Assignment Objective: Build skills on C class creation and integration while implementing adding three quadratic sort algorithms to an integer version of P1**.**

Requirements:

* Create a class called **intList** for integers, having all the same functions as P1 had for stringList.
  + Private members changes:
    - Data:
      * Use an int \*a instead of the string \*a
  + Public members:
    - All functions that received “string text” or “string &text” shall be changed to receive “int key” or “int &key”.
    - printIt shall be modified to be “void printIt(int n) const;” It will print the first n entries, unless n > listSize, in which case it would print only listSize entries. If n is less than listSize, then also print the last item on the list.
* Add the following public member functions:
  + void bubbleSort()
  + void selectionSort()
  + void insertionSort()

Each implementing the associated sorting algorithm AS DISCUSSED IN CLASS.

* + bool isSorted() const, that returns true if the list is sorted in ascending order; otherwise, it returns false. If it fails, it also prints the index where the failure occurs; the index where a[index] > a[index+1].
* Deliverables:
* Demonstrate that the integer list and sorting work, by using the supplied p7m.cpp.
  + Run your program as follows:

g++ -O2 p7.cpp p7m.cpp -o p7

./p7 20 > p7output.txt

./p7 20000 >> p7output.txt

* + Compare your p7output.txt to the posted p7correctOutput.txt file
  + Into D2L, put a zip file containing:
    - A p7.h file for your **intList** ADT
    - A p7.cpp file for your **intList** ADT implementation
    - A p7output.txt text file with your output
    - DO NOT put a project into D2L
  + Turned into class, a hardcopy of your p7.h, p7.cpp, and p7output.txt files in that order.