**Lab0 - Due January 18**

**Create a "Dynamic Array" container with this user interface:**

 // Gets the current number of entries in container  
 int getCurrentSize()

 // Returns the current capacity of the container  
 int capacity()

 // Checks whether the container is empty.  
 boolean isEmpty()

 // Adds a new entry to the container  
 boolean insert(newEntry)

 // Removes an entry from the container and moves all entries above anEntry down one  
 boolean remove(anEntry)

 // Get index value  
 int getValue(index)

 // Removes all entries from the container  
 void clear()

 // Resize a container by doubling current capacity  
 int resize()

**\*   Implement dynamic resizing using this algorithm:**

1.  Starting with a dynamic size of 10, if the number of elements exceed this number:

    a. Reallocate the container size to double the current size

    b. Move the contents of the current container to the newly sized container

    c. Delete the previously sized container.

**Resize C++**        Data\* ptemp = new Data[capacity\*2 ];  
        for (int i=0; i<size; i++){  
              ptemp[i] = \_mdata[i];

}  
        delete [] \_mdata;  
        \_mdata = ptemp;  
        capacity \*= 2;  
     
**Resize Java**         data = Arrays.copyOf(data, capacity\*2);  
         capacity = capacity \* 2;

2.  Repeat from step 1a. as necessary.

3.  Note the data file called "Words.CSV" is in the documents folder for this week.

4.  Read the data file and store the words in the dynamic array.