# COEN 11 Lab 6

# Steps

1. Open up Terminal and connect to the Linux computers:
   ***ssh -l username linux.dc.engr.scu.edu***
2. Go to COEN 11 directory: ***cd coen11***
3. Copy the contents of lab5 into a new file: ***cp lab5.c lab6.c***
4. Edit lab6: ***vi lab6.c***
5. Compile the file: ***gcc -o lab6 lab6.c***
6. Test your file: ***./lab6***

# Requirements

- A Struct (eg: ENTRY) to store the name, group size, and the pointer to the next node (ENTRY)., as in lab 5.
- **A struct LIST** with 2 members - head & tail ( both of type ENTRY)
- **An array of struct LIST ( global variable)**
  - with size **4** ( one list per range of group size)
  - Initialize head & tail as NULL
  - `LIST lists[4] = {{NULL, NULL}, {NULL, NULL}, {NULL, NULL}, {NULL, NULL}};`
- 5 options ( same as lab 5)

# Requirements

- **New function for option “0”** - Go through all 4 lists and free all nodes before quitting
- Insert()
  - Go through all 4 lists to find any duplicates. ( No duplicates allowed )
  - Identify the correct list index in array. (Use if/else or switch ) and insert at the end.
- Delete()
  - Identify the lists with sizes lesser than the required opening (Use if/else or switch ) and traverse **only** those lists.
  - Remember to free the nodes.
- Search_size()
  - Identify lists with size lesser than the required size ( Use if/else or switch ) and traverse **only** those lists
- show()
  - Print list for each size range. (*Name* & *Size*) ***from oldest to newest order***

# Requirements

- Make sure to include all the cases for insert() and delete() , as in lab 5.
- No Pre-lab.
- Demo before your next lab
- submit source code to Camino

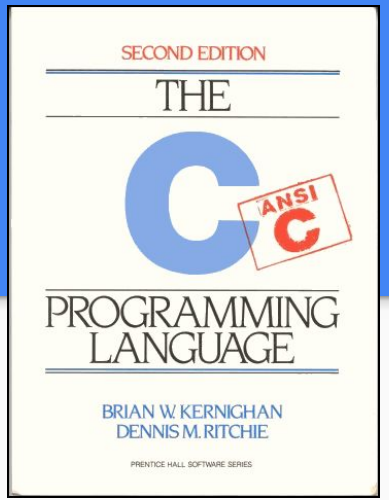
# When Submitting the Code...

Add comment at the top of the page with…

- Your name
- Course title
- Lab number
- Lab time and date

```
/* Emma Allegrucci
 * COEN 10
 * Lab 5
 * Monday 2:15pm
 */
```

# Helpful Resources




*** “The C Programming Language, 2nd Edition” ***

C: https://devdocs.io/c/

C: https://www.tutorialspoint.com/c_standard_library/index.htm

Terminal commands:
https://cheatography.com/davechild/cheat-sheets/linux-command-line/

Vim commands: https://vim.rtorr.com/