

ArrayList "Mini" Starter Lab

Let's do this one in codeHS since this is a "mini" lab! Name the program "ArrayListMiniLab". Do the problems below in the main method. You must have `'import java.util.*;'` at the top of your program.

1. Declare and instantiate an ArrayList of Integer objects called `numbers`.
2. Add these values to the empty ArrayList in problem 1 in this order: 1 4 2 6 8 9.
`System.out.println(numbers);` should produce: [1, 4, 2, 6, 8, 9]
3. Clear the `numbers` of all elements. Add these values to the ArrayList `numbers` in this order at **index 0**: 9 8 6 2 4 1.
`System.out.println(numbers);` should produce: [1, 4, 2, 6, 8, 9]
4. Loop through `numbers` backwards and print: 9, 8, 6, 2, 4, 1
(Make sure there is no comma at the end!)
5. Declare and instantiate an ArrayList of String objects called `names`.
6. Add these values to the empty ArrayList in problem 4 in this order:
Sam, I, Am, Green, Eggs
`System.out.println(names);` should produce: [Sam, I, Am, Green, Eggs]
7. Loop through `names` in problem 4 forwards with a For-Each loop to print:
Sam, I, Am, Green, Eggs **(Make sure there is no comma at the end!)**
8. Create a new ArrayList<Integer> called `values` that contains: [2, 3, 5, 1, 7, 9, 11, 12].
9. Write a code segment that will change the odd integers in `values` to be twice their old value.
Then print the ArrayList to verify it has been done correctly.
10. Write a code segment that will remove any integer in `values` that is less than 6. **Then print the ArrayList to verify it has been done correctly.**
11. Suppose `words` is an ArrayList<String> and is initially empty.

What would be the contents of words after the following segment is executed? Put your answer in a comment.

```
words.add("I");  
words.add("Not");  
words.add(1, "Do");  
words.add("Green");  
words.add("Eggs");  
words.add("I");  
words.add("Am");  
words.add(4, "Like");  
words.add("Sam");
```