Pandas Playground- Michael Lanier

December 7, 2016

```
In [10]: import pandas as pd
         import numpy as np
         import matplotlib.pyplot as plt

In [2]: ts = pd.Series(np.random.randn(1000),
                        index=pd.date_range('1/1/2000', periods=1000))

In [3]: ts = ts.cumsum()

In [8]: ts.plot()

Out[8]: <matplotlib.axes._subplots.AxesSubplot at 0x7f3cf7b4a3c8>

In [11]: plt.show()
```
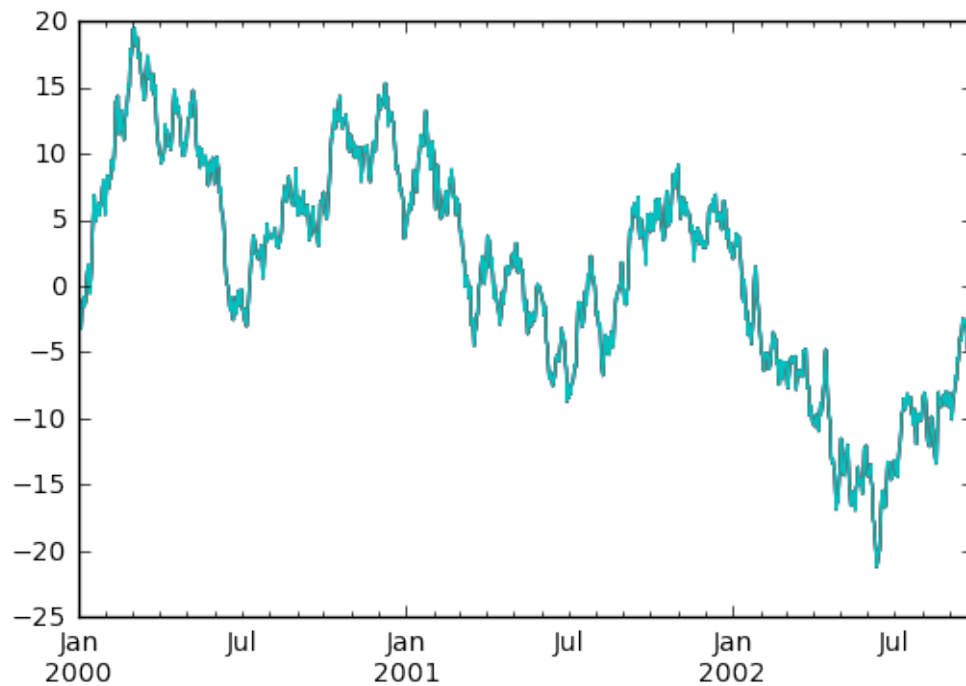
```
In [12]:   df = pd.DataFrame(np.random.randn(1000, 4),
                             index=ts.index, columns=list('ABCD'))

           df = df.cumsum()

