LAB ASSIGNMENT 9

DUE TO NEXT LAB

1. Open the **animal-monitoring-v1** project and check that it runs. Now rewrite the `printList` method in the `AnimalMonitor` class to use a lambda, just as we did in the lecture. Now rewrite each of the variations that are possible.

2. Rewrite the `printSightingsOf` method in the `AnimalMonitor` class to use streams and lambdas. Test to make sure that your project still works as before.

3. Write a method in the `AnimalMonitor` class to print the details of all the sightings recorded on a particular dayID, which is passed as a parameter to the method.

4. Write a method that used two filter calls to print details of all the sightings of a particular animal made on a particular day— the method takes the animal name and the day ID as parameters. Does the order of the two filter calls matter in your solution? Justify your answer.

5. Write a method to print the counts of all sightings of a particular animal. Your method should use the map operations as part of the pipeline. If a pipeline contains a filter operation and a map operation, does the order of the operations matter to the final result? Justify your answer.

6. Rewrite the `printEndangered` method in your project to use streams and test that it works correctly. Detail how you tested this method in your report.

7. (For the bored) There is a special "::" notation in Java that can be used with lambdas. Research the syntax, and rewrite `printSightingsBy` to use this syntax. Does the operation of the method change?

8. (For the bored) Add a method to AnimalMonitor that takes two parameters, a spotter-ID and a day-ID and returns a String containing the names of the animals seen by the spotter on that particular day. You should include only animals whose sighting count is greater than zero. Now add a method that takes an animal and a day-ID and returns the spotters who saw this animal, if any, on that particular day.