Bergen Community College

**CIS-277**

DLL implementation

Submit the source code (cpp program), output with ALL Scenarios

if any of your functions does not work, specify which one(s).

1.    Dynamic Linked List (DLL) Implementation

Using DLL write a C++ program to do the following:

1.    Create a DLL

2.    Add a node (node contents of your choice):

a)    When the List is empty

b)    In the beginning of the List

c)    In the end of the List

d)    Somewhere between the beginning and the end of the List.

e) When the LL is not created

f) when a duplicate record is found

The ADD algorithm is to determine where the new node is to be placed in the List.

**The user is not asked where the new node should be inserted.**

3.    Delete anode:

a)    When the List is empty

b)    From the beginning of the List

c)    From the end of the List

d)    From somewhere between the beginning and the end of the List.

e) When the LL is not created

f) show what happens when an attempt is made to delete a node which is not in the list

**The DELTE algorithm is to determine where the targeted node is placed in the List.**

**The user is not asked about the location of the targeted node.**

 4.    Search for a node and display its contents.

The Search is done based on a key field from the node (i.e a name, or an ID)

The Search algorithm is to locate the targeted node and to display it.

**The user is not asked about the location of the targeted node.**

**Show what happens when and where the target is found and when it is not found**

 5.    Modify a node.

The user is to enter a key field from the node (i.e a name, or an ID)

The Search algorithm is to search for the targeted node from the beginning of the List.

 Address what happens if an attempt is made to search for a record before creating the LL

 Display the node before and after modification.

6.    Display the Entire Linked List.

The display function is to display the list from the front to end and

  Address what happens if an attempt is made to search for a record before creating the LL

7. purge the LL

**See attached examples of the run for the Add and delete as well as what the user menu should look like**