Part 2: Triggers (CompositeTriggers)

 (15/15 points)
COMPOSITE TRIGGERS

So the triggers from the previous page are mildly interesting, but we want to do better: we want to 'compose' the earlier triggers, to set up more powerful alert rules. For instance, we may want to raise an alert only when both "google" and "stock" were present in the news item (an idea we can't express right now).

Note that these triggers are *not* word triggers and should *not* be subclasses of `WordTrigger` .

PROBLEM 6

Implement a NOT trigger (`NotTrigger`).

This trigger should produce its output by inverting the output of another trigger. The NOT trigger should take this other trigger as an argument to its constructor. (Why its constructor? Because we can't change what parameters `evaluate` takes in... that'd break our polymorphism). So, given a trigger `T` and a news item `x` , the output of the NOT trigger's `evaluate` method should be equivalent to `not T.evaluate(x)` .

When this is done, the `NotTrigger` unit tests should pass.

Canopy specific instructions: Every time you modify code in `ps7.py` go to Run -> Restart Kernel (or hit the CTRL with the dot on your keyboard) before running `ps7_test.py` . **You have to do this every time you modify the file `ps7.py` and want to run the file `ps7_test.py`** , otherwise changes to the former will not be incorporated in the latter.

PROBLEM 7

Implement an AND trigger (`AndTrigger`).

This trigger should take two triggers as arguments to its constructor, and should fire on a news story only if *both* of the inputted triggers would fire on that item.

When this is done, the `AndTrigger` unit tests should pass.

PROBLEM 8

Implement an OR trigger (`OrTrigger`).

This trigger should take two triggers as arguments to its constructor, and should fire if either one (or both) of its inputted triggers would fire on that item.

When this is done, the `OrTrigger` unit tests should pass.

Note: In addition to the three classes in this problem (`NotTrigger` , `AndTrigger` , and `OrTrigger`), please provide your definitions of `WordTrigger` and `TitleTrigger` in the following box.