Sticky notes

This assignment is heavily inspired by this [one](http://www.mit.edu/~6.170/assignment4/assignment4.html) (yes, I think you can handle an MIT assignment!). From the original source:

Sticky notes have been used for a long time to keep track of small snippets of information in an accessible manner. First introduced in 1980, they were marketed by 3M as [Post-it](http://en.wikipedia.org/wiki/Post-it_note) notes. The idea was carried over to the virtual desktop, with Apple's [Stickies](http://en.wikipedia.org/wiki/Stickies_%28software%29) and later Windows 7's [Sticky Notes](http://windows.microsoft.com/en-US/windows7/products/features/sticky-notes). The idea was to create small windows on the screen like Post-it notes where the users can place reminders, notes, clippings, etc.

Your task is to write a web application that allows you to place and edit sticky notes on a web page, and access them later on another machine.

**Functionality**

When arriving at the page, the user must be able register, login and logout using best practices.

Once authenticated, all existing sticky notes are displayed at the same coordinates as where the user placed them. The user cannot see stickies or create new stickies if they are not logged in.

A user can create or delete a sticky note.

The sticky note can be moved in the browser window.

This project makes heavy use of JavaScript/JQuery and Ajax. There will be at least four different Ajax queries. Use POST for all queries except the initial request (why? because POST is used whenever the request is not [idempotent](https://en.wikipedia.org/wiki/Idempotence#Computer_science_meaning)):

* 1. Retrieves all sticky notes (once the user is authenticated)
  2. Create a new note
  3. Move an existing note
  4. Delete a note

One or more PHP scripts will accept the Ajax queries on the server side and process them accordingly. The notes and the user details will be stored in a MySQL database. You can decide on the query protocol (i.e., the POST request name-value pairs) as well as the encoding and content of the response generated by PHP (i.e., json or xml).

**Hints**

The sticky note feel can be accomplished with a combination of html, css and js. Here is a suggested css style:

.sticky{

position:absolute;

width:240px;

height:240px; /\*if no height, the sticky will grow with the text\*/

padding:5px;

background-color:lightyellow;

border:1px solid black;

cursor:move; /\*mouseover cursor indicates the sticky can be moved \*/

}

*Viewing all stickies:*

Your js will add divs with the class sticky to the DOM. Each div should include things like: text content and a delete button. Each div needs a unique id – simplify your life, and use the primary key id returned by php as your div id. Your JS will add as many divs as necessary to the DOM, programmatically setting the id, left, top and z-indices as returned from php.

*Creating a sticky:*

A form is used to create a new sticky; the user will simply provide the sticky text. When creating a new note, the left and top are set to default values, while the z-index is always set to be one higher than the highest z-index of all sticky notes on the page. These values can be determined by either js or php.

*Moving a sticky:*

The sticky divs need to be drag-and-droppable – which is pretty easy with the html5 feature (see this [link](https://html.spec.whatwg.org/multipage/interaction.html#dnd) and as well as the answer in this [link](http://stackoverflow.com/questions/6230834/html5-drag-and-drop-anywhere-on-the-screen) and [here](http://stackoverflow.com/questions/16903889/html-drag-and-drop-without-id)) but sadly this html5 feature is not supported by all browsers, including mobile browsers. I use Firefox, so html5 will be fine. If you like, you can use [JQuery](http://jqueryui.com/draggable/) UI or straight JS and hope for better mobile browser support. Once the user completes the drop, you must send a message to php indicating the id and the new left and top coordinates. Note: you will only be able to drop into another DOM element: this means you will need to make sure the page is covered by a div.

*Deleting a sticky:*

Every sticky div will include an html button to delete. When it is pressed, send an appropriate message to php.

Update the page when you add or delete a sticky: this means you may want to retrieve all notes again, or design your protocol such that php always returns all stickies when a change operation occurs.

**Submittal:**

This is an individual project! You must submit soft and hardcopies of:

* the SQL files to create your table(s)
* your php scripts
* your js, css, and any other files

You will also upload to Waldo2: Create a new 524 folder to hold your application and remember to test!