           plt.figure(); df.plot();

In [13]: plt.show()

<matplotlib.figure.Figure at 0x7f3cc1c54d68>
```
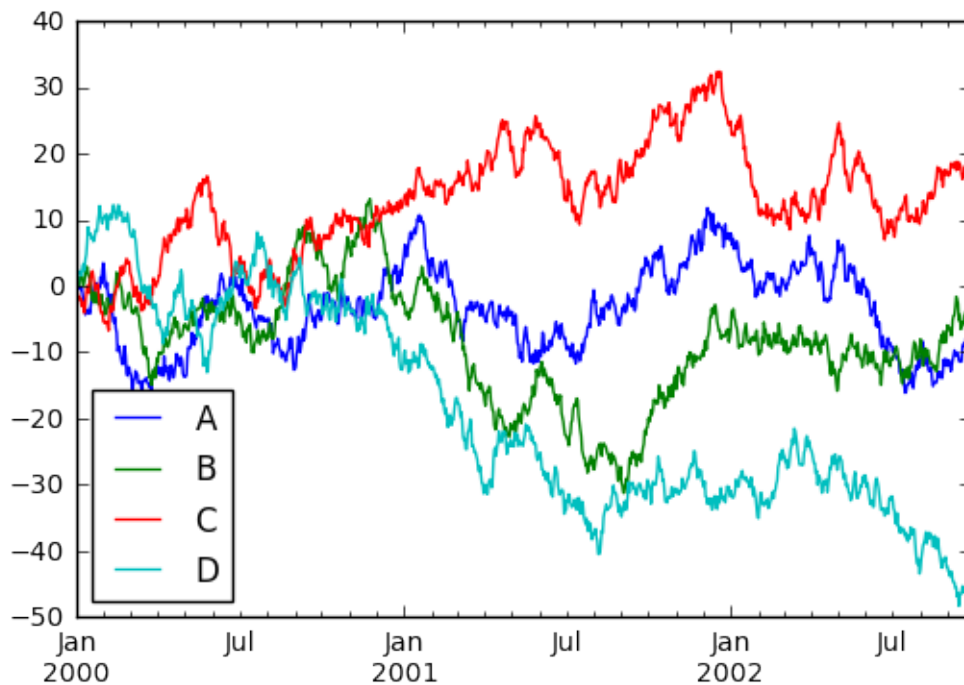


```
In [14]: ts.describe()

Out[14]: count    1000.000000
         mean        1.344488
         std         8.369861
         min       -21.226486
         25%        -4.847585
         50%         2.471992
         75%         7.331394
         max        19.502199
         dtype: float64

In [20]: ts.plot(kind='density')
```
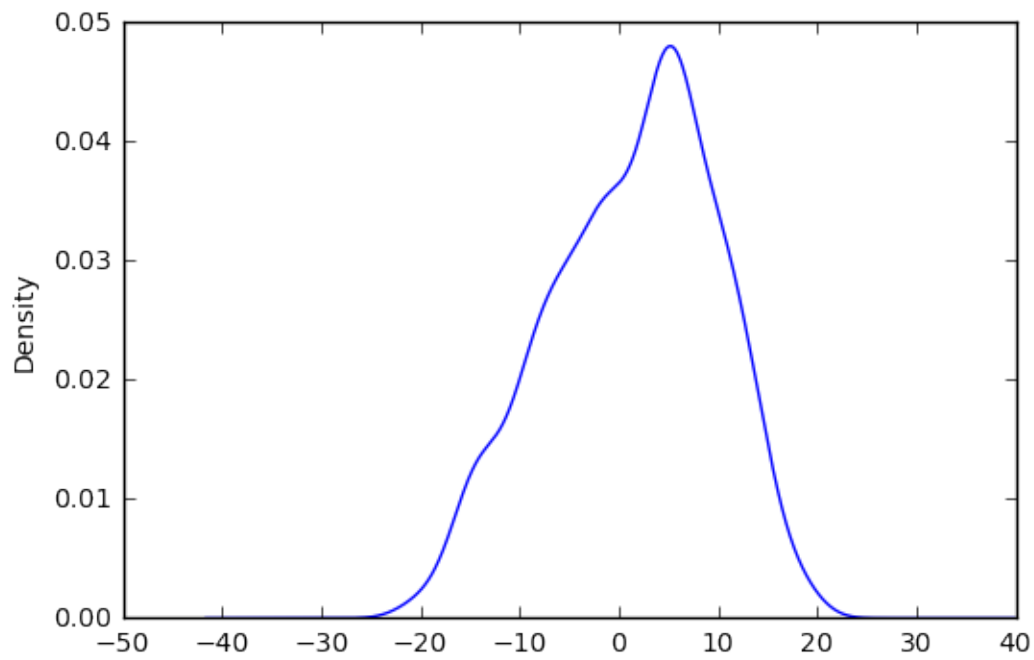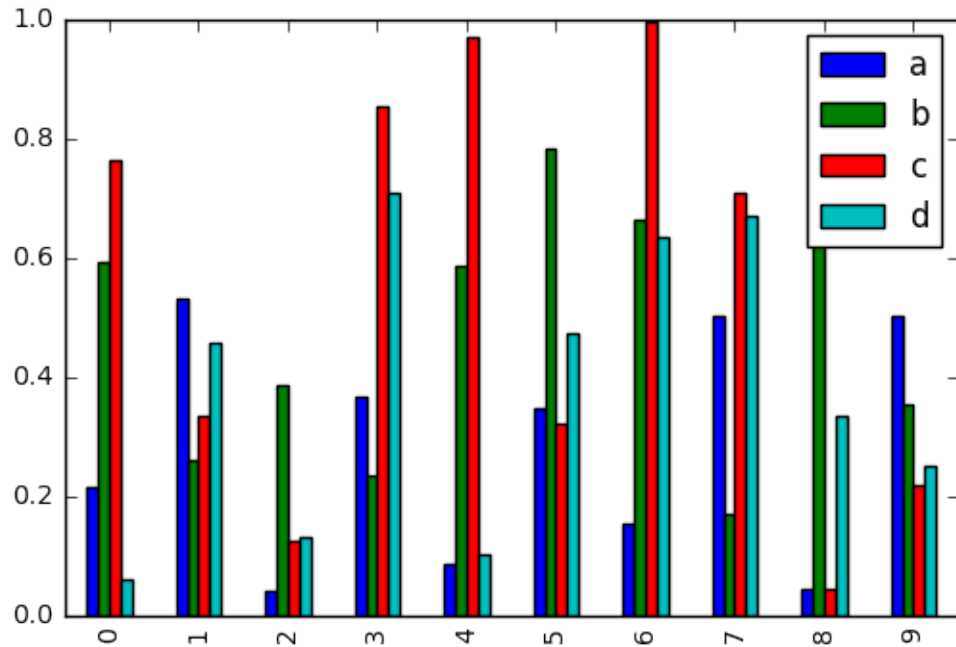
2

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Out[20]: <matplotlib.axes._subplots.AxesSubplot at 0x7f3cc58d5710>

