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**Reflection and Pseudocode module 3 Linked Lists**

In this assignment, I am working with information from a municipal government data feed containing bids submitted for auction of property. I was provided an incomplete LinkdedList.cpp program in which I need to make changes to Linked List, append, prepend, printList, Remove, and Bid Search methods. To tackle this project, I reviewed the ZYBook lessons on chapter 4 which cover linked list, append, prepend, print list, remove linked list examples. The append method purpose is to add new bid to the end of the list, prepend add a new bid to the start of the list, printList will print all the bids that currently in the list, search will search for a specified bid, remove will remove the specified bid. I enjoy following the instructor provided in the video lecture and read the comment instruction provided from the LinkedList.ccp so I did not run into any issue beside compile my code and typing error that I found after review my codes a few times prior to submission. I was able to use g++ to compile the code with no problem but I still run into problem with compile using the CMake program despite download Ubuntu and adding Linux subsystem for my current window, added make command for compile but still cannot make it work. Perhaps I will find a way to fix it in future if I need to use CMake to compile my C++ project.

**Pseudocode**

**Create Linkedlist, Append, Prepend, printList, Remove, Search**

Declare variable string bidID, title, fund, amount

Constructor

Create class linkedlist

Set head and tail to null

Destructor

Set current node to start at the head

Create empty node temp

Loop over each node, detach from the list then delete

Save current node

Make current node the next node

Delete the temp node

Append method

Create new node

If head node is null (nothing)

New node become head and tail

Else

Make current tail node point to the new node and tail become the new node

Increase size count by one to end the loop

Prepend method

Create new node

If head node is not null

New node points to current head as its next node, head become the new node

Increase size count by one to end the loop

PrintList method

Start current node point at the head

While loop over each node looking for a match

Print out bidID, title, amount and fund

Set current equal to next to end loop when done

Remove method

Start current node point at the head

If current and current point to bidID equal to the bidID

make head point to the next node in the list

delete current

decrease size count

return

while loop over each node looking for a match

if the next node bidID is equal to the current bidID

hold onto the next node temporarily

make current node point beyond the next node

decrease size count

return

set current node is equal to next node to end loop

return

Search method

start at the head of the list

while current node

if the bid id equal to current node point it to the bid id

make head point to the next node in the list

current node is equal to next node to end the loop

}

return an empty bid