Lab Report 1 Title: Linked List Implementation

Objective: Define LinkedList Class using Node, Implement different methods of the LinkedList class

Functions To Use:

- void add(int data, int index);
- int getSize();
- void print();
- void removeHead();
- void remove(int index);
- void removeTail();
- void addToTail(int data);
- void addToHead(int data)

Main.cpp Code

```
LinkedList list;
// add to head
list.addToHead(4);
list.addToHead(3);
list.addToHead(7);
list.addToHead(2);

// printing the list
std::cout << "List:" << std::endl;
list.print();

// printing the size of the list
std::cout << "List Size is " << list.getSize() << std::endl;

// adding to the list at a particular index
list.add(8, 2);
std::cout << "List after adding 8 at index 2:" << std::endl;
list.print();

// add to tail
std::cout << "Adding 9 to tail" << std::endl;
list.addToTail(9);
list.print();

// removing form the tail
std::cout << "removing from index 2:" << std::endl;
list.remove(2);
list.print();
```

Output

```
List after adding 8 at index 2:
2 7 8 3 4
Adding 9 to tail
2 7 8 3 4 9
removing from index 2:
2 7 3 4 9
```