**Weather Data Analysis Assignment**

* Due Date: Wednesday, May 3rd no later than 10:00 p.m.
* Purpose: To learn to use the **pandas** package to visualize data.
* You may either complete this assignment individually or with a partner

**Assignment Overview**

Write a Python program in a file named **weather.py** that uses the **pandas** package to visualize the weather data contained in the file weather.csv attached on the detail page. When the program is run, it should produce the [output](https://www.cs.montana.edu/paxton/classes/jbd/assignments/weather/output.txt) in the Python shell (attached) and look like the graph (attached).

**Grading**

* 10 points. The output in the Python shell related to the hottest mean temperature is correct and matches the sample output.
* 10 points. The output in the Python shell related to the coldest mean temperature is correct and matches the sample output.
* 10 points. The output in the Python shell related to the number of days with rain is correct and matches the sample output.
* 10 points. The following characteristics of the graph match the sample graph: the title, the label on the x axis, the label on the y axis, and the box that shows that the max\_temp is red and the min\_temp is blue.
* 10 points. Dates such as 3/10/2012 appear on the x axis.
* 10 points. The maximum temperatures are graphed correctly.
* 10 points. The minimum temperatures are graphed correctly.
* 10 points. All information appears on a single graph.
* 10 points. The graph is 6 inches tall and 12 inches wide.
* 10 points. The Python code is of high quality, properly commented, easy to understand and doesn't contain significant redundancies.

**Helpful Hints**

Assume **weather** is a pandas dataframe. Assume "name-1", "name-2" and "name-3" are column names.

* Select information from the dataframe can be printed as follows: **print(weather[["name-3", "name-1"]])**
* To plot "name-1" on the x-axis and "name-2" on the y-axis: **weather.plot(x="name-1", y="name-2")**
* To add more information to the same graph with data from "name-3" on the y-axis: **weather.name-3.plot()**

**Submission**

E-mail the file named **weather.py** to your instructor by the deadline. The title of the e-mail should be JBD, Weather Assignment, Your Name (, Your Partner's Name if you worked with a partner).

Late submissions will receive no credit, but partial credit can be earned by making an on time submission.