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Javascript Technology: Module Pattern

Corresponding Author [1,*], Co-Author [2] and Co-Author [2*]

[1]Department of XXXXXXX, Address XXXX etc.
[2]Department of XXXXXXXX, Address XXXX etc.

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ABSTRACT

Motivation: This is better looking sample text compared to the original sample text that just repeated the word "Text". This is better looking sample text compared to the original sample text that just repeated the word "Text". This is better looking sample text compared to the original sample text that just repeated the word "Text".

Contact: name@bio.com

1 INTRODUCTION

Since Javascript was not designed with object orientation in mind certain tricks are required. The Module Pattern is one such trick. It implements classlike behaviour by allowing public and private properties in one single datastructure. This keeps the properties out of the global namespace and prevents unwanted modification from outside the structure. The Module Pattern is an entirely separate alternative to Javascript objects.

2 MODULE PATTERN:

2.1 Overview:

As mentioned in the Introduction, the Module Pattern allows public and private properties in one datastructure. This is achieved by creating an object inside an anonymous function, that is called immediately after it's definition, and returning this object. All public methods and variables are defined as part of the object, all private ones are created independent of it. The return value is saved in a variable thus allowing it's properties to be accessed from outside the function's scope.

```
1 var My_Module = (function(){
2   var test = 3;
3 ]());
```

2.2 Strengths and Weaknesses of the Module Pattern:

A big advantage of the Module Pattern is scalabilty. Modules are isolated pieces of code and can be added or removed fairly easily since they are mostly independent of other code. The isolation also allows for a simple distribution of work among several programmers as they can be assigned different Modules to implement and can work separately. Restricting variables to a local scope leads to less clutter in the global namespace. This, in addition to the fact that the public variables are bound to one module variable, prevents variable name conflicts which can be a problem when importing libraries or working with a team of developers. On top of that Modules can be extended to add more methods and variables when required.

The Module Pattern also has a few downsides. For one, inheritance requires the inheriting Module to explicitly copy all properties of the super Module. Also it is not possible to manipulate the private properties of a Module from outside the Module's scope. Not even while extending it. Another problem is that changing the visibility of a property requires the programmer to edit every line of code that contains said property. This is the case because visibility is not defined by a single keyword but by whether the property is part of the returned object inside the Module so it is either accessed by "module.propertyïf it is public or just "propertyïf it is private.

2.3 Global Variables:

Global variables can make code hard to read or maintain since it is difficult for humans to determine where in the code they are used. The Module Pattern allows to import global variables into a Module explicitly by using them as parameters for the Module's anonymous function.

2.4 Inheritance:

To make a Module inherit from another Module

2.5 Augmentation:

2.6 loading order: cross-file private state...

3 OUR WEB APP(MORE DESCRIPTIVE TITLE REQUIRED - OVERVIEW:

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4 HOW MODULE PATTERN HELPED OUR APP (BETTER TITLE PLS, JEEBUS)

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*to whom correspondence should be addressed

"Text". This is better looking sample text compared to the original sample text that just repeated the word "Text".

5 CONCLUSION/SUMMARY

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6 EVERYTHING PAST THIS LINE IS A RELICT FROM THE DEFAULT TEMPLATE

7 APPROACH

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8 METHODS

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- for bulleted list, use itemize
- for bulleted list, use itemize
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Table 1. This is table caption

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row2	row2	row2	row2
row3	row3	row3	row3
row4	row4	row4	row4

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Abbildung 1. Caption, caption.

Abbildung 2. Caption, caption.

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9 DISCUSSION

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10 CONCLUSION

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LITERATUR

Bofelli,F., Name2, Name3 (2003) Article title, *Journal Name*, **199**, 133-154.

Bag,M., Name2, Name3 (2001) Article title, *Journal Name*, **99**, 33-54.

Yoo,M.S. *et al*. (2003) Oxidative stress regulated genes in nigral dopaminergic neurnol cell: correlation with the known pathology in Parkinson's disease. *Brain Res. Mol. Brain Res.*, **110**(Suppl. 1), 76–84.

Lehmann,E.L. (1986) Chapter title. *Book Title*. Vol. 1, 2nd edn. Springer-Verlag, New York.

Crenshaw, B.,III, and Jones, W.B.,Jr (2003) The future of clinical cancer management: one tumor, one chip. *Bioinformatics*, doi:10.1093/bioinformatics/btn000.

Auhtor,A.B. *et al*. (2000) Chapter title. In Smith, A.C. (ed.), *Book Title*, 2nd edn. Publisher, Location, Vol. 1, pp. ???–???.

Bardet, G. (1920) Sur un syndrome d'obesite infantile avec polydactylie et retinite pigmentaire (contribution a l'etude des formes cliniques de l'obesite hypophysaire). PhD Thesis, name of institution, Paris, France.