In [21]: plt.show()
```
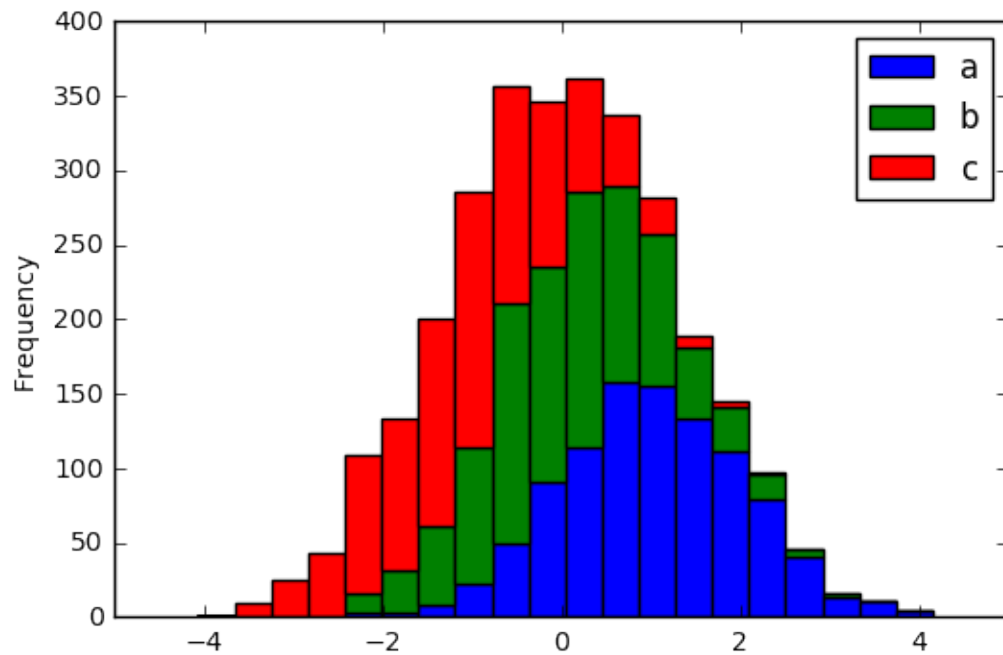


```
In [22]: df2 = pd.DataFrame(np.random.rand(10, 4), columns=['a', 'b', 'c', 'd'])

         df2.plot.bar();
         plt.show()
```
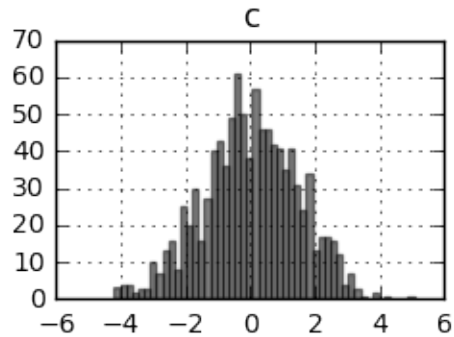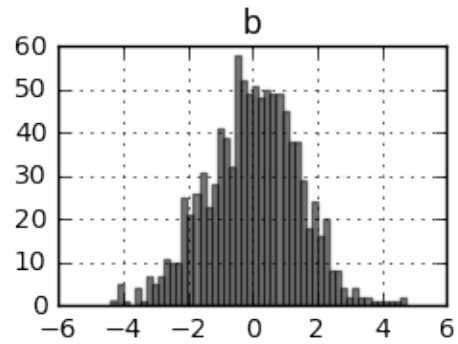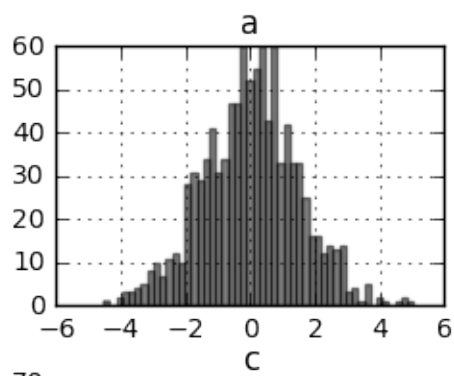
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In [24]: df4 = pd.DataFrame({'a': np.random.randn(1000) + 1,
                             'b': np.random.randn(1000),
                             'c': np.random.randn(1000) - 1},
