Lab 2: Introduction to Time Series in Pandas

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March 6, 2024

1 Vacation search results

Query "vacation" at Google's trends website for Poland, United, States, and United Kingdom. Download search results from 2004 to the present day. Import csv files. Perform the following tasks:

- Set datetime index for each dataframe.
- Rename columns using country codes (eg. PL) as headers.
- Combine the search counts in one dataframe.
- Present the time series for all countries in one plot.
- Generate descriptive statistics.
- Show three histograms in one plot.
- Show three kernel densities in one plot.

2 Average temperature dataset

Get the average temperature data for St. Louis, Missouri from NOOA website. Please note that the missing values are coded with -99. Perform the following tasks:

- Import dataset.
- Locate missing values and change them to nan.
- Use the interpolate function to put a value in the Nan's place.
- Convert the index to datetime format.
- Plot the average temperature time series, the corresponding histogram, and kernel density plot.
- Generate descriptive statistics.

Where eagles dare. Create a four-column table shown below the temperature plot at the NOOA website