Implementing the backoffice of the SPCV website

Ricardo Rodrigues

Activities Report

Abstract—This report describes the activity developed in this semester for the project "Implementing the Backoffice of the SPCV website". We started by analyzing what was made in the previous semester and followed to the present phase of the project.

At the present phase of the project, it was without a platform to support it. This semester, the job proposed was the choosing of a platform. The available platforms were Zend Framework, that provided a strong and very flexible basis, but was hard to learn, and Wordpress, that offered a complete website with back-end and easy to learn, but not very flexible.

The platform chosen was Wordpress, since it's easier for newcomers to learn how to use it.

Index Terms—SPCV, Front-end, Back-end, Conceptual Model, platform, web, Zend Framework, Wordpress.

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1 INTRODUCTION

THIS report describes the activity being developed under Independent Studies IV class. The activity in question is the implementation of the back-office of the Sociedade Portuguesa da Ciência de Videojogos (SPCV)'s website.

This report will describe the development made in this activity dividing it in several steps. First it'll show what was already created and what was the basis of the work, after that it'll be discussed what was made throughout the semester, including the meetings taken and possible implementations of the project.

2 BASIS

This activity is a continued work over the last semester, which gives the project some basis.

Previously the website was under Google Sites and was managed by professor Rui Prada, but because of the platform inflexibility that web-page was deprecated and a new one was needed.

The project's basis is a conceptual model described below for a new web-page to replace the deprecated one.

2.1 Conceptual Model

This model was created in the past semester and contains a description of the website and how it should work. The diagram can be seen in figure 3. It gives an overview of the components that should exist in the website and how they are connected.

Additionally a document was created explaining in detail each component and how they should be stored.

If you wish to see the full document please visit https://www.overleaf.com/read/xrjmyvfbkvkd.

3 FIRST MEETING

The first meeting this semester was at April 10th with assistant professor Rui Prada. It was first scheduled to be one day earlier, but had to be postponed due to lectures overlapping with the meeting.

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	ACTIVITY						DOCUMENT						
(1.0) Excellent	Object×2	Opt×1	Exec×4	Summ×.5	Concl×.5	SCORE	Struct ×.25	Ortog×.25	Exec×4	Form ×.25	Titles ×.5	File ×.5	SCORE
(0.8) Very Good													
(0.6) Good	1.0	1.0	1.0	1.8	0.8		1.0	0.8	0.8	1.0	1.0	1.0	
(0.4) Fair													
(0.2) Weak													

Myself and the professor were present in this meeting, that took place in the professor's office, as well as another student, Ana Beatriz Alves, through a skype call. We discussed the present state of the website and what we'd be developing this semester.

The present state of the website is already discussed in the Basis section (section 2).

As for what we'd develop, Professor Rui Prada asked us to start prototyping pages with a platform that could have a small learning curve, so that, in the following semesters, new students can easily continue developing the page.

The discussed platforms were Zend Framework and Wordpress. It was up to the students to study the platforms and choose the appropriate one to implement the conceptual model on.

Each platform was studied and will be explained in this report.

4 ZEND FRAMEWORK

The first platform that was studied was Zend Framework.

Figure 1. Zend Framework logo.

It's a PHP: Hypertext Preprocessor (PHP) framework that allows for it's users to develop a website (front-end and back-end) with the help of library filled with reusable code for forms, tables and a lot of other interactive objects along with the usage of templated pages. For more information and to download it visit http://framework.zend.com/.

4.1 Why Use It?

4.1.1 Advantages

After studying the conceptual model for the backoffice, creating an environment that fits our needs would seem the best option for having exactly what we want and Zend Framework offers that possibility.

This framework allows a Object Oriented Programming and for easily creating connections with the database. To create the representation of the conceptual model in the database and the framework is creating certain objects as classes and use them in the Controllers classes, which are classes as well, so any developer would feel at ease with developing in Zend. To change the layout for the whole application is quite simple, giving the possibility of creating the front-end all in one place.

4.1.2 Disadvantages

Even though this framework is great and can achieve what we want it would require some time and effort. It takes up a lot of time to understand well what is happening, for example, it's hard to understand the connection between the several classes in the project, since much of the connection is made by the framework.

Since this project is to be developed by students that hardly ever touched this kind of frameworks, it would be hard to maintain and develop any further while using Zend, since the learning curve is too steep.

5 WORDPRESS

The second platform that was studied was Wordpress.

Figure 2. Wordpress logo.

WordPress is the most popular blogging system in use on the Web, it's also a free and open-source tool and a Content Management System (CMS) based on PHP and MySQL. Features include a plugin architecture and a template system, For more information and to download it visit https://wordpress.org/.

5.1   Why Use It?

5.1.1   Advantages

Wordpress offers a back-end User Interface (UI) that allow for a visual creation of pages anywhere without the need for coding. This way any user can create pages and content easily without great effort. Figure 4 exemplifies the creation of a page in Wordpress, as can be seen with a click of a button the page is created.

It also allows the addition and creation of plugins, these allow for a greater customization of the website. And the offer of free plugins allow for a broaden choice of features needed for the website.

5.1.2   Disadvantages

Even though this platform offers many features and is easy to learn, the conceptual model and some of the features in it described cannot be fully implemented easily. The modification of the platform to allow all of the functionality desired and described in the conceptual model would require modification of the platform (through plugins or not) that are not so easy to learn.

