Sorting and Searching

In this sessional you will implement **insertion sort** and **binary search** algorithm in assembly language programming. You will take *n* integers as inputs from a user, sort them and display the sorted array. Next you will take another integer as input from the user and search it in the sorted array using binary search algorithm and display its index in the sorted array if it exists (Assume that indices start from 1). In a nutshell, you have to implement the following algorithmic steps.

1. Take an integer *n* from the user.
2. Go to Step 10 if *n* <=0
3. Take *n* integers from the user.
4. Sort them using **insertion sort**.
5. Display the sorted array.
6. Take an integer *x* from the user.
7. Use binary search to find *x*'s index in the sorted array. Display the index if found, otherwise print 'NOT FOUND'.
8. For another search in the same array go to Step 6.
9. Go to Step 1.
10. End