Graphs

Visualization

Graphs

- Using matplotlib
- Used to create many types of graphs

Numpy

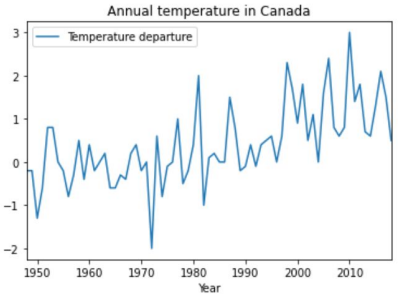
- A part of the SciPi.org
- A python number library
- Used to manipulate numbers
- Docs

Demo

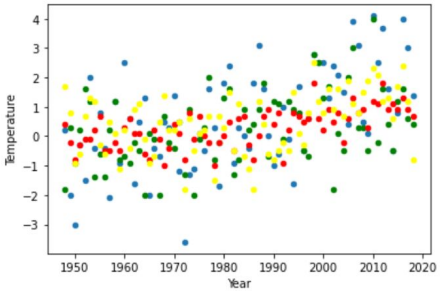
- Bar graph
- Scatter plot
- Change title
  - Add title
  - Change position
  - Change font
  - Multi-line
  - Math
  - Suptitle
- Changing axis
- Margins

In-class Assignment 9

1. Make a line graph with the data from the file using years as the x-axis and the data as the y-axis
    a. File: “Temperature-change-annual-en.csv”
    b. Use the “Temperature departure (degree Celsius)” data
    c. Change the legend to read “Temperature departure”
    d. Add a new title: “Annual temperature in Canada”
    e. Show the plot

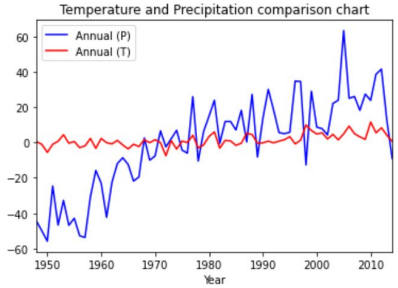


2. Make a scatter plot graph with the data from the file using years as the x-axis and the data as the y-axis
    a. File: “Temperature-change-seasonal-en.csv”
    b. Make each season it’s own color
    c. Change the y-label to read “Temperature”
    d. Show the plot



Assignment 9

1. Create a line graph with the annual precipitation and annual temperature showcased in the seasonal_weather file.
    a. File: “seasonal_weather.csv” created in Assignment 8
    b. Have Temperature in red and precipitation in blue
    c. Add a title: “Temperature and Precipitation comparison chart”



2. Create a scatter plot that showcases the temperature for each of the four seasons.
    a. File: “Temperature-change-seasonal-en.csv”
    b. Use the pyplot scatter method
    c. Set the color of each season to be different
    d. Set the alpha to be different for each season (saturation of dots)
    e. Make the size of the dots reflect the temperature data