6   THE PLATFORM CHOICE

After studying the platforms described in sections 4 and 5, a choice had to be made. After exchanging some emails with the professor about this subject, the chosen platform was Wordpress.

It has some disadvantages, but it is easier to use and learn, and using the plugin Custom Post Types (https://wordpress.org/plugins/types/) it's possible to implement many of the features described in the conceptual model, such as defining types for courses and bibliographic references.

7   CONCLUSION

This website is far from complete. The platform as been chosen, but the website is in it's early stages. With the continued work of all involved in this project the website will continue to evolve.

In this step, the choice between the platforms was not easy, on one hand we had a website build ground up with all the features of the conceptual model implemented using Zend Framework, but with a steep learning curve, on the other hand we had a preset Wordpress's website that we needed to modify in order to have those features but that was easier to learn. Choosing Wordpress was the correct choice since the project will be developed by students with few experience in this kind of platforms.

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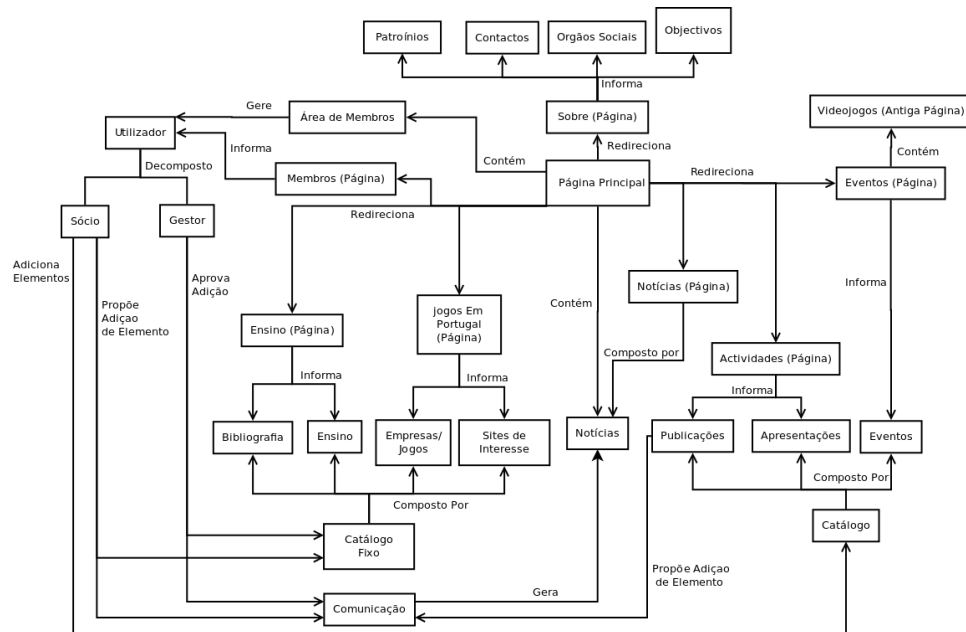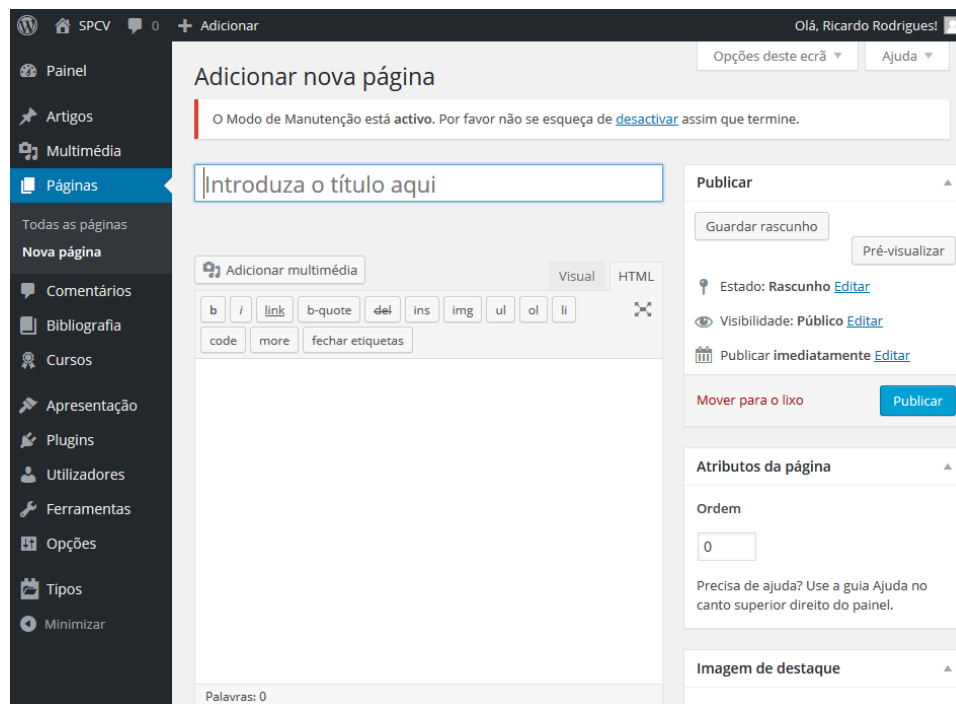
APPENDIX
FIGURES

Figure 3. Conceptual Model

Figure 4. Adding a new page in Wordpress example.