## Week 3 Research

## 5 Methods from String JavaDoc

https://docs.oracle.com/javase/7/docs/api/java/lang/String.html

**charAt(int index)** – returns a char at the given index of the string, with 0 being the first position. Can be useful when you want to break down a string into individual parts.

**compareToIgnoreCase(String str)** – returns an int, if the two strings are equal lexicographically then it'll return 0. Is useful when you want to see if two strings are the same.

**length()** - returns the length of a string. One use case could be using it in conjunction with charAt(int index) and a for loop that loops str.length() times. This can break down the string into every individual character.

**toLowerCase()** - returns a string that has been converted all to lowercase. Can be very useful in standardizing user input.

**isEmpty()** - return a boolean for whether a not there are any characters in a string. Can be useful in preventing exceptions from working with nonexistent data.

## Favorite thing I learned

My favorite thing that I learned this week was arrays. This was my favorite thing because I now make more flexible programs. An example of this could be prompting the user for say, int number of students who are taking a test. Then you could make an array of n size, and then prompt the user n times for each students test score, and save all of those scores into that one array. One downside to this approach is that you have to know what size of array you need before hand. It would be nice if we could have an array that could dynamically grow and shrink. Maybe once we learn about objects we could learn more data structures such as linked lists (stacks, queues, ect.).