

## Lab 4

(REM::: LAB EXAM NEXT WEEK !!!!!)

1. Write a program that first sets up an array of 1000 pointers to character arrays. Then within a while loop, take in a word via user input, set up the character array in dynamic memory and point to it using the next pointer in the array you originally set up. Use the **strcpy** function to copy the user input word to its new home in dynamic memory. Keep on looping in this fashion until the user is ready to continue.

Finally output the number of words the user has entered, and print them out to screen in reverse order using pointer dereferencing.

2. Set up a pokemon struct – field variables should be of the type *name*, *colour*, *size*, *specialAttack1*, and *specialAttack2*.

Utilising Dynamic Memory, create a program that asks the user how many pokemon they are going to type in, sets up the appropriate space in memory (ie. an array on the heap) and then uses the **cin** statement to input pokemon information from the user. (eg. **Name:** Pikachu, **Colour:** Yellow, **Size:** Tiny, **Attack1:** Gibbering Japanese,etc...)

As they are being input, using the pointers you have set up, store these structs in dynamic memory. Finally display them all on screen using a for loop and pointer arithmetic.

3. Write a program that reads integers (one per line) from a text file, sums them up and outputs them to screen. This is about as simple as File I/O gets. See **fstream** library and the **ifstream** command ... **fin** and **fout** (see google for help....)
4. Write a program that translates normal text into *kid code*. It should read in from one file while outputting the results to another. Kid Code translates words in the following way: as soon as you come across the first vowel in a word insert the word *alib* directly before it.

For example:

**You speak good chinese => Yalibou spalibeak galibood chalibinese**