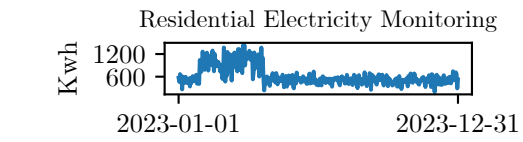
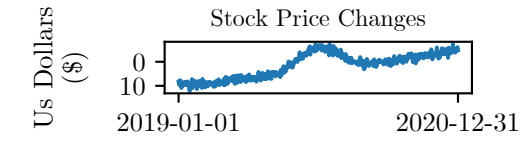




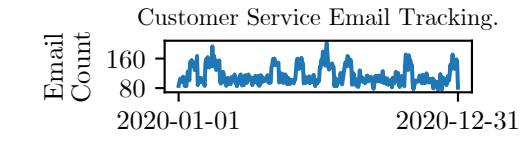
A community fitness challenge leads to an increased usage of a local public park over a span of 30 days. The park's pedestrian counter captures the hourly foot traffic that could be influenced by the challenge. However, external event such as adverse weather conditions could potentially decrease the park visits.



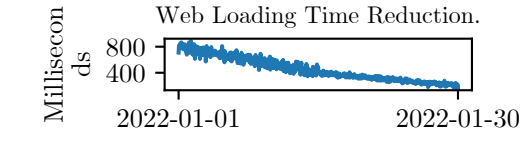
The scenario involves tracking the electricity usage of a residential household over a one-year period, collected every day at midnight. Winter months, roughly between late November and early March, often see high consumption due to the use of heating systems. This external event may cause a surge in the readings. A one-year duration is covered, making the total sample size 365.



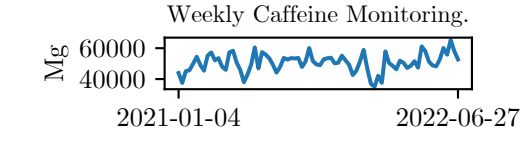
This is a time series of a start-up company's stock price over the course of two years. The business has been steadily growing, but a major scandal involving the CEO caused a sharp decrease in the share price. The stock is monitored daily during trading days (252 days/year).



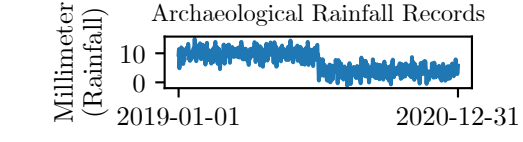
This scenario involves tracking the daily number of emails received by a company's customer service department over a span of one year. The sample rate would be one per day. The external event could be a product launch event causing a rise in customer inquiries and hence more customer service emails.



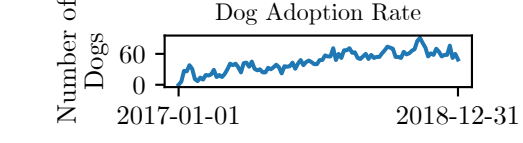
The scenario is the testing of a new website's loading time measured in milliseconds. Over a period of 30 days, developers introduce improvements to reduce loading time and measure every hour. The major external event is the implementation of a new caching strategy on the 15th day, which significantly reduces the loading time.



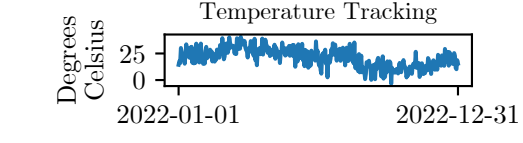
A company tracks its weekly caffeine consumption (in mg) of its employees over 18 months (78 weeks). Every January, due to New Year resolutions, there's a noticeable drop in caffeine intake. The data is collected every Monday, providing a timestamp for each week's data.



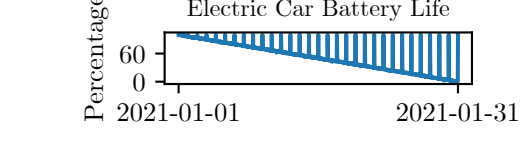
An archaeologist is studying the rainfall over an ancient city. She records daily precipitation levels (in millimeters) for two years. An exceptional drought occurs in the second year. That external event significantly reduces the average precipitation value.



This scenario pertains to an animal shelter's dog adoption rate. The external event includes the implementation of several promotional campaigns. Each campaign is usually impactful for about four weeks. Our shelter records the number of dogs adopted each week over a two-year span.



A meteorology station tracking the average daily temperature in a city over a one-year period could generate a time series. A heatwave, an external event, might cause the temperature readings to rise suddenly. The sample rate for this time series would be a daily reading over 365 days.



The dataset represents the battery life of electric cars at 30-minute intervals over 30 days, measured in percentage. During winter, a rapid drop in temperatures might cause the battery to drain faster, thus affecting the readings. This phenomenon is because cold weather causes batteries to work harder and lose charge quicker than in warm weather.