For this project, there are many ways to make sure that the data is sorted in the linked list. It is possible to store the data in the linked list exactly as it is read in and then sort the list using a merge sort, but there would still be a problem of duplicates. Although a merge sort would take nlogn time, finding and removing duplicates would take n^2 time because each element in the list would have to be compared with every other element in the list. The same would be true for trying to sort the data by transferring it to a resizeable array and sort it. Instead, for this project I simply sort the data in the linked list as it is read in. It takes n^2 time, but it requires no extra space. Then I copy the data to a resizeable array so that other sorting or searching can take place. If any extra data is read in, then the old resizeable array is deleted and a new one is created.