Junit Lab

Use Junit 4.

Create a series of Junit 4 tests, there is an example in AnalyzerTest.java.

The tests should have complete code coverage for Analyzer.java and JSoupScraper.java.

Additionally, write a program that checks the sentiment of five web pages and returns the names of the web page(s) with the most negative and most positive page value.

Write unit tests for the new function(s).

To create a new analyzer use the following code:

Analyzer analyzer = new Analyzer();

To store a site as an object, use the JSoup scraper as follows:

Document doc = JSoupScraper.getWebsiteContent(<https://seanpgrimes.com>);

Once you have the document, search it for a specific tag or tags.

One tag example:

Elements elements = JSoupScraper.selectElementsFromDocument(doc, "strong");

Multiple tags can be analyzed at once by comma separating them as in this multi tag example:

Elements elements = JSoupScraper.selectElementsFromDocument(doc, "strong, h1, h2");

Then loop through all the elements and add all of their sentiment values.

Add jsoup’s jar to the build path for your project in Eclipse or IntelliJ.

If you want to use a make file it is there for UNIX based machines, delete this. If you are using it, instructions are included in a README in the directory. Only use this if you know how to do code coverage from the command line.

Source folder:

Analyzer.java – Produce a sentiment value for an expression. The greater the magnitude of the value, the stronger the sentiment. A positive value greater than 3 is a positive sentiment. A negative value less than 3 is a negative sentiment. A value between negative 3 and positive 3 inclusive is a neutral sentiment. (For those that started early, neutral was defined as 0.) For now, a neutral site is ([www.greattreks.com](http://www.greattreks.com) with the tags h1,h2,strong.)

When you test a page, you need to know what the sentiment score for the page will be. Some live pages, like a news site will constantly update, so they may be difficult to consistently test.

To get used to the system, you could test with a string of words.

Positive words are: wise, supreme, fair

Negative words are: abolish, bleed, crime

Therefore the statement “wise men bleed after a crime” will have a -1 score. Since the score is between -3 and 3 it would be considered neutral.

“Abolish crime so men do not bleed, bleed, bleed” will have a score of -5 and be considered negative.

“Wise people rule fairly and are supreme leaders. Hopefully wise people will rule.” Will have a score of 4 and be considered positive.

AnalyzerTest.java – Example Unit Test

JSoupScraper.java – Wrapper functions around JSoup.

Main.kt – included but not modified or used directly. This can be deleted if it’s a problem for the IDE. It’s just another example.

Input Directory – Word lists for the sentiment analyzer. Needs to be included, but not modified or used directly.