

Kerry Ojakian's CSI 33 Class
Class Assignment #4

When indicating how the links are modified take some care to indicate exactly what is happening, and in exactly what order.

1. Make a diagram of a Linked List with the elements 3, 4, 1.
2. Make a diagram to show ALL the steps for inserting a 7 between the 3 and the 4.
3. Make a diagram to show ALL the steps for inserting a 9 at the beginning of the list.
4. You now have the list: 9, 3, 7, 4, 1. Write out the process for searching for 7. Write out the process for searching for 12.

For the next problems, a “Tailed Linked List” means the usual linked list with an extra pointer that should always be maintained pointing at the last element in the linked list.

5. Make a diagram of a Tailed Linked List with the elements 3, 4, 1.

6. Make a diagram to show ALL the steps for inserting a 2 between the 4 and the 1.

7. Make a diagram to show ALL the steps for inserting a 7 at the end of the list, after the 1.

8. Use a diagram to show the steps for deleting the last element in the list.

9. Make a diagram of a Tailed Linked List that contains just the element 99.

10. Make a diagram of an empty Tailed Linked List.