

CS 162

Lab 3

Start with the code in `~cgoble/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)` This function will insert “val” into “intList” and increment size. It returns false if “intList” has val already and it won’t insert the duplicate.
- `bool remove(int val, int intList[], int& size)` This function will remove “val” from “intList” and decrement size. It returns false if “intList” doesn’t have “val”

Note: It is a requirement of this lab that you maintain the list of integers (which is an array in this case) in strictly ascending order. Consequently, insertions must be made in the correct position in the list, and deletions will cause elements whose value exceeds that of the element being deleted to move one place lower in the array so as to absorb the space left by the deletion.

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.

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

ftp `lab3.txt` to your local machine and upload it to the Desire2Learn dropbox.