

2) Time series analysis:

> It is a specific way of analyzing a sequence of data points collected over an interval of time.

> Analysts record data points at consistent intervals over a set period of time rather than just recording the data points intermittently or randomly.

Why Time series?

> It helps organizations understand the underlying causes of trends & patterns over time.

> Using data visualizations, business users can see seasonal trends and dig deeper into why these occur.

Examples :

> It is used for non-stationary data.

> Industries like finance, retail and economies frequently use time series analysis.

> stock market analysis is an excellent eg of TSA.

> Also used in weather data, Industry forecasts, Interest rates, Temperature readings.

Program for time series analysis.

```
import matplotlib.pyplot as plt
```

```
from datetime import datetime,  
time delta,
```

```
plt.style.use('mabern').
```


dates = [

datetime (2020, 7, 12),

datetime (2020, 7, 13),

datetime (2020, 7, 15),

datetime (2020, 7, 17),

datetime (2020, 7, 19),

datetime (2020, 7, 21),

datetime (2020, 7, 23),

]

y = [0, 1, 2, 3, 4, 5, 6]

plt.plot(dates, y)

plt.tight_layout()

plt.show()

