stock

Date

Operation date_range()..

```
drng = pd.date_range(start='1/1/2017', end='1/6/2017',
                     freq='D')
```

call

drng

Output

```
DatetimeIndex(['2017-1-1', '2017-1-2', '2017-1-3', '2017-1-4',
               '2017-1-5', '2017-1-6'],
```

call

datas2

	date	city	temperature	humidity	wind-speed
0	2024-4-1	NewYork	70	50	10
1	2024-4-1	LosAngeles	75	55	12
2	2024-4-2	NewYork	72	48	9
3	2024-4-2	LosAngeles	77	60	11
4	2024-4-3	NewYork	68	52	8
5	2024-4-3	LosAngeles	73	57	13

datas2.set_index(drng, inplace=True)

call

datas2

	date	city	temperature	humidity	wind-speed
2017-1-1	2024-4-1	NewYork	70	50	10
2017-1-2	2024-4-1	LosAngeles	75	55	12
2017-1-3	2024-4-2	NewYork	72	48	9
2017-1-4	2024-4-2	LosAngeles	77	60	11
2017-1-5	2024-4-3	NewYork	68	52	8
2017-1-6	2024-4-3	LosAngeles	73	57	13

```
stock['2017-12-27':'2017-12-30'].Close.mean()
```

Output

69.91

Change the freq of a dataframe

```
stock.asfreq('B')
```

Date	Open	High	Low	Close	Volume	Nam
2006-1-3	39.69	41.22	38.79	40.91	24232[illegible].0	AA
2006-1-4	41.22	41.90	40.77	40.97	20552[illegible]	4
2006-1-5	40.93	41.73	40.85	41.53	28294[illegible]	4
2006-1-6	42.88	43.57	42.80	43.21	2942[illegible]	4
2006-1-9	43.10	43.66	42.82	43.42	1626[illegible]	4
...	...	...	...	...	...	...
2017-12-25	NaN	NaN	NaN	NaN	NaN	NaN
2017-12-26	70.94	71.39	69.63	69.86	842807	AA
2017-12-27	69.77	70.49	69.69	70.06	634512.0	4
2017-12-28	70.12	70.32	69.51	69.82	755672	4
2017-12-29	69.79	70.13	69.43	69.85	66130	4

3129 rows × 6 columns

```
stock.asfreq('W', method='pad')
```

Date	Open	High	Low	Close	Volume	Name
2006-1-8	42.88	43.57	42.80	43.21	2942[illegible]	AABA
2006-1-15	41.00	41.08	39.62	39.90	30966[illegible]	4
2006-1-22	34.44	34.66	33.21	33.74	57621[illegible]	4
2006-1-29	35.26	35.27	34.66	35.09	2432[illegible]	4
2006-2-25	34.00	34.05	33.26	33.54	3264[illegible]	4
...	...	...	...	...	...	...
2017-11-26	72.47	73.18	72.31	72.93	3356[illegible]	AABA
2017-12-3	69.80	71.25	69.47	70.10	197129[illegible]	4
2017-12-10	71.00	71.63	70.82	71.25	70212[illegible]	4
2017-12-17	69.35	70.54	68.66	70.29	1951[illegible]	4
2017-12-24	71.42	7187	71.22	71.58	1097[illegible]	4

```
stock.asfreq('D', method='pad')
```

Output

same data but data represent Day wise like 2006-1-3, 2006-1-4, 2006-1-5 ... soon

Create Date Range with periods

```
pd.date_range(start='1/1/2017', periods=22, freq='D')
```

Output

```
DatetimeIndex(['2017-1-1', '2017-1-2', ..... '2017-1-22'],
              dtype='datetime64[ns]', freq='D'
```

```
test_range = pd_range(start='1/1/2017', periods=2
                      freq='D')

import numpy as np
num_series = pd.Series(np.random.randint(1,100,
                       len(test_range)), index=test_range
```

(all) →

```
num_series
```

Output

```
2017-1-1    57
2017-1-2    63
soon
2017-1-22   39
Freq:D, dtype: int32
```

Errors.. In to_datetime()

⊙ pd.to_datetime('abc')
Output
↳ It show error (Unknown date string format)

⊙ pd.to_datetime('abc', errors='ignore')
Output
'abc'

⊙ pd.to_datetime('abc', errors='coerce')
Output
NaT

```
pd.to_datetime('01-1-2019', format='%d-%m-%Y')
```

Output
Timestamp('2019-1-1 00:00:00')

Add a value to the date

```
data = pd.to_datetime('01-01-2019', format='%d-%m-%Y')

date + pd.DateOffset(months=5)
```

Output

```
Timestamp('2019-6-1  00:00:00')
```

Period

```
P = pd.Period(2019)

p1 = pd.Period('2017-1')

p.start_time
```

Output

```
Timestamp('2019-1-1  00:00:00')

P.end_time
```

Output

```
Timestamp('2019-12-31  23:59:59.999999999')

p.year
```

Output

```
2019

p.asfreq('M', how='start')
```

Output

```
Period('2019-1', 'M')
```