Chapter 10 - Some Fundamental Algorithms(pgs.384 - 423)

Sorting:

* Simple Exchange Sort
  + Compares two items to each other and if they are out of order, it switches them
  + Very slow but easy to program
    - Two For-Next statements, an If-Then statement, and some assignment statements
* Bubble Sort
  + More complicated version of the exchange sort
  + Can stop itself when the list is sorted
  + On average faster than the exchange sort but still can take just as long if the entire list is unsorted
* Comb Sort
  + Much faster than the other two sorts
  + Doesn’t compare adjacent elements, compares elements that are separated by a gap
  + Keeps reducing the gap through each sweep until it is eventually 1

**Refer to the textbook to learn how to code these sorts**

Searching:

* Lets you find the information you want within a large expanse of data(arrays and files)
* Linear Search
  + Compares the search item with every entry in the array
    - When a match is found the search is over
    - When an array entry has been examined unsuccessfully the search is over
* Binary Search
  + Used when searching long ordered lists
  + Uses repeated subdivision

**Refer to the textobook to learn how to code these searches**