PROJECT 4 - BUBBLE SORT

Assigned: Friday, January 10th
Due: Wednesday, January 22nd

Your final project is to implement the bubble sort algorithm. The bubble sort algorithm is as follows:

1. Loop over the items in the list.
2. Compare each item with the item to its right.
3. If the two items are in the wrong order, swap.
4. Repeat steps 1-3 until you loop over the entire list without doing any swaps.

Requirements and Grading

Part 1 - Swap Function

Fill in the code for the *swap index [i] and index [j] in [list]* block. Note, this block is a command block so you don't have to report the result.

For example, if our list was [A, B, C] and we called *swap index [2] and index [3] of [list]*, the the resulting list should be [A, C, B].

Suggested Deadline: End of class on Monday, January 13th
Points: 25

Part 2 - One Iteration

Implement one full iteration of bubble sort. That means your code should loop over the list once and swap any consecutive items that are not in the correct order. Write this code in the *bubble sort [list]* block.

Suggested Deadline: End of class on Thursday, January 16th
Points: 25

Part 3 - All Iterations

Complete the bubble sort algorithm. Your code should now repeat steps 1-3 until it does one full iteration without doing any swaps. This code should be added to the *bubble sort [list]* block.

Suggested Deadline: End of class on Wednesday, January 22nd
Points: 25

Good Style

- No unused code
- Good variable names
- Correct variable types
- Code is easy to understand
- Project handed in on time
- No changes to the graphics
- All code is in the provided Swap and Bubble Sort blocks

Points: 25

Total 100 pts

Submitting Your Project Please email the project to *tealsTeachers@gmail.com.*
Do not forget to include your name!