CS 100J - Section 2 LAB Sorting Techniques

Add sorting functionality to pre-existing classes Person and Temperature

Directions:

- 1. Examine TrivialSort.java for an easy example to sorting.
- 2. Examine the <u>Person.java</u> and <u>Temperature.java</u> files. Notice the unimplemented compare method.
- 3. Examine <u>PersonSort.java</u> to see a skeleton driver class for the <u>sort</u> rountine. Note that the sort method is unimplemented.
- 4. Implement the <u>compare</u> methods of <u>Person</u> and <u>Temperature</u>.
- 5. Implement the <u>sort</u> method of <u>PersonSort</u> using any sorting technique you want.
- 6. Adapt the code you wrote for the <u>PersonSort</u> to work for <u>Temperatures</u> (call the new file <u>TemperatureSort.java</u>).

Easy Sorting Technique:

Selection-Sort: O(n2)

This method works by going through a list of n elements, n times. Each time, starting at the first element and running through the n-1th element, exchange the ith and the i+1th element if the i+1th element is of greater value than the ith. See <u>TrivialSort.java</u> for an implementation.

7	5	2	0	9
5	7	2	0	9
5	2	7	0	9
1				
5	2	0	7	9

You can use other sorting techniques if you wish.