In [1]:
```
import numpy as np
```

In [2]:
```
import pandas as pd
import seaborn as sns
from matplotlib import pyplot as plt
```

In [3]:
```
import warnings
warnings.filterwarnings('ignore')
```

In [4]:
```
beml=pd.read_csv("C:\\Users\\Pranav\\Desktop\\DATA SCIENCE DATA\\CVC file\\BEML.csv")
```

In [5]:
```
beml.head()
```

Out[5]:

	Date	Open	High	Low	Last	Close	Total Trade Quantity	Turnover (Lacs)
0	2010-01-04	1121.0	1151.00	1121.00	1134.0	1135.60	101651.0	1157.18
1	2010-01-05	1146.8	1149.00	1128.75	1135.0	1134.60	59504.0	676.47
2	2010-01-06	1140.0	1164.25	1130.05	1137.0	1139.60	128908.0	1482.84
3	2010-01-07	1142.0	1159.40	1119.20	1141.0	1144.15	117871.0	1352.98
4	2010-01-08	1156.0	1172.00	1140.00	1141.2	1144.05	170063.0	1971.42

In [6]:
```
glaxo=pd.read_csv("C:\\Users\\Pranav\\Desktop\\DATA SCIENCE DATA\\CVC file\\GLAXO.csv")
```

In [7]:
```
glaxo.head()
```

Out[7]:

	Date	Open	High	Low	Last	Close	Total Trade Quantity	Turnover (Lacs)
0	2010-01-04	1613.00	1629.10	1602.00	1629.0	1625.65	9365.0	151.74
1	2010-01-05	1639.95	1639.95	1611.05	1620.0	1616.80	38148.0	622.58
2	2010-01-06	1618.00	1644.00	1617.00	1639.0	1638.50	36519.0	595.09
3	2010-01-07	1645.00	1654.00	1636.00	1648.0	1648.70	12809.0	211.00
4	2010-01-08	1650.00	1650.00	1626.55	1640.0	1639.80	28035.0	459.11

In [8]:
```
beml_df=beml[['Date','Close']]
glaxo_df=glaxo[['Date','Close']]
```

In [9]:
```
beml_df.head()
```

Out[9]:

	Date	Close
0	2010-01-04	1135.60
1	2010-01-05	1134.60
2	2010-01-06	1139.60
3	2010-01-07	1144.15
4	2010-01-08	1144.05

In [10]:
```
glaxo_df.head()
```

Out[10]:

	Date	Close
0	2010-01-04	1625.65
1	2010-01-05	1616.80
2	2010-01-06	1638.50
3	2010-01-07	1648.70
4	2010-01-08	1639.80

In [11]:
```
beml_df=beml_df.set_index(pd.DatetimeIndex(beml_df['Date'])).drop('Date',axis=1)
glaxo_df=glaxo_df.set_index(pd.DatetimeIndex(glaxo_df['Date'])).drop('Date',axis=1)
```

In [12]:
```
beml_df.head()
```

Out[12]:

Date	Close
2010-01-04	1135.60
2010-01-05	1134.60
2010-01-06	1139.60
2010-01-07	1144.15
2010-01-08	1144.05

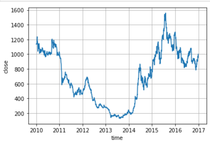
In [13]:
```
glaxo_df.head()
```

Out[13]:

Date	Close
2010-01-04	1625.65
2010-01-05	1616.80
2010-01-06	1638.50
2010-01-07	1648.70
2010-01-08	1639.80

In [14]:
```
plt.plot(glaxo_df)
plt.xlabel('time')
plt.ylabel('close')
plt.grid(True)
plt.show()
```

In [15]:
```
plt.plot(beml_df)
plt.xlabel('time')
plt.ylabel('close')
plt.grid(True)
plt.show()
```



In [16]:
```
glaxo_df['gain']=glaxo_df.Close.pct_change(periods=1)
beml_df['gain']=beml_df.Close.pct_change(periods=1)
```

In [17]:
```
glaxo_df=glaxo_df.dropna()
beml_df=beml_df.dropna()
```

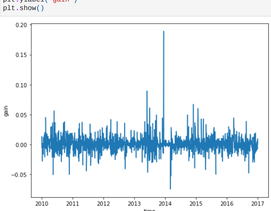
In [18]:
```
glaxo_df
```

Out[18]:

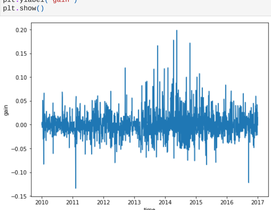
Date	Close	gain
2010-01-05	1616.80	-0.005444
2010-01-06	1638.50	0.013422
2010-01-07	1648.70	0.006225
2010-01-08	1639.80	-0.005398
2010-01-11	1629.45	-0.006312
...	...	...
2016-12-26	2723.50	-0.001283
2016-12-27	2701.75	-0.007986
2016-12-28	2702.15	0.000148
2016-12-29	2727.90	0.009529
2016-12-30	2729.80	0.000697

1738 rows × 2 columns

In [19]:
```
plt.figure(figsize=(8,6))
plt.plot(glaxo_df.index,glaxo_df.gain)
plt.xlabel('time')
plt.ylabel('gain')
plt.show()
```



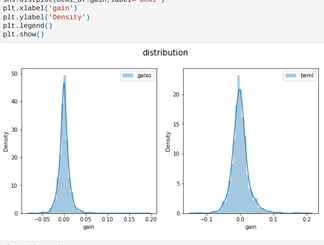
In [20]:
```
plt.figure(figsize=(8,6))
plt.plot(beml_df.index,beml_df.gain)
plt.xlabel('time')
plt.ylabel('gain')
plt.show()
```



In [22]:
```
plt.figure(figsize=(10,5))
plt.subplot(1,2,1)

plt.suptitle('distribution',fontsize=15)
sns.distplot(glaxo_df.gain,label='galxo')
plt.xlabel('gain')
plt.ylabel('Density')
plt.legend()

plt.subplot(1,2,2)
sns.distplot(beml_df.gain,label='beml')
plt.xlabel('gain')
plt.ylabel('Density')
plt.legend()
plt.show()
```



In [23]:
```
glaxo_df.mean()
```

Out[23]:
```
Close    2533.153596
gain        0.000386
dtype: float64
```

In [24]:
```
glaxo_df.std()
```

Out[24]:
```
Close    540.441532
gain       0.013361
dtype: float64
```

In [ ]: