EECE.3220: Data Structures

Spring 2017

Lecture 17: Key Questions
March 1, 2017

1. **Example:** Write functions to overload the following operators for the List class, assuming:
   - List data members are `int mySize` and `ElementType myArray[CAPACITY]`
   - `CAPACITY` is a pre-defined constant for the maximum array size.

a. `List operator +(const List &rhs);`

b. `friend istream & operator>>(ostream &in, List & aList);`

2. Explain the `new` and `delete` operators.

3. If we implement a list using dynamic arrays, what parts of the class stay the same? What's different? What needs to be added?

4. Explain how the constructor needs to change in a dynamically allocated list.

5. Explain the purpose and operation of a destructor.

6. Explain the purpose and operation of copy constructors and the = operator. Why are the default versions of these functions not suitable for objects with dynamically allocated members?