Assignment 04 - AJAX Form

Read this entire homework description once through before proceeding. This assignment is to be completed individually. Work and ideas should not be shared with others.

Reading/Resources

- jQuery AJAX Tutorial (Pages: Ajax, Key Concepts, jQuery's Ajax-Related Methods, Ajax and Forms, Working with JSONP, Ajax Events)
  - http://learn.jquery.com/ajax/
- JavaScript and AJAX
  - http://www.lynda.com/Developer-tutorials/JavaScript-and-AJAX/114900-2.html
- PHP tutorial
  - https://www.codecademy.com/en/tracks/php
- PHP Documentation (Reference)
  - http://php.net/

Task

You will create:

- a working AJAX form with validation in your Cloud9 workspace
  - More details follow below
- a working PHP proxy file to make an API request
- a 5 minute video to quickly demo your form, and also to highlight which part of the JavaScript submit code pertains to each part of the form
  - Say your name in the video
  - Show how putting an invalid start date results in a friendly error message and the form does not submit (network panel in dev tools)
  - Show how putting an invalid end date results in a friendly error message and the form does not submit (network panel in dev tools)
  - Show the code that handles the validation and explain in brief what it checks for.
  - For demoing the working form and Ajax code, you should use dates between 04/01/2017 and 04/08/2017
  - Show how changing the "sort" field changes the results
  - Show how changing the "sort direction" field changes the results
  - Show how entering text into the "body" field changes the results
  - Show the code that makes the AJAX request, and where the form field data comes from, and where you put it in the AJAX request code.
  - Show proxy.php file and explain how it works

The Bootstrap form should include the following fields:

- Already existing in given form:
  - startdate
  - enddate
  - title
  - favorites
  - limit
- To be added to existing form:
  - body
  - sort
  - sort_descending

Validation:

The form MUST validate on submit that all of the following is true:

- The start date field appears to be a valid date
  - "mm/dd/yyyy", where you can have 1-2 digits for month (1-12), a forward slash, 1-2 digits for day (1-31), a forward slash, and exactly 4 digits for year (2000-2099)
- The end date field appears to be a valid date
  - "mm/dd/yyyy", where you can have 1-2 digits for month (1-12), a forward slash, 1-2 digits for day (1-31), a forward slash, and exactly 4 digits for year (2000-2099)

If the form is NOT valid:

- Display the validation errors in the "errors" div.
- The form itself should not actually submit when there is an error. This should be checked in the dev tools network panel to assure the AJAX request did not send..

If the form IS valid:

- When the form is validated, it should successfully sends an AJAX request to proxy.php.
  - For success response, display the response in the output div.
    - When results are shown in the output area, add to your "index.css" file the styles that do the following:
      - Make titles bold
      - Make dates italic
      - Make favorites bold, and have a red background, have a little bit of padding, and white text color
  - For an error response, display the response in an error div.
- During the Ajax call, display the modal with ajax-loader.gif to show something happening.

PHP proxy file:

Since the API can not be accessed directly from inside a browser. You need to create a PHP proxy file. This should be called proxy.php. This file should be called by your Ajax request, make the API request, and pass both a success and error response back to your Ajax call.

Restrictions

Perform this task while only using Bootstrap components, jQuery, and PHP. This assignment is to be completed individually. Work and ideas should not be shared with others.

Extra Credit

- 15% extra credit - Instead of using the HTML version of the API list in the documentation, use the GET JSON version documented under *GET News Articles JSON Endpoint Documentation*. This endpoint only differs by its URL and that it returns JSON. Parse this response and have it display in page with the same layout and styling as the original HTML response and add the link included in the JSON response to the title.

  OR
- 30% extra credit - Instead of using the HTML version of the API list in the documentation, use the POST JSON version documented under *POST News Articles JSON Endpoint Documentation.* This endpoint differs by its URL, that it returns JSON and that it is a POST instead of a GET request. Parse this response and have it display in page with the same layout and styling as the original HTML response and add the link included in the JSON response to the title.

Handing in Your Work

- Upload your video to YouTube or screencast.com (You may make the video "public" or "unlisted", but it cannot be set to "private".)
- In the Sakai project text box:
  - Submit the link to your video.
  - Submit the link to your workspace.
  - Submit the link to the page you created.

- Note: DO NOT make changes to your assignment after the deadline. If you want to continue experimenting, you should make a copy of your assignment in a different folder.

Grading

- 6% of total grade
- This assignment is to be completed individually. Work and ideas should not be shared with others.
- Grade will be reduced by 50% for any assignment submitted without a video or for a video that is not viewable.
- Grade will be reduced by 50% for workspace not shared correctly.
- Grade will be reduced by 10% for assignment not submitted correctly.
- Grade will be reduced by 10% for video not properly uploaded.
- Extra Credit (one or the other)
  - 15% extra credit - Instead of using the HTML version of the API list in the documentation, use the GET JSON version documented under *GET News Articles JSON Endpoint Documentation*. This endpoint only differs by its URL and that it returns JSON. Parse this response and have it display in page with the same layout and styling as the original HTML response and add the link included in the JSON response to the title.
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