CMSC21 Lab Exercise 16 – ArrayList and String

1. (Refer to the starter file list-arr.c)

a) Create the function removeAt, which, given an index, deletes the value in the index position by shifting to the left all the elements of the list.

b) Create the function addAt, which inserts newValue at the specified index, shifting succeeding elements to the right. (Note: you'll have to expand the array when the list has reached the capacity of the array)

2. (Refer to the starter file string.c)

You're allowed to use the provided helper functions strLen and strCopy, but not any of the string.h functions. (Warning: there may be bugs in strLen and strCopy!)

a) Create the function createString (similar to createArrayList), which initializes the String to the given newValue.

b) Create the function destroyString, which frees the manually allocated String value.

c) Create the function append, which adds newValue to the end of the current String value. (Note: you'll have to expand value on every append.) Return the new length if the operation is successful. Otherwise, return -1.