Benefits the Health care industry. Prevent the user from unknown or any underlying health issues.

Time Series forecasting can be done either using statistical or deep learning methods.

Preprocessing of data is done. Anomaly or outlier detection and filtering or smoothing of the data is done.

Sensor data is sent periodically via wireless links to a personal computer that analyses the data.

Sensors monitor vital signs, such as heartbeats, pulse rates, and oxygen saturation, of senior citizens.

**TIME SERIES DATA USE CASE**

**Context**:

Assisted living and residential monitoring through wireless automated ECG system. Develop a system that collects, stores, analyses, the data. The physiological sensors are used to constantly monitor the vitals.

**Target Industry:**

HealthCare Industry

**Business goal:**

**🡪**Used in Medical Industry.

🡪Helps to store the vital signs of each patient.

🡪Which in turn helps in predicting or treating any underlying health issue of a person.

🡪Reduces the time taken to start the treatment.

**Incoming data:**

🡪A measurement per fixed time interval

🡪Resulting in a Time Series containing a timestamp and the corresponding heartbeats, pulse rates, and oxygen saturation.

**Processing:**

🡪As the values come from a sensor, they might be corrupted by noise and outliers

🡪Pre-processing necessary

🡪Anomaly detection can be done.

🡪 Filtering and Smoothing of the data is done if necessary.

**Benefits:**

🡪Regular and automatic health check-ups.

🡪Prevent the user from unknown or any underlying health issues.

🡪Improve Health care industry.

**Degree of dependence between the time series entries:**

The data recorded over the period predicts the health condition of a person. The trend followed shows if there are any abnormalities in the health condition of a person.

**Simple Time series graph of a person with mean Arterial pressure**

