CIS 225

# COVER PAGE

Advanced C Programming

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LAB 3

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# NARATIVE

This lab was, more or less, a modified version of lab 2, the difference in size amounts to around 200 lines of code. Hardly any of the “Contact.h” and “Node.h” files were changed. Almost all of the modification took place in modifying “LinkedList.h” to create the “BinaryTree.h” file. These modifications included different adding and removing functions, and self-balancing functionality. Additionally, I was, during the course of this lab, informed that my sorting algorithm was off, I had originally written the program to sort by area code followed by last name, and as it turned out, the desired formula was last name followed by first name followed by phone number. Unfortunately, I had stored my sorting “key” in the structure which defined a contact, and this means that a changed key format would invalidate any saved data. I fixed this design flaw by placing the “key” in the node structure, and fixing the algorithm. So now, if I am required to further modify my algorithm, I will not be required to generate new data. I am pretty pleased with how this lab has turned out.

# PROGRAM OUTPUT

























