Lab 0

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1 Code

1.1 ListItem.java

A public class (listItem) hold two parameters, an integer value and an instance of a listItem. This is done to allow each listItem to hold an individual value while also being connected to another listItem instance so that A chain of "nodes" can be created. This chain of "nodes" can then be used to something like a a binary search tree for example.

1.2 Main.java

In main I created a small example of linked listItems. The final listItem is linked to "null" meaning that it is the "end node". I also print out the attached values of the listItems using the "getValue" command defined in listItem.java.

2 Appendix

2.1 ListItem.java

```java
public class listItem {
    int value;
    listItem listItem;

    //item holds a value and is linked to another list item
    public listItem(int value, listItem listItem){
        this.value = value;
        this.listItem = listItem;
        getValue();
    }

    //gets value of node
    public int getValue(){
        return value;
    }
}
```

2.2 Main.java

```java
public class Main {
    public static void main(String[] args) {
        //creates the linked listItems
        //node4 does not link to another listItem
        listItem node4 = new listItem(1, null);
        listItem node3 = new listItem(2, node4);
        listItem node2 = new listItem(3, node3);
        listItem node1 = new listItem(4, node2);

        //gets values of nodes and prints it
        System.out.println(node1.getValue());
        System.out.println(node2.getValue());
        System.out.println(node3.getValue());
        System.out.println(node4.getValue());
    }
}
```