**Lab 4 – Pointers**

One of the useful things pointers allow us to do is to dynamically allocate memory only when we need it. In this lab, you will use pointers to dynamically allocate an array, and then manipulate that array through pointer arithmetic.

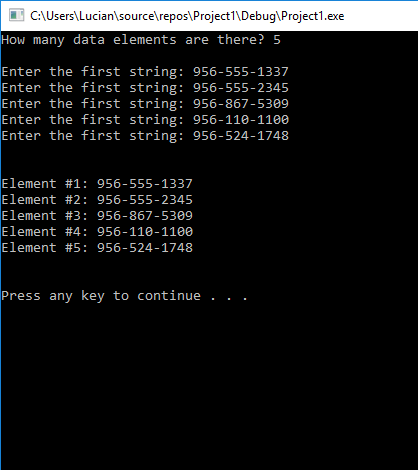
Start by declaring a pointer to a string in the main function, and initialize it to NULL. Then, ask the user how many strings they would like to enter, and use your pointer to dynamically allocate an array of that user specified size.

Next, pass that array, along with the size, into a function, fillArray(…). You should use a pointer parameter to a string to accept the array. Inside the function, use a loop to iterate through the array, prompting the user to enter a value at each element in the array. You should use pointer arithmetic and the pointer/offset notation to accomplish this (not the bracketed pointer/index, or array, notation).

Back in the main, pass the newly-filled array and the size into another function, displayArray(…), which will similarly loop through the array and display it’s contents.

There are no classes or anything to worry about in this one – just pointers. When you are done, submit your completed .cpp file through Blackboard.

**Sample Screenshot**

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