

CS367 Announcements

Tuesday, July 2, 2013

- H2 solutions posted
- P1 due Wed 11:59pm
- no class July 4th

Last Time

- Primitive vs Reference (cont.)
- Linked Lists

Today

- Access Control
- Linked Lists (cont.)

Java Visibility Modifiers

public	<code>public class ArrayList</code>
private	<code>private Object[] items</code>
protected	<code>protected String name</code>
package	<code>int studentID</code>

Listnode Class

```
class Listnode<E> {
    private E data;
    private Listnode<E> next;

    public Listnode(E d) {
        this(d, null);
    }

    public Listnode(E d, Listnode<E> n) {
        data = d;
        next = n;
    }

    public E getData() { return data; }

    public Listnode<E> getNext() { return next; }

    public void setData(E ob) { data = ob; }

    public void setNext(Listnode<E> n) { next = n; }
}
```

Practice: Removing a Node

Assume `head` points to the first node in a chain of nodes containing Integers.

Write a code fragment to remove the third item from the chain of nodes. You may assume the chain has at least three items.

Practice: Challenge Question

Assume `head` **points to the first node in a chain of nodes containing** `Integers`.

Write a code fragment that reverses the order of the nodes in the chain.

Implementing List ADT using Chains of Linked Nodes - the LinkedList

```
public class LinkedList<E> implements ListADT<E> {
    private Listnode<E> head;
    private Listnode<E> tail; //optional
    private int numItems;

    public LinkedList() {

    }

    public boolean isEmpty() {

    }
}
```