# Lab 5 – node.js, angularJS and the Twitter API

In this lab we are going to create a node server to read from the twitter stream and create a file like we used in lab 1; tweets.json, as well as serve a web server using express.

Your program should read tweets from the twitter API. The twitter stream must be run from the node server. Your node server must also accept connections on port 3000. When a user connects to <http://localhost:3000> you must serve a web page. Using Angular and jQuery, that web page must be able to make a request to the server to get twitter information, and your application must respond with the correct data. After the query has finished collecting data, save the twitter data in a file called “*yourRSCid*-tweets.json”

There are many methods to accomplish these features in the lab. Any method, so long as it uses all the outlined technologies, is acceptable.

**Objective 1 – For node.js portion of the lab:**

You are to use the express framework to setup your server;

Information about express can be found here: <http://expressjs.com/>

You will be reading from the twitter API;

Information about twitter’s streaming API can be found here;

<https://dev.twitter.com/docs/streaming-apis>

And you might want to check this out: <https://www.npmjs.com/package/twitter>

or (as an example)

Checkout the ntwitter API as an option here (Deprecated, but a good example); <https://github.com/AvianFlu/ntwitter>

You must include a package.json, which will correctly install your apps dependencies by running the command “npm install”

**Objective 2 – For the interface portion of your lab:**

You are to use the angular framework to create a front-end for your application. The interface can be simple however it must have at least the following:

* A field in order to enter search criteria
  + If no query is entered default to tweets in the RPI area –
  + Southwest corner = -73.68,42.72, Northeast = -73.67,42.73
* A button to pull the data
* An input field to tell the application how many tweets to read
* As tweets are read, they should be output to the screen
  + (as in earlier labs formats or not)

Info about angular can be found at <https://angularjs.org/> and <https://angular.io>

[You may wish to stream the data from your server to the web page. Checkout](https://angular.io) <https://www.npmjs.com/package/socket.io>

**Objective 3 – For the output portion of your lab:**

You are building an input file that can be used for your lab1, therefore, your output file needs to be in the proper format so that we may test your output file as the input for lab 1.

As you will be writing data to a file;

You will need the fs module (<http://nodejs.org/api/fs.html>) in order to write to your file.

You will be graded on the following;

Objective 1 – node server and API : 10

Objective 2 – Interface and output : 10

Objective 3 – output portion : 10

Creativity/Coding style : 10

Documentation/Read.me : 10