In this project I want you to create your own linked list class. To make this easier, I would suggest just putting it all in one file. So just one cpp file, which above your main would have the specification for your class, then below main would have the class functions.

Start with the basic code for the singly linked list given in the text. Then write a driver program that gives me a menu to work with the linked list and then display it. So give me menu options for all the default functions (append, insert, delete, etc).

Then I want you to implement some additional functionality:

void printMember(int pos) function, that if called with an integer, prints a particular element (starting at the first element, 0)

int search(int key) that returns the location of a particular value in the list (with first element being 0)

void insertAtPosition(int pos, int value) that inserts an element at a particular position. Note that if this is greater than the amount of elements in the list, it should just insert it at the end

void deleteAtPosition(int pos) that deletes a particular member at a location

Do not do it in multiple files, just one .cpp file. Your driver program should allow me to test all of your functions that you have other than the destructor, with a display of the list at each step. So you should start with an empty list, let me append to it, delete members and so on.