

Lab 3

Start with the code in `~l1iang/cs162/labs/lab3`. You will want to copy it into a directory of your own.

Implement two functions specified in `list.h`. You need to fill in the implementation in `list.cpp`:

- `bool insert(int val, int intList[], int& size)`
the above function will insert “val” into the correct position of a sorted “intList” and increment size. When doing the insertion, the list should maintain sorted. For example, when the list is [3], after inserting 1, it should become [1, 3]. It returns false if “intList” has val already and it won’t insert the duplicate. You should not use a sorting algorithm for this.
- `bool remove(int val, int intList[], int& size)`
the above function will remove “val” from “intList” and decrement size. For example, when the list is [1, 3, 5], after removing 3, the list should be [1, 5]. It returns false if “intList” doesn’t have “val”

In `app.cpp`, the function `print` is used to print the integers in the list. You can use this information to check the accuracy of your code.

You can build the app using the `make` utility, which is supported by the file named `makefile` provided in the directory.

For lab3 submission, copy the function `bool insert(...)` implementation into `lab3.txt`, then append the output of the app to the file using the command line below. ftp `lab3.txt` to your local machine and upload it to the Desire2Learn dropbox.

```
./app >> lab3.txt
```