

Practicum 12 - (1 point bonus must be demoed by Friday th 5th)

Demo by the end of your Friday class to earn the bonus point.

Background:

The aim of this exercise is to provide you a basic understanding of linkedlists and a practical application of classes.

Task:

A linked list has been provided to you in the form of `linkedlist.cpp` and `linkedlist.h`. The `linkedlist` stores in each node a string (which is C++ type for the representation of strings – unlike conventional C strings).

The class is complete, except for the methods `removefromhead` and `listdatacmp`.

The `removefromhead` function, removes the node from the head of the list and returns its contents i.e. in this case the data in the node is a string.

The `listdatacmp` function on the other hand is used by the insert method to help order insertions of nodes in the linked list. The `listdatacmp` function returns either a zero or +/- integer representing the order (it is identical to the behavior of `strcmp`). This return value is used to order the insertions.

Your job is to make suitable modifications so `removefromhead` and `listdatacmp` actually work.

Once complete, write a simple driver program, which makes an instance of your linked list. The driver should read words from standard input till EOF and store them as string objects. For each word that is read in, you are to insert it into the linked list using the insert method.

Once EOF has been reached, you are to print the contents of the `linkedlist` in order using the public methods in the class. You are not required to add additional methods.

MANY EXAMPLES OF THE STRING CLASS HAVE BEEN PROVIDED TO YOU FOR INFORMATIONAL PURPOSES.

You should demo the work in the following files:

```
linkedlist.cpp
linkedlist.h
main.cpp
```