

EECE.3220: Data Structures

Spring 2017

Lecture 18: Key Questions

March 6, 2017

1. Write the copy constructor and assignment operator for the dynamic array-based List class:

```
List::List(const List & origList)
```

```
{
```

```
}
```

```
List & List::operator=(const List &origList) {
```

```
}
```

2. What are the benefits of using linked lists vs. arrays for list storage?

3. Describe the general design and implementation of a linked list.

4. Describe the basic design of the partial linked list class shown below. Why is the `Node` class declared inside the `LList` class?

```
class LList {
public:
    // List of public members
private:
    class Node {
    public:
        int val;           // Value in each node
        Node *next;       // Pointer to next node
    };

    Node *first;         // Pointer to first node
};
```