CptS 122 Lab #1

This lab is comprised of two tasks. Both tasks must be completed in order to receive credit for this lab.

Task #1

Please complete the online survey at http://survey.osble.org/index.php?sid=97282.   Note that this survey may look very familiar to many 121 students :)

Task #2

This task picks up from last week's lectures on developing dynamically expanding arrays (i.e. vectors). In lecture, we developed a vector of integers. In this lab, you must develop similar vectors for the other C data types: doubles and chars. In total, you must add to Vectors.h/c (provided with this file) the following structs and functions:

- A "DoubleVector_t" struct
- A "CharVector_t" struct
- DoubleVector_t doubleVector_init(int initial_size)
    - Initializes a new DoubleVector_t for the programmer to use
- void doubleVector_resize(DoubleVector_t *some_vector, int new_size)
    - Resizes a DoubleVector_t to the specified size
- void doubleVector_insert(DoubleVector_t *some_vector, int location, double value)
    - Replaces the item presently at "location" with "value"
- void doubleVector_add(DoubleVector_t *some_vector, int location, double value)
    - Shifts all values starting at "location" to the end of the vector right by one, then inserts "value" at "location"
- CharVector_t charVector_init(int initial_size)
    - Initializes a new CharVector_t for the programmer to use
- void charVector_resize(CharVector _t *some_vector, int new_size)
    - Resizes a CharVector _t to the specified size
- void charVector_insert(CharVector _t *some_vector, int location, char value)
    - Replaces the item presently at "location" with "value"
- void charVector_add(CharVector _t *some_vector, int location, char value)
    - Shifts all values starting at "location" to the end of the vector right by one, then inserts "value" at "location"

To receive credit for this task, you must implement a simple "driver" program that uses and tests each function.