

# Lab 1 - Web Systems review(-ish): HTML5, CSS3, JavaScript, JSON

Due: Tuesday, January 28, before class.

Let's get those creative juices flowing! This should help get your brain to think in code again, and perhaps spur some ideas for your projects.

We are going to make a Tweet ticker. Tweets are provided in JSON format in the file `TwitterTweets17.json`. It is an array of objects in the form `[{tweet1},{tweet2},{tweet3},...,{tweet100}]`.

Open the JSON file in a text editor to understand the format. You may also want to run it through a JSON linter: <https://jsonlint.com/>

Need a refresher on JSON? Find the official documentation here: <https://json.org/>

Read up on Twitter's documentation here:  
<https://developer.twitter.com/en/docs/tweets/data-dictionary/overview/entities-object>

You get to use all the fancy things right from the beginning now. Bootstrap would be quite handy for this lab. Read up on its documentation here: <https://getbootstrap.com/>

## **The lab:**

Create a Tweet ticker, which will show Tweets from the JSON file, five tweets at a time. The ticker must slowly cycle through the Tweets every three seconds. How you choose to cycle is up to you: you could replace all five Tweets every three seconds, replace one every three seconds, or anything in between.

Use CSS3 transitions and animations (or jQuery animations, if you prefer) to make the Tweets cycle through the ticker smoothly.

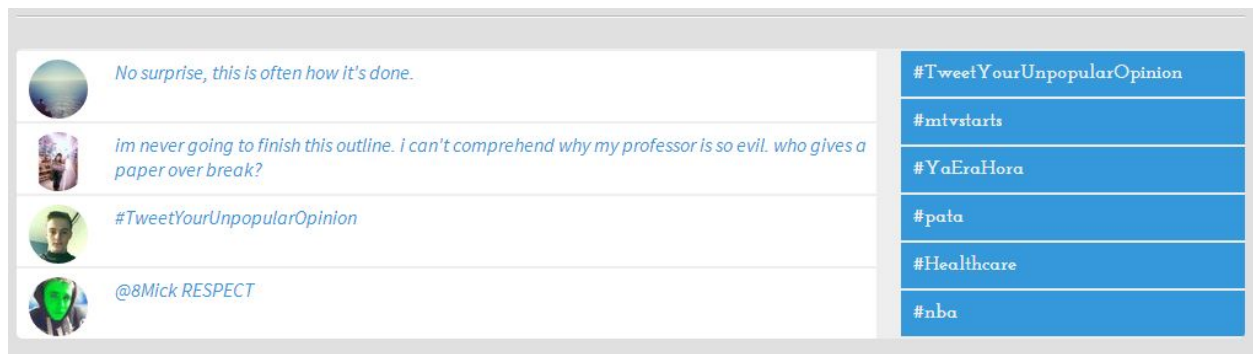
Make the site responsive and clean using Bootstrap. Ideally, it should look good on both desktop and mobile. For this lab only, if you can only do one, prioritize the desktop experience. But do your best to make it look good on both.

Please write a Readme file that documents your thinking throughout the development process. I want to know where you got stuck, how you got unstuck, what was easy, what was difficult, etc.

Put all files into a folder and zip it up. Upload the zip file to LMS. Remember the new naming convention (see the slides from the first day of class for the format).

*Important note:* The JSON file has Tweets that are a couple years old. In part, Twitter has gotten stingier in terms of scraping Tweets. You are free to do anything you'd like with elements that no longer appear (such as broken profile pictures). Tweets may also be totally broken; you may fix and/or remove any such Tweets from the JSON file. Welcome to the ephemerality of the Web.

### Potential example:



Remember: if you copy this exactly, you get a C. Creativity is key! Note too the example only shows four Tweets; your ticker must show five. You can see I added a collection of the most popular hashtags from the collection. There's lots that you can do here.

### Grading rubric:

Formatting and code style:	10 points
Objective 1, processing JSON:	10 points
Objective 2, displaying output:	10 points
Creativity:	10 points
Documentation/Readme:	10 points
<b>Total:</b>	<b>50 points</b>