot at 0x228e4b51250>



```
In [6]: tips = sns.load_dataset('tips')
tips.head(5)
```

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

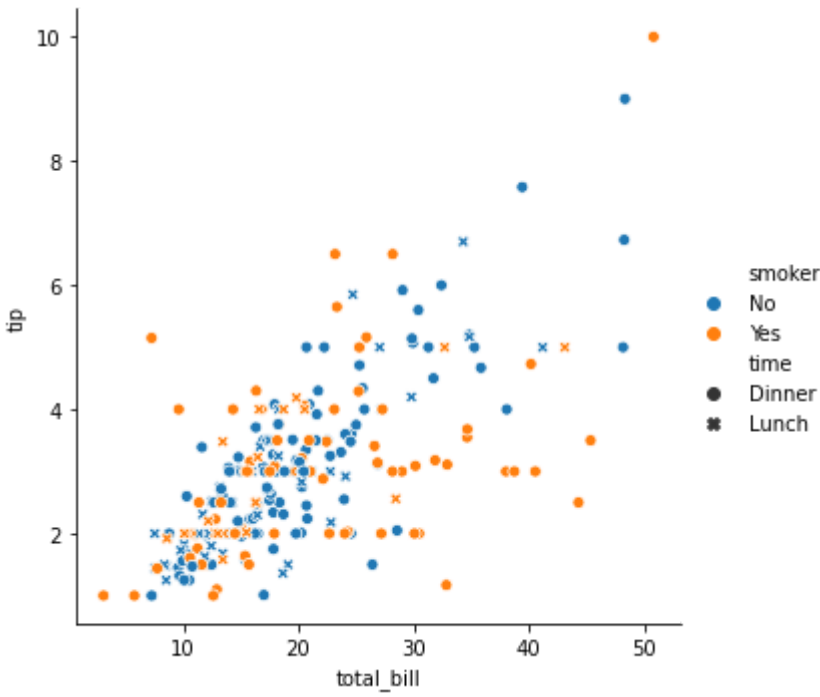
```
In [7]: tips['size']
```

Out[7]:

```
0      2
1      3
2      3
3      2
4      4
..
239    3
240    2
241    2
242    2
243    2
Name: size, Length: 244, dtype: int64
```

```
In [8]: sns.relplot(x='total_bill',y='tip',data=tips,hue='smoker',style='time')
```

Out[8]: <seaborn.axisgrid.FacetGrid at 0x228e52e63d0>



```
In [9]: #style is based on the size of color
#hue is based on color
```

```
In [10]: from numpy.random import randn
```

```
In [13]: df = pd.DataFrame(dict(time = np.arange(500),value = randn(500).cumsum()))
```

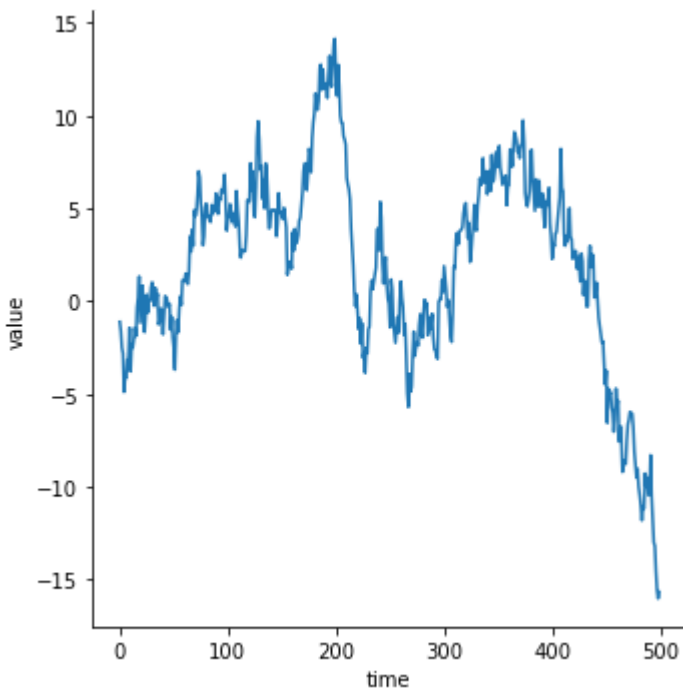
```
In [14]: df.head()
```

Out[14]:

	time	value
0	0	-1.108622
1	1	-1.606980
2	2	-2.509697
3	3	-2.829060
4	4	-4.889057

```
In [16]: sns.relplot(x='time',y='value',data=df,sort=True,kind='line')
```

