CSE324 SP2014 Smalltalk Assignment Due: No later than April 19th, 11:55 PM

Write Smalltalk code for the "squeak" interpreter to perform the following (in order):

I. **Main Assignment (100 pts):**

1. Declare the following objects as instances of the class "**OrderedCollection**", each of size 100 elements: **a1** and **a2**.

2. Declare the following objects as instances of the class "**SortedCollection**", each of size 100 elements: **s1**, **s2**, and **s3**.

3. Initialize **a1** to (8 1 2 3 4 5 77 99 33 10 11 22 33 44 55 66 7 2 3 4 7 8 0).

4. In the last **10** items of **a1**:
   a. detect **odd** numbers and store them in a2 (in the order you found them), and
   b. as you are detecting them, **add** them up and store their summation in object "**oddSum**"

5. **Sort** the items in **a1** (in ascending order) and place the result in **s1**.

6. **Sort** the items in **a1** (in descending order) and place the result in **s2**.

7. **Multiply** the corresponding elements of **s1** and **s2**, and **sort** the result in **s3**.

There are many ways to do the same thing, thus your code will be graded for efficiency, i.e., the least number of messages to carry out the above goals.

Your code **must be well commented** (anything between double quotations " " is a comment), and written **in the exact above order** 1. To 7. using the **same objects names**, **otherwise** the graders **will not be able to assign any grades** for your assignment!

B) EXTRA CREDIT, "Matrices Multiplication": (50 pts more)

Declare matrices **A**, **B**, and **C** of "N by N " integers elements and carry out the following operations:

i) C := A X B (store the multiplication of A and B in C)
ii) sum := summation of all of the C elements, column-order.

There are many ways to implement the answer, you MUST write the most efficient code. i.e., least number of smalltalk statements.
Moreover, no partial answers are accepted your code must run and get correct results to get the full extra 50 points, otherwise no points will be given.

Project Submission:
Your assignment must be submitted before class on the due date to the moodle website as a single **PDF** file. The assignment's PDF file MUST conform to the following naming convention "lastname_assignment3.pdf"

Example: John Ashcroft would use the file name: "ashcroft_assignment3.pdf"

Note: All sources must be both scientific and credible (not Wikipedia). All work must be your own and you must cite any contributions that you receive from classmates or external sources; failure to do so will result in a zero for the report. All rules in the Academic Honesty Policy strictly apply