

# Code review

## Overview

This is a small part of the helper functions used in our project. These functions are the implementation of dynamically updating page (in this case, page with table of the documents) using AJAX techniques and API methods on the backend side (HTTP requests to the server).

## Goals

To make the code more readable, decrease amount of possible bugs and optimise requests to the server

## Usage Scenarios

Updating information for documents, managing the catalogue of them

## Class Diagrams

No need for classes here

## Code

### Categories for review

1. Design decisions

Example:

[1.1] NameTTT: You should use HASH\_TABLE for 'yyy' instead of ARRAY.

[1.1.1] Owner: the decision of using ARRAY is based on the fact that ARRAYS are lighter than HASH\_TABLES

[1.1.2] NameTTT: That might be true, but you are compromising execution time, 'yyy' is used to perform several searches. Having a HASH\_TABLE one can have constant complexity in searching

[1.1.3] Owner: Ok, I will change the design and implementation. [CLOSED]

2. *API design*
3. Architecture (including inheritance hierarchy, if any)
4. Implementation techniques, in particular choice of data structures and algorithms
5. Contracts
6. Programming style, names
7. Comments and documentation

### 1. Design decisions

[1.1] Reviewer1: There are 5 calls of .click() which take a function as a parameter. Two of the functions(str:32,85) have "return false;" whereas the remaining functions(str:43,116,152) do not have "return \*;", they return "undefined" by default. Strings "return false;" could be not required or all such functions should have the "return false;"

[1.1.1]Owner: You're right, we don't need "return" in these functions. I've done this for debug purposes to force the page not to reload in case of error in code. I'll fix it [**TO BE IMPLEMENTED**]

### 2. API design

[2.1] Reviewer2: magic numbers used (lines 13–19). Consider using enumerated constants instead (<https://goo.gl/MqZEdi>).

[2.1.1] Owner: It weren't magic numbers, it were numbers on API side and documentation, so for me it was clear to use them. I don't think that we need constants for that, this is extra complexity.[**TO BE DISCUSSED**]

[2.1.2] Owner: Ok, I got it. I should add more comments for these lines instead. [**TO BE IMPLEMENTED**]

### **3. Architecture (including inheritance hierarchy, if any)**

#### **4. Implementation techniques, in particular choice of data structures and algorithms**

[4.1] Reviewer3:Also in str:13 You can also use "switch" as in str:66, instead of the operator of the conditions "if".

[4.1.1] Owner: Right, I should. [**TO BE IMPLEMENTED**]

[4.2] Reviewer3:In functions the conditional operator is used, and in its field there is such an equivalence record ("==="), it seems to me better to use another variation of equivalence, namely ("===="), because it is better and does not use the method of parameter translation in one data type(str:13,15,133,134,135,137,138)

[4.2.1] Owner: I didn't know about such possibility, I'll fix it. [**TO BE IMPLEMENTED**]

[4.3] Reviewer2: ineffective usage of JQuery (lines 28, 29; 65, 70, 75; 52, 60). You fetch the same node twice, clear its contents and append, but it can be done in a single line:

```
$(something).html(html)
```

[4.3.1] Owner: You're right, this would be effective. I'll fix it. [**TO BE IMPLEMENTED**]

[4.4] Reviewer2: ineffective usage of JQuery (lines 52, 60, 82, 105, 117). Use variable instead.

[4.4.1] Good suggestion, I'll change it. [**TO BE IMPLEMENTED**]

#### **5. Exceptions handling - Contracts**

[5.1] Reviewer2: no data validation (lines 86–108). You can use jquery-validate library.

[5.1.1] Owner: Yeah, right, I thought about it, it would be hard, but more stable in this case. I should add a check. [**TO BE IMPLEMENTED**]

[5.2] Reviewer2: Results of `addDocument` are ignored (line 103). No error messages are shown to the user, no callbacks provided.

[5.2.1] Owner: The method itself handle such cases. No need for extra work. But you didn't see a method so good remark. [**CLOSED**]

#### **6. Programming style, names**

[6.1] Reviewer4: On lines 66, 71, 92, 96, 130-132 you use single quotes ('), while in other cases double quotes ("). You should choose a single style for surrounding quotes.

[6.1.1] Owner: Yes, this is a bad habit to use always different quotes. Thank you for the remark, I'll fix it. [**TO BE IMPLEMENTED**]

[6.2] Reviewer4: On line 92 typo in word 'besteller'.

[6.2.1] Owner: Oh, how could that happen? [**TO BE IMPLEMENTED**]

[6.3] Reviewer2: `name` attribute is used to hold the value (lines 66, 87). This is indescriptive, better use `data-` attributes (e.g. `data-type`, `data-id`).

[6.3.1] Owner: Yeah, maybe, but it seems simpler for me. But you have a point, if I handle a lot of data from that object, it would be better to use your construction. [**TO BE IMPLEMENTED**]

## 7. Comments and documentation

[7.1] Reviewer5: it would be great if you added comments for lines 85 and 134-135, and explained cases in lines 66-75

[7.1.1] Owner: Comments will be added, I thought the code itself and previous comments were clear enough. **[TO BE IMPLEMENTED]**

[7.2] Reviewer6: I think it will be very nice to explain creation of table at 11 - 21 lines to those people who do not know HTML and JS at all.

[7.2.1] Owner: The only problem with understanding could be there is lack of knowledge about tags and language syntax. But this is a work for official documentation of language/technology.**[CLOSED]**

[7.3] Reviewer2: inconsistent usage of indentation in comments: spaces and tabs are mixed, text is shifted visually (<https://screenshots.firefox.com/ynQAQzEels6c0kxC/gist.github.com>)

[7.3.1] Owner: This is a fault of gist and IDE, I don't know why, but PhpStorm uses spaces to subline code while on Gist document you can see tabs. But yeah, I should fix it. **[TO BE IMPLEMENTED]**

[7.4] Reviewer2: functions' documentation do not follow JSDoc format.

[7.4.1] Owner: There wasn't a requirement for such comments, so I can't say we need them in our project. It would be better to use them in some cases, but still for me this is an redundant work.**[TO BE DISCUSSED]**

[7.4.2] Owner: So for this project I don't see a need for JSDoc format. **[CLOSED]**