# PreLab Assignment – Doubly-linked List Lab

A doubly linked chain has nodes that each can reference a previous node and a next node. It can have both a head reference and a tail reference.

Question 1: List the steps necessary to add a node to the doubly linked chain when the new node is:

1. First in the chain
2. Last in the chain
3. Between existing nodes in the chain

New node next point to head of list

Head node previous points to new node

New node previous points to null

Make new node head

b. Make pointer next point to new node

new node previous pointer points to previous node

new node next points to null

c Store address of node after insertion point

previous pointer of new node points to node before

new node next points to node after using stored value

node after previous points to new node

Question 2: List the steps necessary to remove a node from a doubly linked chain when the node is:

1. First in the chain
2. Store value of current head

Move head to next node

Delete old head

Make new head previous point to null

1. Last in the chain

Store pointer to next node

Store pointer to previous node

Delete node

Make previous node next point to next node

Make next node previous point to node before

1. Between existing nodes in the chain

Store previous pointer value

Make next pointer = null

Delete node