```
# CECS 100 Fall 2018
# Project 5
# "Bubble Sort"
# Start date: 2018-11-27
# Turn-in date: 2018-12-04
# Name: Rodrigo Becerril Ferreyra
# ID Number: 017584071
# Description:
#     Manual bubble sort algorithm

def bubble(oldlist, end=-1):
      """Usage: newlist = bubble(oldlist)

      Returns a list sorted from least to greatest.
      """

      # Make end equal to the length of the list if function is called
outside of function
      if end==-1:
            end = len(oldlist)

      # Base case: the function is finished, and should be returned
      if end <= 1:
            return oldlist
      # Recursive case: calculate list and try again
      else:
            for i in range(end-1):
                  if oldlist[i] > oldlist[i+1]:
                        # swap oldlist[i] with oldlist[i+1]
                        oldlist[i] = oldlist[i] + oldlist[i+1]
                        oldlist[i+1] = oldlist[i] - oldlist[i+1]
                        oldlist[i] = oldlist[i] - oldlist[i+1]

            return bubble(oldlist, end-1) #recursive (calls itself)

def main():

      list1 = []

      print("Please input a series of integers.\n"
            "When you are finished, press enter again.\n")

      while True:
            try:
                  list1.append(int(input()))
            except (ValueError, EOFError) as e:
                  break

      print("Your sorted list is " + str(bubble(list1)))

main()
```