Out[16]: <seaborn.axisgrid.FacetGrid at 0x228e5322b20>



```
In [17]: fmri = sns.load_dataset('fmri')
```

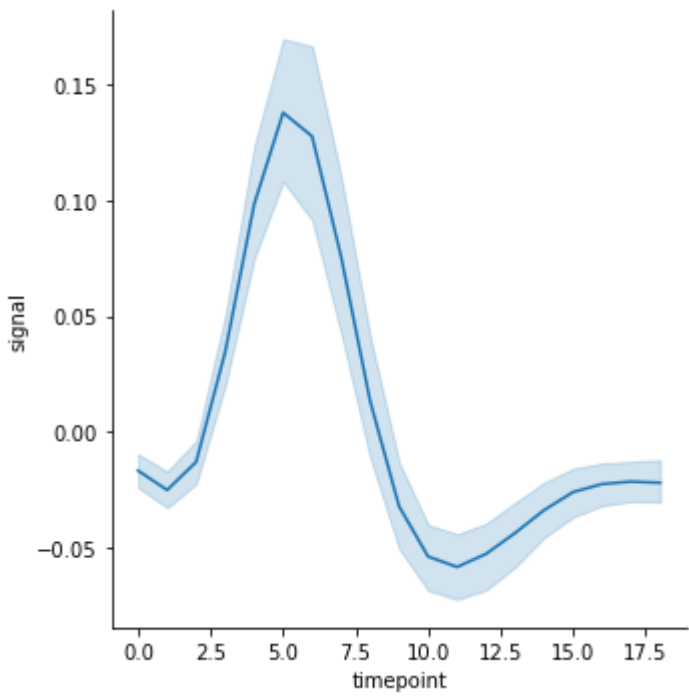
```
In [18]: fmri.tail()
```

Out[18]:

	subject	timepoint	event	region	signal
1059	s0	8	cue	frontal	0.018165
1060	s13	7	cue	frontal	-0.029130
1061	s12	7	cue	frontal	-0.004939
1062	s11	7	cue	frontal	-0.025367
1063	s0	0	cue	parietal	-0.006899

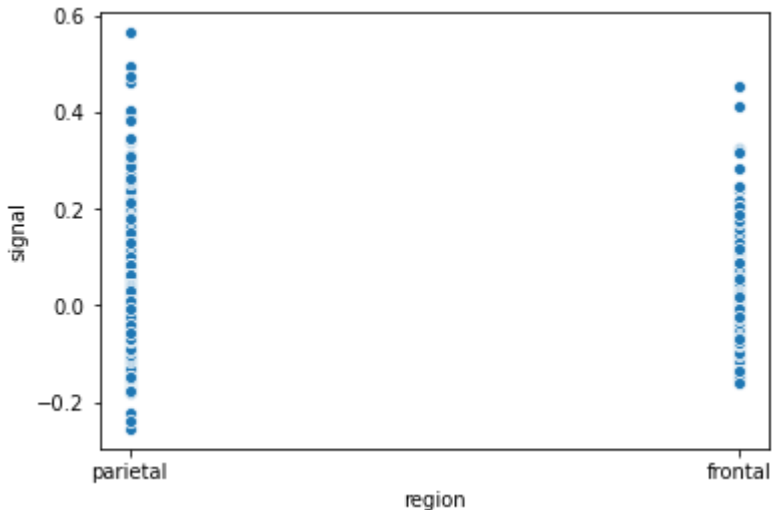
```
In [20]: sns.relplot(x='timepoint',y='signal',kind='line',data=fmri)
```

Out[20]: <seaborn.axisgrid.FacetGrid at 0x228e5625fd0>



```
In [22]: sns.scatterplot(x='region',y='signal',data=fmri)
```

Out[22]: <matplotlib.axes._subplots.AxesSubplot at 0x228e53cfc10>



```
In [ ]:
```