

Lab 6

Starting with the code in `~l1iang/cs261/labs/lab6` You will want to copy it into a directory of your own.

File `supplied.o` contains code that can build, display, and destroy a *binary search tree*.

For this lab, you will need to write the following two functions in `table.cpp`, and add function prototypes for them to `table.h`.

- `void duplicate(node * root, node *& newRoot)`
recursively create a copy of the source tree with `root`. `newRoot` is the root of the destination tree.
- `void remove(node *& root, int target)`
recursively remove the target from the tree

After implementing the two functions, you need to invoke the functions in `main.cpp` to test. Please label your output so that the result is clear. E.g. “duplicate copy of the tree: “ or “After removing 2: “

Create a makefile for the project and build it. Make sure your clean target doesn't remove `supplied.o`

Run your program in `valgrind` and make sure there is no memory leaks assuming the executable file is named **app**

```
valgrind --tool=memcheck --leak-check=full ./app
```

For lab6 submission, copy the above member function implementation into `lab6.txt`, then append the output of the app to the file. ftp `lab6.txt` to your local machine and upload it to the Desire2Learn dropbox.

```
./app >> lab6.txt
```