Assignment 5 (HF, major subject)

Due: Mon 23.11.2015; 12:00h (1 Week)

Goals

After doing these exercises,

- You are able to work with JavaScript to perform AJAX requests
- You can write full-stack asynchronous web-apps with *AMP.
- You can discuss the benefits and drawbacks of Vanilla JS

Task 1: Vanilla JS

Many people argue that Vanilla JS is superior to many JavaScript frameworks, such as jQuery. This is surprising given the high market share of jQuery.

Write a short (max. 500 words) summary about the possible reasons why Vanilla JS might be preferable. We suggest you cover these aspects:

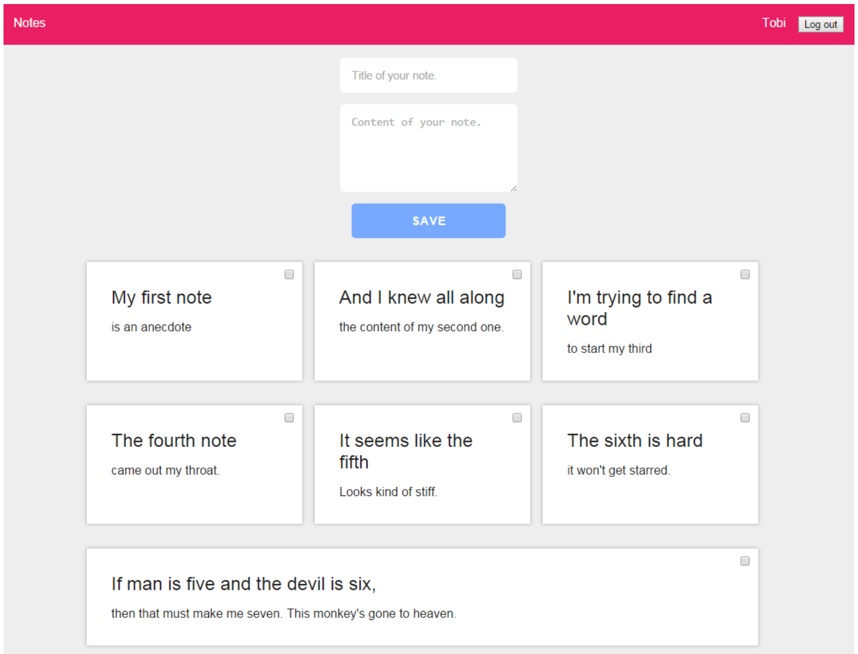
- What is Vanilla JS?
- Why is it better?
- Which metrics indicate its superiority over other libraries?
- Which drawbacks does it have?

Here are some links to get you started:

1. http://t3n.de/news/vanillajs-580401/ (German)
2. http://vanilla-js.com/
3. http://gomakethings.com/ditching-jquery-for-vanilla-js/
4. https://plainjs.com/

Put your summary as a .txt, .md or .pdf file in the folder ‘task1’.

Task 2: Note-Taking Web-app – now with AJAX!



My first note
is an anecdote

And I knew all along
the content of my second one.

I'm trying to find a word
to start my third

The fourth note
came out my throat.

It seems like the fifth
Looks kind of stiff.

The sixth is hard
it won't get starred.

If man is five and the devil is six,
then that must make me seven. This monkey's gone to heaven.

Last week, you created a note taking app with plain PHP and MySQL. One drawback of using only these two technologies is that the communication between the browser and the server is synchronous, i.e. the page is refreshed entirely even if only one note is added or deleted.

We provided a sample solution on GitHub:
https://github.com/MIMUC-MMN/assignments-ws-15-16/tree/master/assignment04/Task2_SampleSolution_NotesApp

To improve the usability and performance of the web site, let us use AJAX to add and delete the notes. That way, we can prevent a complete page refresh and work much more efficiently.

The page should be loaded **only once** after the user is logged in: Adding a note is done asynchronously using `$.post()`. In the `success` handler function you should take care of inserting the newly added note into the web-page. The same goes for deleting a note.

Hints, tips, remarks:

- Create a php script that responds to the $.post() requests on the server side, i.e. serving as target URL. It also makes sense to write two separate scripts for adding and deleting notes.
- To make your life easier, the server scripts should respond with JSON content. Use `json_encode()` in combination with the header '`Content-type: application/json`' to achieve this.
- You (probably) do not need to modify the DBHandler class.
- We propose you use jQuery, as it might also be part of the exam. However, if you want to stick to Vanilla JS, that's also very fine. Just make sure your code is readable.

- So far, there are checkboxes to delete the notes. With AJAX, this is not really necessary anymore. You might want to add a “trash can button”, that immediately deletes the note with an AJAX request.
- Animations are nice. Fade out deleted notes.
- If anything is unclear, please do not hesitate to ask us.

Put all your source code files and resources in the folder ‘task2’.

Submission

Please turn in your solution via UniWorX. You can form groups of up to three people.
After the submission deadline, push your solution to our GitHub repository.