                            columns=['a', 'b', 'c'])

In [25]: df4.plot.hist(stacked=True, bins=20)
         plt.show()
```
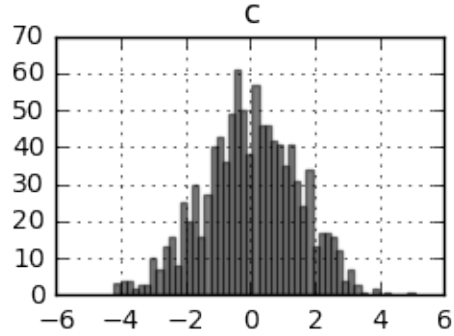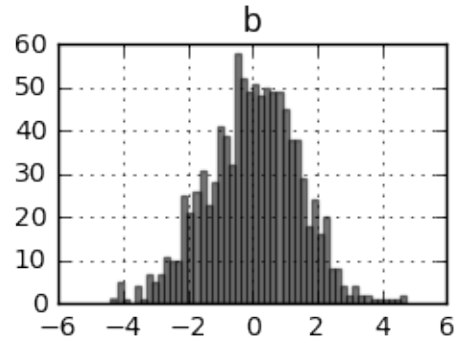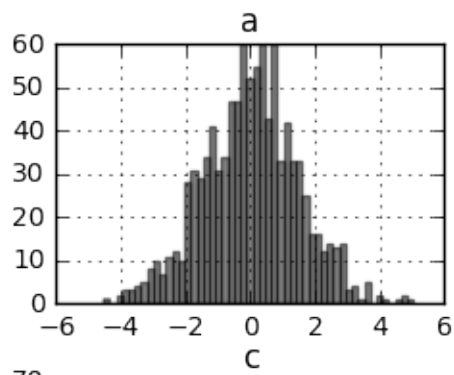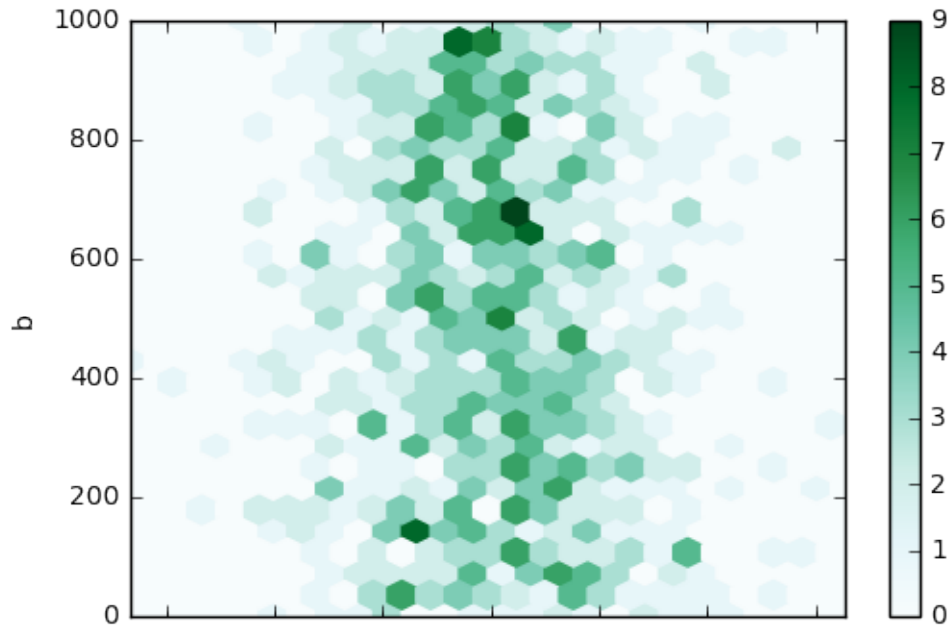
```
In [27]: df4.diff().hist(color='k', alpha=0.5, bins=50)
         plt.show()
```

```
In [29]: plt.show
         df = pd.DataFrame(np.random.randn(1000, 2), columns=['a', 'b'])
         df['b'] = df['b'] + np.arange(1000)
         df.plot.hexbin(x='a', y='b', gridsize=25)
         plt.show()
         plt.savefig("temp.png")
```



```
In [ ]:
```