

AP CSA
Unit 6 ArrayLists
Practice Methods
20 Points Total

Complete the following static methods within the ArrayListMethods class.

1. `public static int totalNumVowels(ArrayList<String> strList)` **(2pts)**

This method returns an `int` value which is the sum total of all the vowels in `strList`.

<code>strList</code>	Returned by <code>totalNumVowels(strList)</code>
[Hello, World]	3
[AP, Computer, Science, A]	8
[TRY, 2, fly]	0

2. `public static String getRandomString(ArrayList<String> strList)` **(2pts)**

This method returns a random `String` from within the `strList` passed by parameter.

<code>strList</code>	Returned by <code>getRandomString(strList)</code>
[AP, Computer, Science, A]	A
[AP, Computer, Science, A]	Computer
[AP, Computer, Science, A]	AP

3. `public static void removeWordsOfLength(int len, ArrayList<String> strList)` **(3pts)**

This method removes any words of length `len` from `strList`

<code>strList</code>	<code>len</code>	<code>strList</code> after method call <code>removeWordsOfLength(len, strList)</code>
[Hello, World]	5	[]
[AP, Computer, Science, A]	2	[Computer, Science, A]
[AP, Computer, Science, A]	5	[AP, Computer, Science, A]
[TRY, 2, fly]	3	[2]

4. `public static void addWordToSortedList(String word, ArrayList<String> strList)` **(4pts)**

This method inserts the `String` `word` into the correct location in a sorted list.

<code>strList</code>	<code>word</code>	<code>strList</code> after method call <code>addWordToSortedList(word, strList)</code>
[]	computer	[computer]
[apples, bears]	computer	[apple, bears, computer]
[ap, computer, science]	computer	[ap, computer, computer, science]
[one, two]	three	[one, three, two]

5. `public static void reverseList(ArrayList<String> strList)` **(4pts)**
This method modifies `ArrayList strList` passed by parameter to be the reverse of itself.

<code>strList</code>	<code>strList</code> after the call to <code>reverseList(strList)</code>
[one, two, three]	[three, two, one]
[Hello, World]	[World, Hello]
[This is fun]	[This is fun]

6. `public static List combineLists(List list1, List list2)` **(5pts)**
This method merges `list1` and `list2` into a single `ArrayList` in alternating order. If `list1` and `list2` do not have the same amount of values, the extra values are just appended to the end of the `ArrayList` returned by the method. While writing this method do not modify or remove items from `list1` or `list2`.

<code>list1</code>	<code>list2</code>	Returned by <code>combineLists(list1, list2)</code>
[1,2,3,4]	[6,7,8,9]	[1,6,2,7,3,8,4,9]
[1,1,1,1]	[2,2]	[1,2,1,2,1,1]
[1,1]	[2,2,2,2]	[1,2,1,2,2,2]

Save your completed `ArrayListMethods.java` file in a folder with your name on it. Compress and submit your folder via Google classroom.