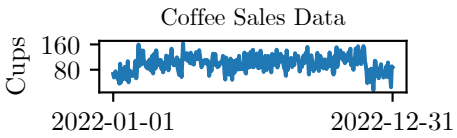
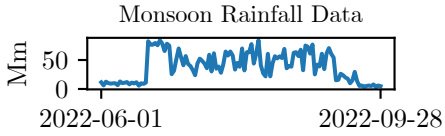
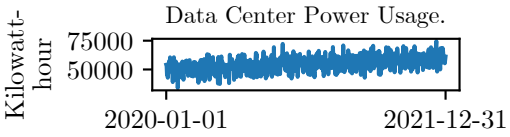


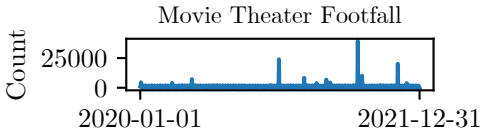
We track the daily coffee sales in a small café located near a college. Sales might increase during exam periods when students stay up late. The sample rate will be daily over a year (365 observations).



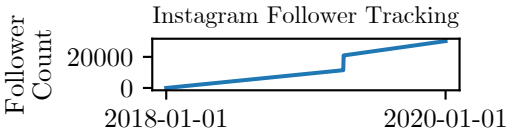
Consider a scenario of rainfall measuring agency operating in a region known to be affected by monsoon yearly. The agency measures daily rainfall, recorded in mm, over the span of one monsoon season (120 days). Significant external events are monsoon onset and monsoon offset which substantially increase and decrease rainfall respectively.



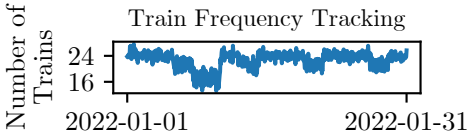
The scenario involves monitoring the daily power usage of a data center over a period of two years, recorded every day at midnight. Any increases in the usage could likely be related to additional servers being added or peak periods of client activity. Summer heat waves could also boost air conditioning use and hence power consumption.



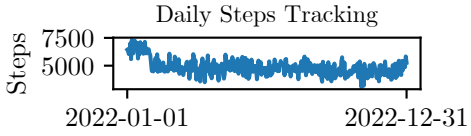
Over a period of two years, the time series is developed to observe and understand the pattern in the footfall count at a movie theater. Here, the external event is the release of blockbuster movies, which greatly increases the footfall. The sample rate of this time series is daily.



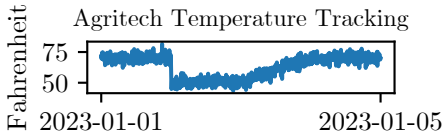
This scenario tracks the daily followers count of a rising Instagram influencer over a 2-year period. The influencer starts with modest followers but gets a significant boost after being featured in a viral video on a popular YouTube channel. The time series is sampled daily and the sample rate is 1 sample per day.



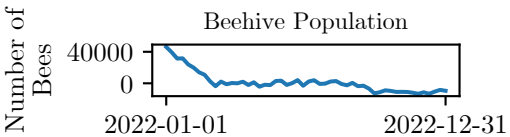
The scenario involves tracking the number of trains passing a particular station per hour over one month. An external event such as a railway strike could result in a decreased number of trains during the strike period. The time series data is sampled every hour.



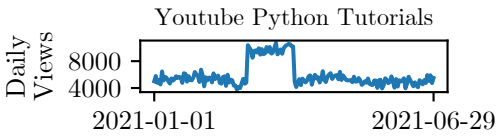
A time series measuring daily steps of a fitness enthusiast. He promised to increase his daily steps due to the new year's resolution starting from January 1. The series will track his steps for 365 days, sampled daily. The external event here is the New Year.



This scenario involves the monitoring of temperature in an agritech controlled environment where special hybrid crops are grown. Let's say on the 3rd day, a power outage occurred, having an impact on the heating system, thus this event will influence an unusual decrease in the temperature.



This scenario involves the tracking of honeybee population in a particular hive over one year. The external event could be a pesticide spray in nearby fields, resulting in a decline of the population. The sample rate is measured weekly, resulting in about 52 observations in a year.



A tech vlogging YouTube channel decides to create a daily series about coding tutorials in Python. The channel launches the series targeting especially beginners. The series gets popularity upon the introduction of a new trending Python library for Machine learning during the month, causing a spike in viewership. The time series will be recorded on a daily basis over a duration of 180 days (6 months).