### Assignment Instructions

# Homework 06 - Twitter, AJAX

Read this entire homework description once through before proceeding.

## Required Reading

* Diving into the Twitter API
  + [http://net.tutsplus.com/tutorials/other/diving-into-the-twitter-api/](http://net.tutsplus.com/tutorials/other/diving-into-the-twitter-api/" \t "_blank)
* Twitter API Documentation
  + [https://dev.twitter.com/docs/api/1.1](https://dev.twitter.com/docs/api/1.1" \t "_blank)
* Using the Twitter Search API
  + [https://dev.twitter.com/docs/using-search](https://dev.twitter.com/docs/using-search" \t "_blank)

## Task

Create a web page that allows the user to search for something on Twitter and pulls up a simple list of tweets, and displays a usable search history.  You must use the Twitter REST API to do this, via the server-side “twitter.php” facilitator script.  Each tweet MUST be in its own structured tag (e.g. <li>, <div>, etc.)--they cannot be mixed together in a single div tag, etc..

Prepare your workspace:

* Use a PHP-enabled Cloud9 workspace
* Copy the “twitter.php” file given to you from this assignment to your Cloud9 workspace
* If you didn’t already do so from class, obtain a Twitter Developer account and create an application
* Edit your twitter.php file and set the consumer key and consumer secret to match those of your application in Twitter

The interface should consist of the following:

* A textbox to search twitter
* A button to submit the search via AJAX
* An area dedicated to show the results of the search
* An area near the search box to show the search history

The results should be a nicely formatted list of tweets.  Tweet text should be displayed as text, to ensure that HTML elements are not embedded on the page.  You should show the name of the author of the tweet along with the text.  You DO NOT need to make URLs in the tweets linkable.

The search history area should be a list of links.  Whenever a search is performed, a new link should appear containing the text of that search.  Each new link, if a user clicks on it, should fill in the search box with the text from the link, and then performs the search.

## API Information

### How to Use twitter.php

The twitter.php file is meant to act as a server-side facilitator to access the Twitter REST API while avoiding the cross domain access policy in browsers.  Since twitter.php will be running on the same server as your project, you will be able to make AJAX calls to it, instead of Twitter directly.  Plus, it also hides your consumer key and secret.

The “twitter.php” file is an alias for the URL “https://api.twitter.com/1.1”. Therefore, any path and query string you put after the “twitter.php” file in your AJAX call will be passed through.

For example:

/twitter.php/search/tweets.json?q=my%20search&count=10

is equivalent to:

https://api.twitter.com/1.1/search/tweets.json?q=my%20search&count=10

### Twitter API itself:

See the Twitter API documentation at: [https://dev.twitter.com/docs/api/1.1](https://dev.twitter.com/docs/api/1.1" \t "_blank)

## Handing in Your Work

* Provide, in the Sakai assignment submission area, a URL to your Cloud9 workspace containing the homework content.

## Grading Criteria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Beginning** | **Developing** | **Accomplished** | **Exemplary** | **Total** |
| Functionality | 3 - 3.4  Lacking much of the critical functionality.  Errors are common and may cause features to fail or appear unimplemented.  Functionality is not apparent to the user when performing behaviors. | 3.5 - 4.4  Some important functions work as described.  Behavior-affecting errors may be present.  Some functionality may seem vague to the user when actions are performed. | 4.5 - 5.4  Critical functions work described.  Some functionality may produce minor errors that do not significantly impact behavior..  Some behaviors might be slightly unclear when performed by the user. | 5.5 - 6  All functionality is as described.  Behaviors make intuitive sense when performed by the user.  Each feature is implemented within the described restrictions. | 6 |
| Design / Usability | 1  Design lacks neatness, appropriate alignment, or contains a significant number of color choices that reduce usability.  Elements are generally lacking any typical behavioral cues. | 1.1-1.4  Design is somewhat neat, has poor in many places alignments, and may have poor color choices that reduce readability or usability.  Many elements may lack typical behavioral cues. | 1.5 - 1.7  Design is mostly neat, but may have poor alignments.  Most elements have typical behavioral cues.  Most critical elements fit within a normal page size. | 1.8 - 2  Design is clean and concise.  Elements used are all clearly marked for behavioral cues (e.g. buttons or links to perform actions, dropdown cues).  All elements are laid out neatly within in a normal page size. | 2 |
| Robustness | 1  Lacks appropriate form validation, allowing errors to be submitted with the form.  Error messages may not be apparent to the user. | 1.1-1.4  Some form functionality is properly validated, and thus some validation errors may be missed and allow invalid submissions.  Most error messages may be repetitive or inconcise. | 1.5 - 1.7  Most critical form functionality is properly validated and do not allow submission.  Most error messages are clear and indicate the issue to the user. | 1.8 - 2  Forms are fully and properly validated and do not allow any data submissions with errors.  Error messages are reported clearly and concisely to the user, and with no severe interruption to user flow. | 2 |

### Supporting Materials

* https://sakai.rutgers.edu/library/image/sakai/binary.gif [twitter.php](https://sakai.rutgers.edu/access/content/attachment/4448be91-5475-44e3-b238-ff418df21e5f/Assignments%202/a00227af-1db9-44a0-9165-ba8b2cce7474/twitter.php" \t "_blank) (2 KB)
* https://sakai.rutgers.edu/library/image/sakai/pdf.gif [Homework06 (1).pdf](https://sakai.rutgers.edu/access/content/attachment/4448be91-5475-44e3-b238-ff418df21e5f/Assignments%202/9f04e7b7-a1de-4acc-b8c6-7c7760746915/Homework06%20_1_.pdf" \t "_blank) (96 KB)