

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
```