Example of Bubble Sort Algorithm

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NOTIFICATION: These examples are provided for educational purposes. Using this code is under your own responsibility and risk. The code is given ‘as is’. I do not take responsibilities of how they are used.

bubblesort.c:

```
/**
 * Framework for the sorting programs.
 * Modified by: Alejandro G. Carlstein
 * Program Number: 1
 * Description: This code will implement an insertion sort algorithm
 *              which will follow the following steps:
 *              1. Copy item at current position
 *              2. Shift previous position item to current position
 *                 while item (in previous positions) is greater than
 *                 the item copied and there are previous items
                   to compare with the key item
 *              3. Insert copied item in the previous position in which
 *                 the previous item is found to be
 *                 smaller than the copied item
 *
 */
#include <stdio.h>
#define MAX_SIZE 1000000
int data[MAX_SIZE];
int n;

int main()
{
  int i;
  int j;
  int key_item;

  /* Read in the data */
  n = 0;
  while (scanf('%d', &data[n]) == 1)
    ++n;

  /* Sort the numbers low to high */
  for (i = 1; i < n; i++){

   key_item = data[i];

   for (j = i; (j > 0) && (data[j - 1] > key_item); j--){

    data[j] = data[j - 1];

  }//end for

  data[j] = key_item;

  }//end for

  /* Print out the data */
  for (i = 0; i < n; ++i)
    printf('%d\n', data[i]);
}
```

If you encounter any problems or errors, please let me know by providing an example of the code, input, output, and an explanation. Thanks.