problem set extra - 1

Data Structures
C++ for C Coders

한동대학교 김영섭교수
idebtor@gmail.com

Topics

- start from lab03.cpp → sort.cpp
- use new, delete, nothrow, and assert
- use a command line argument and GetInt() in nowic.h
  - using libnowic.a - a static library for getting user's input
  - -L../lib or –L./lib or –L../../lib
  - -lnowic, or lnowic_mac
- use a default parameter;
  - ex: void bubbleSort(int *list, int N, int comp(int, int) = ascending);
- build a library libsort.a, sort.h
- use a function pointer to sort in either ascending or descending order
- use an array of function pointers for performance analysis
  - add timing as in pset02sort.
- Due: March 18 (Mon) 11:55
- Files to submit: sort.cpp, sort.h, libsort.a, sort functions(4) in zipped

How to

step 1: start from lab03.cpp → sort.cpp
get a copy of sort function files. set #if 0 for main() if any.
step 2: read input from user from a command line and interactively .
new, delete, nothrow, and assert
step 3: use an array of function pointer and run four sort functions in a for-loop
output execution time

[Note] don't go the next step unless you code above completely.

step 4: code ascending and descending comparison functions.
set the ascending function as a default parameter in four sort functions.
step 5: create sort.h and remove function proto-types in sort.cpp
use sort.h in sort.cpp
build a library libsort.a using all 4 sort functions
build an executable using libsort.a and sort.h