Microprocessors Course

Assignment 2 (Array Sorting):

Write an assembly program (using 8086 MASM language) to sort an array in an **ascending** order and show the sorted array on console window. The program must achieve the following specs:

1- Each element in the array must not exceed one **word**.
2- When you run your code:
   a. Console window must be opened and the text, “Please enter the number of elements in the array to be sorted or press 0 to terminate:”, is printed.
   b. The user enters a number in the range of [1 – 25] followed by “Enter” press.
   c. Any number outside the range is unacceptable. If happened, print the text “Please enter suitable number in the range of [1 - 25]: ”.
   d. The number 0, if pressed, will cause the program to terminate.
   e. If the user entered a suitable number of elements (i.e. [1 - 25]), print the text “Please enter elements of the array to be sorted: ” followed by a new line.
   f. The user, then, enters the elements of the array. **Successive elements are separated by “Enter” press**.
   g. Entering the last element of the array, followed by “Enter”, will cause your algorithm to sort the array and print the sorted one.
   h. The text “The sorted array is:”, followed by a new line, is printed before elements of the sorted array. **Printed elements are separated by commas**.
   i. The program is finished. Go to step b to repeat the operation.
3- Write comments in your code so that it could be understood.

Notes:

1- Bonus grades are offered for good code design and expressive comments.
2- The task is submitted by a group but the evaluation is individual.
3- The deadline of the task is on Tuesday 27/12/2016 (Not to be delayed).
4- The discussion will be on Wednesday 28/12 (15 min for team during sessions).
5- Any question about the task is accepted before the deadline.

Good luck

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