In this assignment, we process data in JSON format (available at this url: https://waterservices.usgs.gov/nwis/dv/?sites=04092440&format=json&period=P520W), provided by the USGS, to produce a plot of water temperatures over time.

1 Process the data source to extract temperatures

The data source contains several time series, but we want only the daily temperature. Write a script `temp.sh` using `jq` that downloads the data from the URL above, and produces a plain list of temperatures, one number per line. Careful - there are several data series in this document. Make sure you select the first (of three) time series containing water temperatures in Celsius, and not other variables like turbidity or pH.

2 Plot the temperatures using gnuplot

Then, use gnuplot to produce a plot that displays the daily mean temperature as a line chart in pdf format. Label the y axis "Daily Mean Temperature (C)" and the x axis "Days". Label the line "Jackson Park". You must use gnuplot for this assignment. Upload a file called `plot.pdf` containing the above line chart. This part will be manually graded, looking for correct data, gnuplot origin, axis and line labels.