## **Exercises: Streams Part 2**

For these exercises, start with a List of Strings similar to this:

- List<String> words = Arrays.asList("hi", "hello", ...);
- **1.** Produce a single String that is the result of concatenating the uppercase versions of all of the Strings. E.g., the result should be "HIHELLO...". Use a single reduce operation, without using map.
- 2. Produce the same String as above, but this time via a map operation that turns the words into upper case, followed by a reduce operation that concatenates them.
- **3.** Produce a String that is all the words concatenated together, but with commas in between. E.g., the result should be "hi,hello,...". Note that there is no comma at the beginning, before "hi", and also no comma at the end, after the last word. Major hint: there are two versions of reduce discussed in the notes.
- **4.** Find the total number of characters (i.e., sum of the lengths) of the strings in the List.
- 5. Find the number of words that contain an "h".