

Lab Goal : This lab was designed to teach you more about a linked list and passing a linked list as a parameter.

Lab Description : Use `ListNode` to write some basic `LinkedList` methods.

PART 1 – Open the `ListFunHouse.java` file and complete the methods in this class.

PART 2 – Use `ListFunHouseRunner.java` to test your `ListFunHouse` class.

ListNode – stores a value and a reference to the next node

```
public class ListNode implements Linkable
{
    private Comparable listNodeValue;
    private ListNode nextListNode;

    public ListNode(){
        listNodeValue = null;
        nextListNode = null;
    }

    public ListNode(Comparable value, ListNode next){
        listNodeValue=value;
        nextListNode=next;
    }

    public Comparable getValue(){
        return listNodeValue;
    }

    public ListNode getNext(){
        return nextListNode;
    }

    public void setValue(Comparable value){
        listNodeValue = value;
    }

    public void setNext(Linkable next){
        nextListNode = (ListNode)next;
    }
}
```

Files Needed ::

ListNode.java
Linkable.java
ListFunHouse.java
ListFunHouseRunner.java

Sample Data :

See the main method / runner code

Sample Output :

```
go on at 34 2.1 -a-2-1 up over

num nodes = 8

List values after calling nodeCount

go on at 34 2.1 -a-2-1 up over

List values after calling doubleFirst

go go on at 34 2.1 -a-2-1 up over

List values after calling doubleLast

go go on at 34 2.1 -a-2-1 up over over

List values after calling removeXthNode(2)

go on 34 -a-2-1 over
```

List values after calling `setXthNode(2,one)`

go one 34 one over