Week 3 Research

There are many methods for String that is listed in JavaDocs. I will talk about a couple of them and one of those methods and the one that I've used the most this week is .length(). This is used to count the number of characters in a word. User input can change most of the time and the use of .length tells us what the new length of the string is. UserInput.length() and the user inputs "Hello!", it would count all the characters in there even the "!". Most of the methods is pretty much this format, they just do something different. The next two methods are toUpperCase and toLowerCase. These just change all chars to upper case and the other, lower case. The next one is a boolean type, which is .equals(object). It will compare your string with the an object. The last one I'm going to mention is concat(String str). This will combine with a string you specified and put it at the end of a string.

Another type of methods are of the Array types that are listed in JavaDocs. One of them is sort(int[] a). This will sort your specified array in order from lowest to highest. It would look something like this: newArray.sort(nameOfArray);. There is also a boolean type which is the same as the string which is .equals. It is used to compare arrays and it would be in the format of something like this: newArray.equals(array1, array2); The next one is toString, which lets you choose which array you want to return to: newArray.toString(nameOfArray);. The next type is used whennver you want to copy of an array and you can choose the range of what you want to copy iterated by .copyOfRange: newArray.copyOfRange(nameOfArray, 0, 8);. The last one I'm going to mention lets you search, lets say a really long array, for a specified number. You would use .binarySearch and it would look something like this: newArray.binarySearch(nameOfArray, 178);.

This week we learned about methods and arrays. They were pretty difficult, but I found myself understanding it a lot better than loops. My favorite thing I've learned this week is definitely arrays and the ways to use them in your code. Despite that, I definitely had a harder time on arrays than I did with methods when working on the OpenClass assignment.

Citing

"Class String." *String (Java Platform SE 7)*, 24 June 2020,
        https://docs.oracle.com/javase/7/docs/api/java/lang/String.html.

"Class Arrays." *Arrays (Java Platform SE 7)*, 24 June 2020,
        https://docs.oracle.com/javase/7/docs/api/java/util/Arrays.html.